

**State of Board of Health
Agenda
September 13, 2018 – 9:00 a.m.
Perimeter Center – Boardroom 2**

Call to Order and Welcome	Faye Prichard, Chair
Pledge of Allegiance	Linda Hines, RN
Introductions	Ms. Prichard
Review of Agenda	Joseph Hilbert, MPA Deputy Commissioner for Governmental and Regulatory Affairs
Approval of June 7, 2018 Minutes	Ms. Prichard
Remarks to the Board of Health	The Honorable Daniel Carey, MD Secretary of Health and Human Resources
Commissioner’s Report	M. Norman Oliver, MD, MA State Health Commissioner
Break	
Regulatory Action Update	Mr. Hilbert
Public Comment Period	
<u>Board Action Item</u>	
Board of Health Annual Report – Virginia’s Plan for Well-Being	Jeff Stover, MPH Acting Deputy Commissioner for Population Health
Trauma System Plan	Gary Brown, Director Office of Emergency Medical Services
Working Lunch Housing as a Social Determinant of Health	Demetria Lindsay, MD, Director, Norfolk Health District
<u>Regulatory Action Items</u>	
Regulations for Disease Reporting and Control 12VAC5-90 (Fast Track Amendments)	Laurie Forlano, DO, Director Office of Epidemiology
Regulations for Recreational Water Advisories 12VAC5-135 (Fast Track Regulations)	Dr. Forlano Office of Epidemiology

Food Regulations
12VAC5-421
(Fast Track Amendments)

Allen Knapp, Director
Office of Environmental Health Services

Member Reports

Proposed Amendments to Board of Health Bylaws Mr. Hilbert

2019 Board Meeting Schedule Ms. Prichard

Other Business

Adjourn

August 27, 2018

MEMORANDUM

TO: State Board of Health Members

FROM: Jeff Stover
Operations Director and Acting Deputy Commissioner for Population Health

SUBJECT: Virginia Plan for Well Being/Board of Health Annual Report

Attached for your review is the draft copy of Virginia's Plan for Well Being – Annual Report 2018. The draft report provides a status update concerning the 28 metrics across the Plan's four aims:

- Healthy, Connected Communities
- Strong Start for Children
- Preventive Actions, and
- System of Health Care

Upon your approval of the draft report, the Virginia Department of Health will submit it to the Governor and General Assembly, in compliance with the Board's annual reporting requirement pursuant to § 32.1-14 of the Code of Virginia.



Virginia's Plan for Well-Being

2016-2020

Annual Report, 2018

Virginia Department of Health
109 Governor Street
Richmond, VA 23219
www.vdh.virginia.gov

Annual Report on the Virginia Plan for Well-Being

Introduction

The Virginia Department of Health continues to focus efforts on Virginia's Plan for Well-Being as a framework for improving the population's health. Going beyond the individual to address health outcomes at the population level requires changing the mechanisms that connect social status and health, changing the social factors themselves, or changing fundamental environmental conditions, such as transportation systems or affordable housing. A strong partnership among primary care, public health, Medicaid and Medicare is essential if we are to see real change in health outcomes in Virginia. This work must include laying a foundation for improvement by increasing our collective capacity to work effectively toward a common aim, enhancing belief in collective self-efficacy and allowing ourselves to continually address social determinants in health.

In 2016, the Virginia Board of Health adopted the Virginia Plan for Well-Being as its annual report to the General Assembly. The Plan outlines a path for improving the health and well-being of all Virginians. It focuses on four aims, and it lays out 13 goals and 29 measures to track our progress toward making Virginia the healthiest state in the country. Two years into the Plan, we can say that we still have a long way to go to reach this goal.

At the state level, many of the tracked measures show improvement. However, these improvements are not necessarily statistically significant. Moreover, they mask a concerning underlying reality: there are huge disparities in health status across the Commonwealth, depending on where one lives. In rural Southwest and Southside Virginia (as well as in other rural portions of the state) and in communities of racial and ethnic minorities, people get sick more often, have higher rates of diseases, get ill at a younger age, and die at a younger age than do other Virginians. If we did nothing other than eliminate the health inequities between urban and rural Virginia, and between racial and ethnic minorities, Virginia would likely be among the top 10 healthiest states in the country. This fact underscores the importance of seeing population health efforts in the Commonwealth through a health equity lens.

The 2018 update of Virginia's Plan for Well-Being measures highlights where we are moving in a positive direction and where we need to continually focus our efforts and resources as a Commonwealth. We now have a better understanding of strategies and projects that relate to Plan measures under the four aims. The use of this information is informing development of a state health assessment to guide the next iteration of the Plan for Well-Being.

Excellent or high-quality healthcare cannot assure an individual or population's health—health is primarily influenced by genetic predisposition, social circumstances, environmental exposures, behavioral patterns, and health care. We know that 75% of healthcare expenditures are related to chronic care, 5% of individuals account for 50% of spending, and only 3.5% of expenditures are for prevention and public health services. Therefore, the value of integration of public health and health care, and addressing social determinants of health, generally requires engagement of the larger community beyond public health and primary care, including those involved in social justice, education, job development, housing, social services, parks and recreation, transportation, business, the faith community, and advocacy groups. The deeper an initiative goes in addressing the social determinants of health, the more sustainable the health improvement gains will be.

Unequal health opportunity

Today, all Virginians do not have equal opportunity to healthy lives. In 2012, the VDH Office of Health Equity developed a measure, the Health Opportunity Index (HOI), that quantifies this opportunity. [The Virginia HOI](#) consists of 13 indicators that act as the building blocks of the HOI. These indicators were chosen following an

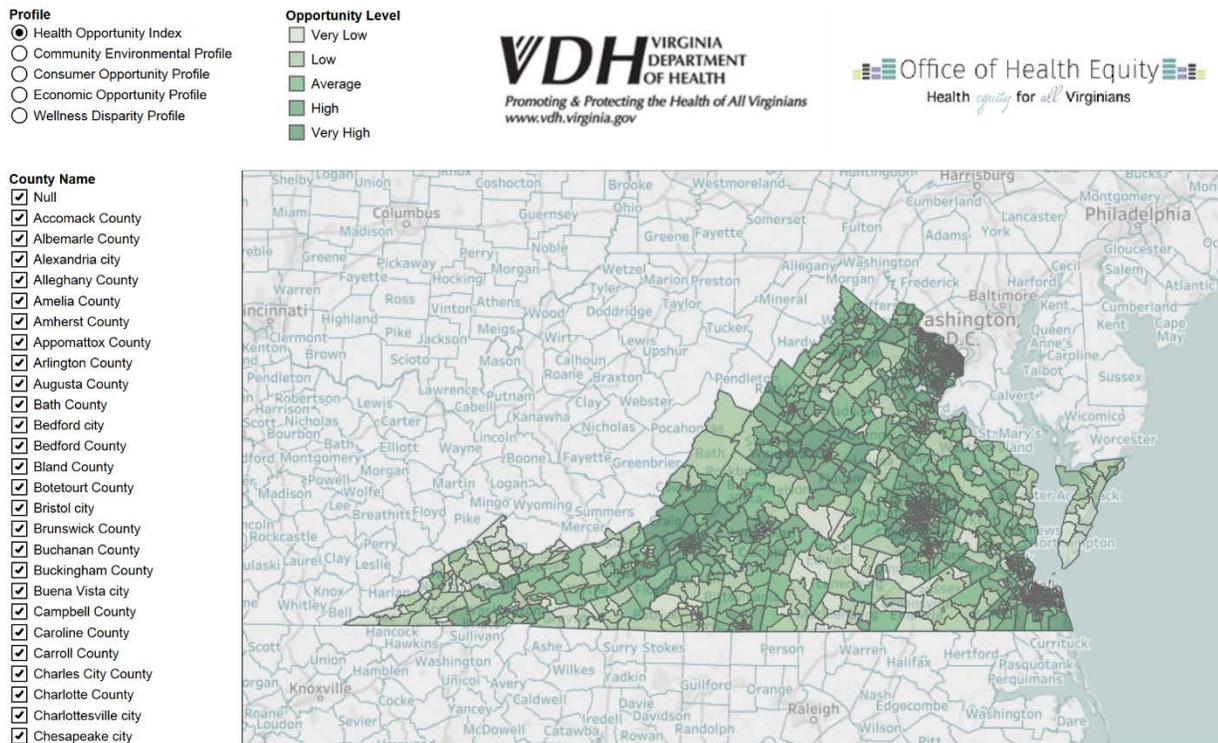
extensive review of the literature on the social determinants of health. Although there are innumerable variables and indicators that could be included, indicators were chosen based on the following criteria:

- Their influence on health as expressed in the literature,
- Input from Local Health Districts and other stakeholders, and
- The availability of data of consistent quality at the census-tract level for all census tracts in Virginia.

Those 13 indicators are organized into four profiles:

- Community Environmental (indicator of natural, built, and social environment),
- Consumer Opportunity (measure of consumer resources available),
- Economic Opportunity (measure of economic opportunities available, highlighting employment and income), and
- Wellness Disparity (measure of disparate access to health services).

The following map depicts the HOI distribution across the state:



As visualized in the above map, counties in Southwest Virginia, Southside Virginia, and other rural areas of the state have a lower HOI than do the urban areas. As noted, one of the components of the HOI is the “Economic Opportunity Profile.” This profile examines the impact place has on each member’s ability to participate in the economic life of a community. Factors influencing economic opportunity include access to jobs, labor participation rates, and the distribution of income within a community. These factors allow working-age

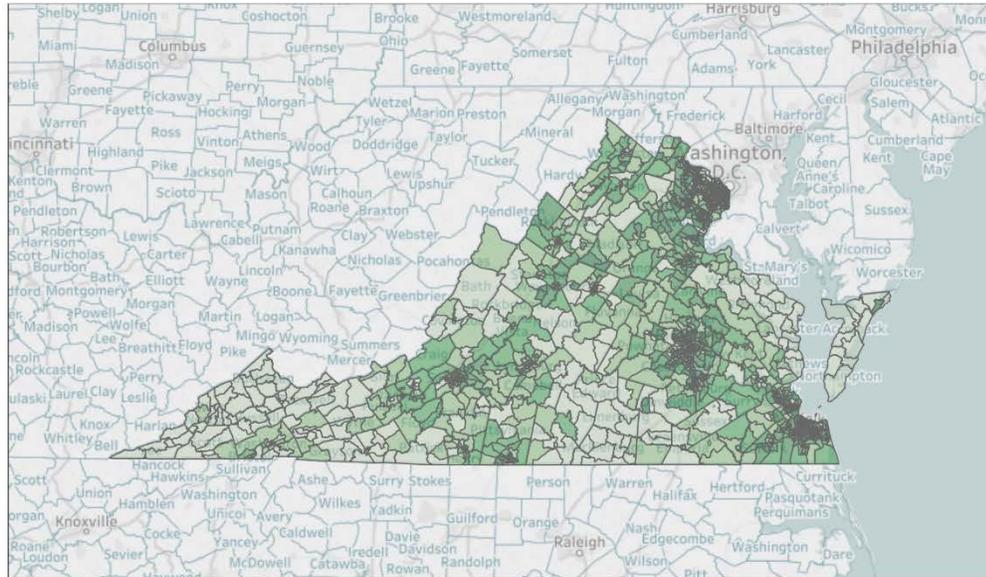
residents to remain in the community, providing support for other residents, and tax receipts for local governments. They also provide the means to overcome many of the barriers to health opportunity included in other profiles. The next map shows the distribution of the Economic Opportunity Profile across the state, which marks an even starker rural/urban divide.

- Profile**
- Health Opportunity Index
 - Community Environmental Profile
 - Consumer Opportunity Profile
 - Economic Opportunity Profile
 - Wellness Disparity Profile

- Opportunity Level**
- Very Low
 - Low
 - Average
 - High
 - Very High



- County Name**
- Null
 - Accomack County
 - Albemarle County
 - Alexandria city
 - Alleghany County
 - Amelia County
 - Amherst County
 - Appomattox County
 - Arlington County
 - Augusta County
 - Bath County
 - Bedford city
 - Bedford County
 - Bland County
 - Botetourt County
 - Bristol city
 - Brunswick County
 - Buchanan County
 - Buckingham County
 - Buena Vista city
 - Campbell County
 - Caroline County
 - Carroll County
 - Charles City County
 - Charlotte County
 - Charlottesville city
 - Chesapeake city



Again, one can see that this index of access to jobs, workforce participation, and income inequality is not evenly distributed. People living in rural areas of the state have far less economic opportunity than those in the urban areas of the Commonwealth. There are two Virginias: the rural, poor Virginia; and the urban, more affluent Virginia.

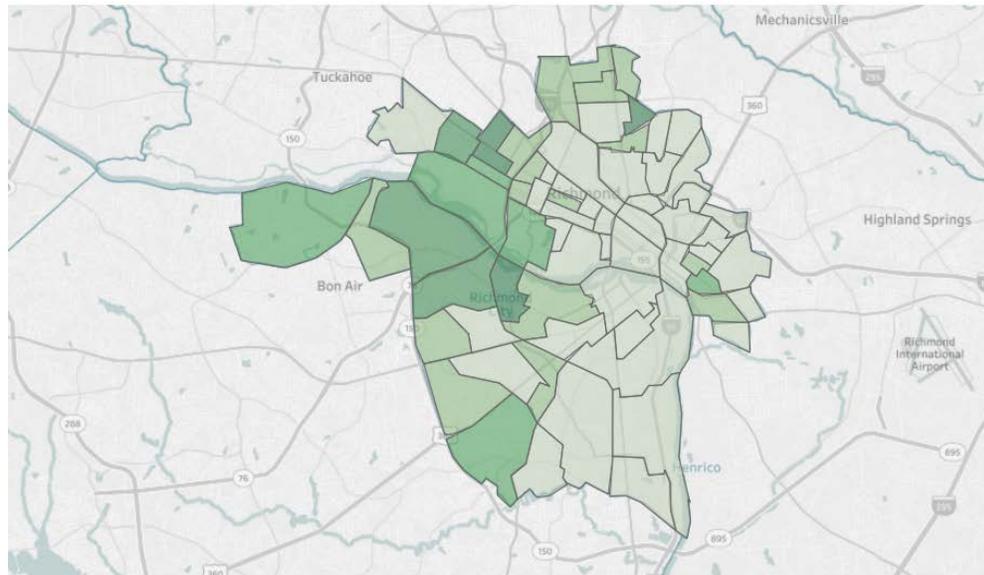
As mentioned earlier, such high-level statistics mask underlying disparities. Even the most affluent counties in the Commonwealth have areas of very low HOI. Fortunately, the HOI can be calculated down to the census-tract level. When we assess an urban area at the census-tract level, such as Richmond in the map below, we see vast inequities in HOI across neighborhoods.

- Profile**
- Health Opportunity Index
 - Community Environmental Profile
 - Consumer Opportunity Profile
 - Economic Opportunity Profile
 - Wellness Disparity Profile

- Opportunity Level**
- Very Low
 - Low
 - Average
 - High
 - Very High



- Local Health District**
- Null
 - Alexandria LHD
 - Alleghany LHD
 - Arlington LHD
 - Central Shenandoah LHD
 - Central Virginia LHD
 - Chesapeake LHD
 - Chesterfield LHD
 - Chickominy LHD
 - Crater LHD
 - Cumberland Plateau LHD
 - Danville LHD
 - Eastern Shore LHD
 - Fairfax LHD
 - Hampton LHD
 - Henrico LHD
 - Loudoun LHD
 - Loudoun LHD
 - Mount Rogers LHD
 - New River LHD
 - Norfolk LHD
 - Peninsula LHD
 - Piedmont LHD
 - Portsmouth LHD
 - Prince William LHD
 - Rappahannock LHD



West Richmond and East Richmond are two different worlds, with the eastern parts of the city marked by low HOI. Higher poverty rates, lower employment rates, less affordable housing, and poorer access to healthy food plague the eastern portion of the city.

Communities with a low HOI also are known to have poor access to healthcare services. Fewer physicians and other healthcare providers are located in these areas, and the residents have less ability to pay for clinical care because of lack of insurance.

Health impact of HOI

Poverty has long been associated with an increased burden of disease. These communities are also food deserts, lacking sources of fresh, wholesome foods. With higher unemployment rates, and those working having less desirable jobs, people in these communities lack employer-based health insurance. A low HOI, therefore, is associated with poor health outcomes for a community. The map below illustrates the number diabetes deaths per 100,000 people across the state. The distribution of diabetes mortality is similar to the distribution of low HOI.

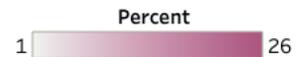
Chronic Disease Prevalence by Locality

This page displays 2014 BRFSS Small Area Estimation (SAE) data by indicator and locality (county/city) for the state of Virginia. Use the Select Indicator, Select Health District and Select Locality controls to filter changes in the map and graph.

Select Indicator
Diabetes

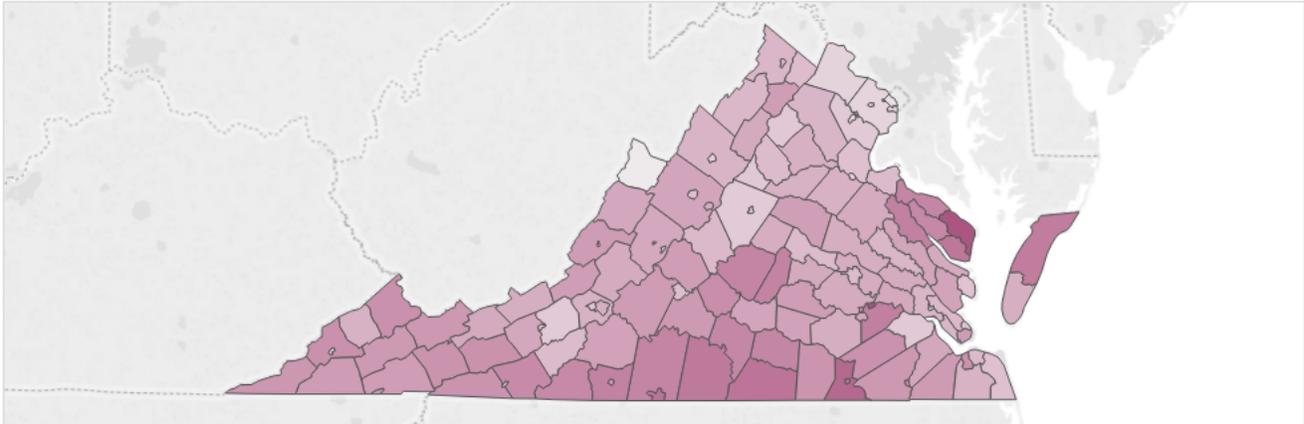
Select Health District
All

Select Locality
All



Map - Diabetes

Question: Percentage of adults 18 years and older who have been told by a doctor, nurse, or other health professional they had diabetes. Does not include gestational diabetes.



We see the same story with deaths from stroke:

Chronic Disease Prevalence by Locality

This page displays 2014 BRFSS Small Area Estimation (SAE) data by indicator and locality (county/city) for the state of Virginia. Use the Select Indicator, Select Health District and Select Locality controls to filter changes in the map and graph.

Select Indicator
Stroke

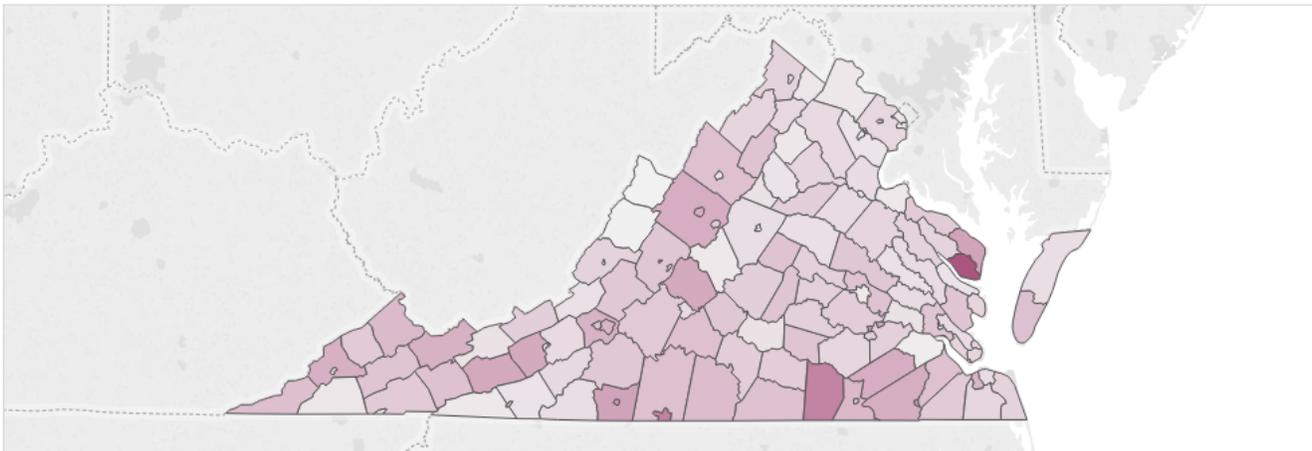
Select Health District
All

Select Locality
All



Map - Stroke

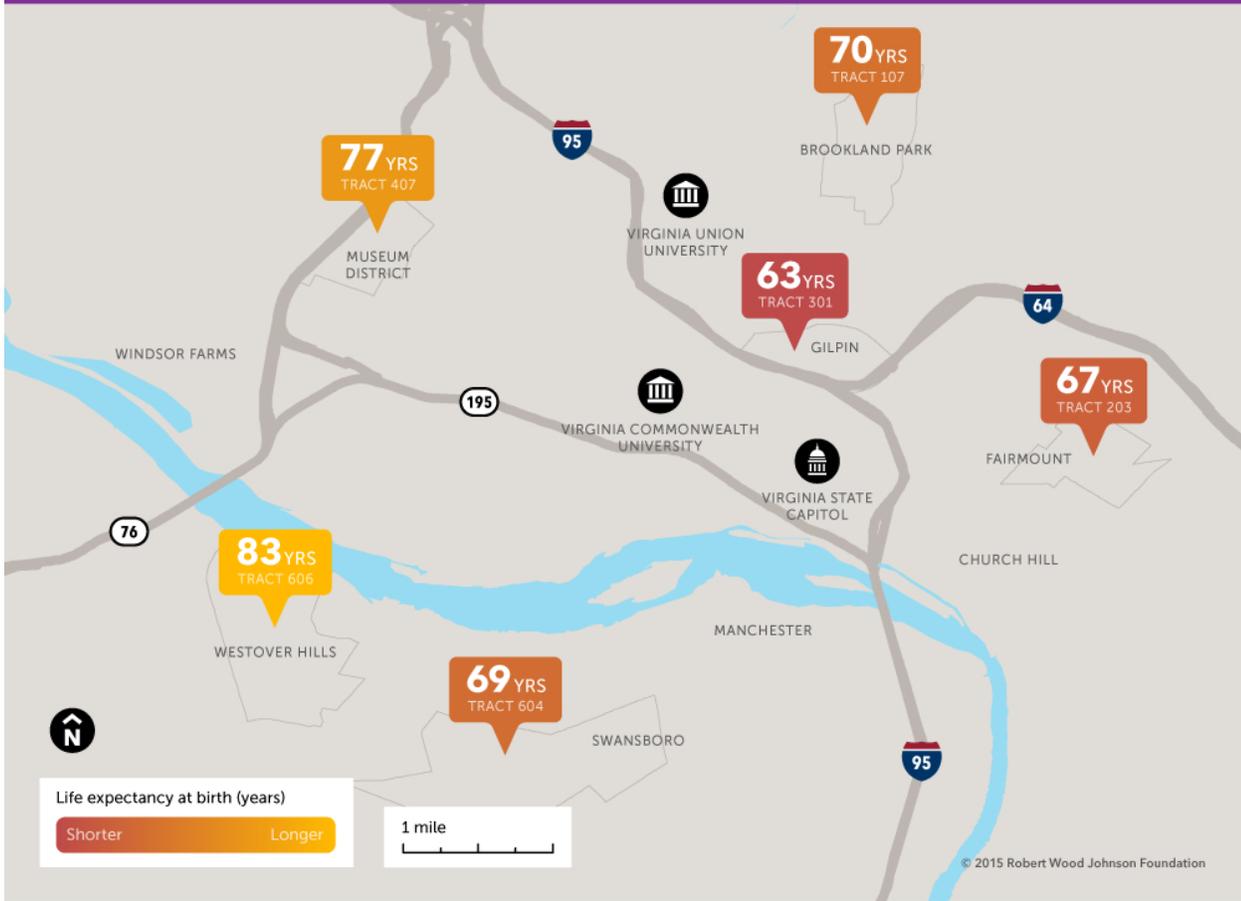
Question: Percentage of adults 18 years and older who have ever had a stroke.



As with the HOI, county-level data obscure disparities at the census-tract level. Using Richmond as an example, a map of life expectancy rates shows marked differences from one neighborhood to another. These inequities in life expectancy map onto the HOI, with people living in communities with a low HOI dying at an earlier age than those living in high-HOI communities only a few miles away.

Short Distances to Large Gaps in Health

Follow the discussion
[#CloseHealthGaps](#)



Life expectancy at birth (years)
 Shorter Longer

1 mile

© 2015 Robert Wood Johnson Foundation



Executive Summary

In order to achieve the goal of making Virginia the healthiest state in the nation, we must address the glaring health inequities that exist across the Commonwealth. A broad, multi-sectoral coalition of state agencies, employers, healthcare providers, community organizations, and philanthropic organizations needs to be built that can construct the infrastructure required to build affordable housing, increase employment, improve education, provide healthy foods, and address other health-related social needs. Increasing access to healthcare services is a pressing, immediate need of our state’s communities with low HOI. Expanding Medicaid is an important step forward in helping these communities improve their health.

Many organizations and institutions around the Commonwealth have taken the Virginia Plan for Well-Being and adopted it as *their* strategy for improving population health. In the years ahead, these forces need to align with

one another and, with their combined resources, make even bigger strides toward improving the health and well-being of all Virginians.

This update focuses on measures categorized as improving – where there is movement in the percent or rate statewide toward the goal. Measures where positive movement have been evidenced in the data include 10 measures. Even though there has been improvement, it does not mean we are content with where Virginia ranks. For example, the infant mortality rate of black infants was 12.2 in 2013 and is 10.7 in 2016. While this improvement has been observed, it is still twice the rate of white infants (4.8 in 2016). The percent of hospitals meeting the state goal for hospital-acquired infections has increased from 64.9% in 2015 to 82.1% in 2017. The goal is still 100% and we are moving closer to meeting it.

IMPROVING MEASURES

- Cost burdened households
- Ongoing collaborative community health planning process
- Teen pregnancies (15-19 years)
- Children who do not meet PALS-K Benchmark/Kindergarten
- Infant mortality of black infants
- Adults participating in any physical activity in the past 30 days
- Food insecure households some part of the year
- Healthcare providers with certified HER
- Entities connected through HIE in VA
- Hospitals meeting state goal for prevention of HAI

Maintaining measures (or areas of focus) means that we are not seeing any movement. These measures have evidenced little to no change, or in some cases, have decreased further away from the intended goal. For example, the percent of high school graduates enrolled in an institution of higher education within 16 months after graduation has maintained at 72% over the past three years, adults who are overweight or obese is stagnant at 65%, and adults receiving their annual influenza vaccine is stalled at 47%. Further investigation into the drivers behind these health behaviors is needed. We know many factors play into these measures and it will require a more holistic, cross-sector approach, as explained earlier, to observe positive change in these areas of focus.

MAINTAINING OR AREAS OF FOCUS

- Adults overweight or obese
- Tobacco use
- HPV girls
- HPV boys
- High school graduation
- Third graders passing SOL for reading
- Adults receiving annual flu vaccine
- Adults (50-75 years) receiving colorectal cancer screening
- Adults with a regular healthcare provider

We are in the early stages of the next state health assessment. VDH staff are collecting and analyzing quantitative data as part of the Title V Needs Assessment that will be leveraged forward and built upon. Once the quantitative data has been drafted into population domain briefs, key populations of interest will be asked to consider the data and offer feedback and input into what they need to live healthy lives in Virginia.

Stakeholders, including the Board of Health, will be asked to also review the data and give consideration to the final development of the assessment recommendations and report. A finished document is anticipated by the end of 2019. The Partnering for a Healthy Virginia Advisory Committee was recently organized and will have a role in the development and implementation of the next iteration of Virginia's Plan for Well-Being.

2020 STATE HEALTH ASSESSMENT

- In process – will leverage data from the MCH-Title V Needs Assessment
 - **Timeline**
 - December 2018 – Population domain briefs (prioritized quantitative data)
 - July 2019 – Complete qualitative data collection with key populations, and policy and systems environmental scan
 - December 2019 – Stakeholder data review and prioritization; final assessment report ready for dissemination
- **Partnering for a Healthy Virginia Advisory Committee** – Multi-sectoral coalition organized by VDH and VHHA

Once the assessment priorities have been established, strategies in response to the recommendations will be developed. Ownership of the identified strategies will fall on all collaborators involved in the process—as this

work requires team effort. Materials and data visualizations will be created to help tell the story of Virginia’s well-being status and where we want to focus our collective efforts and resources for the next five years. We want impact to guide our goals and will aim to practice “upstream” on social determinants of health to reducing health inequity in key populations.



2020-2024 PLAN FOR WELL-BEING

- Stakeholder group review of data to determine health improvement priorities as part of the next iteration of Virginia’s Plan for Well-Being
- Writing and producing data visualizations and reports
- Agreement on measures for monitoring and evaluation
- Goals, objectives, and strategies to be implemented (and by whom)
- Collective impact and alignment among cross-sector partners
- Focus on policy, system and environmental change strategies

Background

The information below serves as an annual report to Virginia’s Plan for Well-Being, the Commonwealth of Virginia’s state health improvement plan for 2016-2020. The plan has four aims:

1. Healthy, Connected Communities
2. Strong Start for Children
3. Preventive Actions
4. System of Health Care

Within this framework, the plan lays out 13 goals and 29 measures of success. This document describes the first year measures and status of indicators for review.

Vision: Well-Being for All Virginians

Well-Being

Measure Percent of adults in Virginia who report positive well-being; Baseline: 68% (2016).

2018 Update *measure calculation in process*

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The four-item Satisfaction with Life Scale (SWLS) asks respondents to indicate how much they agree with the four following statements on a scale from 1 (strongly agree) to 5 (strongly disagree): (1) “In most ways my life is close to ideal,” (2) “The conditions of my life are excellent,” (3) “I am satisfied with my life,” and (4) “So far I have gotten the important things I

want in life.” Responses to the four SWLS questions are dichotomized into those indicating positive well-being (e.g., agree/strongly agree) and those indicating negative well-being (e.g., disagree/strongly disagree). For overall SWLS, adults responding agree or strongly agree to all four questions (score = 4), are considered positive. Data collection for the SWLS scale began in 2016 as part of Virginia’s Behavioral Risk Factor Surveillance System.

The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don’t know/not sure, refused, or missing are removed from the numerator and denominator in all estimates.

AIM 1 — Healthy, Connected Communities

Goal 1.1 Virginia’s Families Maintain Economic Stability

1.1 A High School Graduates Enrolled in Higher Education

Measure Percent of Virginia high school graduates enrolled in an institute of higher education within 16 months after graduation; Baseline: 70.9% (2013).

2018 Update 72.0% (2015)

2020 Goal 75%

Data Source Virginia Postsecondary Enrollment Reports. Virginia Department of Education.

Description The percent of Virginia high school graduates who:

1. Graduated within five years of entering high school,
2. Earned a standard or advanced studies diploma, and
3. Were enrolled in an institute of higher education within 16 months of graduation.

This measure follows a cohort of students who entered ninth grade in the same year.

1.1 B Cost-Burdened Households

Measure Percent of cost-burdened households in Virginia (more than 30% of monthly income spent on housing costs); Baseline: 31.4% (2013).

2018 Update 29.9% (2016)

2020 Goal 29.0%

Data Source American Community Survey. U.S. Census Bureau.

Description This measure is calculated by dividing the number of Virginians that spent more than 30% of their monthly income on rent, mortgage, or housing without a mortgage* by the number of occupied housing units in Virginia. The numerator* is housing cost as a proportion of total income in a given year. The data are from the American Community Survey 1-Year Estimates. This is a point-in-time annual survey.

1.1 C [Consumer Opportunity Index Score](#)

Measure Consumer Opportunity Index score in Virginia; Baseline: 81.8 (2009-2013).

2018 Update 86.1 (2011-2015)

2020 Goal 83.7

Data Source The Virginia Department of Health created the Consumer Opportunity Index utilizing the following data sources: Affordability, Education, Townsend Profile from the U.S. Census American Consumer Survey and 5-Year Food Accessibility Index from the U.S. Department of Agriculture.

Description The Consumer Opportunity Index is an indicator of consumer access to resources that support long and healthy lives, with 100% representing perfect access and 0% representing no access. The metric is a multivariate index comprised of four indicators:

1. Affordability (housing and transportation cost as a percent of income),
2. Education (average years of schooling),
3. Food Accessibility (percent of population that is both low income and has low access to food), and
4. Townsend Material Deprivation Profile (unemployment, home ownership, overcrowded homes and homes without an automobile).

The Consumer Opportunity Index is one of four multivariate profiles that make up the Health Opportunity Index (HOI). The Virginia Department of Health convened stakeholders to identify 13 indicators to include in the HOI. From these indicators, four separate profiles were created using principal component analysis. Data for the indicators are taken from different sources using different methodologies, and are updated on differing schedules. Indicators in each profile are combined using the geometric mean. Each indicator is given equal weight in the profile. The Consumer Opportunity Index indicators are established at the census-tract level. County-level profiles are determined for each indicator using a population-weighted average of each tract in the county. The state score represents the median county score.

1.1 D [Economic Opportunity Index Score](#)

Measure Economic Opportunity Index score in Virginia; Baseline: 70.7 (2009-2013).

2018 Update 75.0 (2011-2015)

2020 Goal 73.7

Data Source The Virginia Department of Health created the Economic Opportunity Index utilizing the following data sources: U.S. Census, American Economic Survey, and 5-Year Estimates.

Description The Economic Opportunity Index is an indicator of access to the economic resources that support long and healthy lives, with 100% representing perfect access and 0% representing no access. The metric is a multivariate profile comprised of three indicators:

1. Employment (jobs per worker weighted by distance to job),
2. Income Inequality (Gini Coefficient), and
3. Job Participation (percent of working age population in the labor force).

The Economic Opportunity Index is one of four multivariate profiles that make up the Health Opportunity Index (HOI). The Virginia Department of Health convened stakeholders to identify 13 indicators to include in the HOI. From these indicators, four separate profiles were created using principal component analysis. Indicators in each profile are combined using the geometric mean. Data for the indicators are taken from different sources using different methodologies,

and are updated on differing schedules. Each indicator is given equal weight in the profile. The Economic Opportunity Index indicators are established at the census-tract level. County-level profiles are determined for each indicator using a population-weighted average of each tract in the county. The state score represents the median county score.

Goal 1.2	Virginia’s Communities Collaborate to Improve the Population’s Health
1.2	Districts with Collaborative Community Health Improvement Processes
Measure	Percent of Virginia health planning districts that have established an on-going collaborative community health improvement process; Baseline: 43.0% (2015).
2018 Update	88.0% (2017)
2020 Goal	100%
Data Source	Virginia Department of Health.
Description	The measure is calculated by dividing the number of health districts in Virginia that report that a collaborative community health improvement process is established in their health planning district divided by 35 (total number of health planning districts).

AIM 2 — Strong Start for Children

Goal 2.1	Virginians Plan Their Pregnancies
2.1	Teen Pregnancy Rate
Measure	Teen pregnancy rate per 1,000 females, ages 15 to 19 years, in Virginia; Baseline: 27.9 (2013).
2018 Update	20.9 (2016)
2020 Goal	25.1
Data Source	Virginia Vital Records and Health Statistics Electronic Birth Certificates, Fetal Death Certificates, Induced Termination of Pregnancy Certificates. Virginia Department of Health.
Description	This metric is created using live birth data from the electronic birth certificate as reported by birth facilities, Induced Termination of Pregnancy (ITOP) data as reported by ITOP facilities, fetal death data as reported by medical providers and the number of female teens (15-19 years of age) from the National Center for Health Statistics population estimates.

Goal 2.2	Virginia’s Children Are Prepared to Succeed in Kindergarten
2.2 A	Kindergartens Not Meeting Phonological Awareness Literacy (PALS-K) Benchmark
Measure	Percent of children in Virginia who do not meet the PALS-K benchmarks in the fall of kindergarten and require literacy intervention; Baseline: 12.7% (2014-2015).
2018 Update	15.9% (2017-2018)
2020 Goal	12.2%
Data Source	Phonological Awareness Literacy Screening – Kindergarten Results. Virginia Department of Education.

Description The Phonological Awareness Literacy Screening – Kindergarten (PALS-K) is conducted in the fall of each school year and identifies kindergarten students who are at risk for reading difficulties. The tool measures children’s knowledge of several literacy fundamentals: phonological awareness, alphabet recognition, concept of word, knowledge of letter sounds, and spelling. The PALS-K is an assessment of literacy readiness and is not a comprehensive measure of school readiness. PALS-K is the state-provided screening tool for Virginia’s Early Intervention Reading Initiative (EIRI) and is used by 99% of school divisions in the state on a voluntary basis.

2.2 B [Third Graders Passing Reading Standards of Learning \(SOL\) Assessment](#)

Measure Percent of third graders in Virginia who pass the Standards of Learning third grade reading assessment; Baseline: 69.0% (2014-2015).

2018 Update 74.6% (2016-2017)

2020 Goal 80.0%

Data Source Virginia Standards of Learning Results. Virginia Department of Education.

Description The Standards of Learning (SOL) for Virginia Public Schools establish minimum expectations for what students should know and be able to do at the end of each grade. All items on SOL tests are reviewed by Virginia classroom teachers for accuracy and fairness, and teachers also assist the state Board of Education in setting proficiency standards for the tests.

Goal 2.3 [The Racial Disparity in Virginia’s Infant Mortality Rate is Eliminated](#)

2.3 [Infant Mortality Rate by Race](#)

Measure Black infant mortality rate in Virginia per 1,000 live births by race; Baseline: 12.2 (2013).

2018 Update 10.7 (2016)

2020 Goal 5.2

Data Source Virginia Vital Records and Health Statistics Electronic Birth Certificates and Electronic Death Certificates. Virginia Department of Health.

Description Virginia’s infant mortality rate is calculated by dividing the number of deaths of children under one year of age by the number of live births to mothers living in the state. The resulting number is multiplied by 1,000 to compute the rate.

AIM 3 — Preventive Actions

Goal 3.1 [Virginians Follow a Healthy Diet and Live Actively](#)

3.1 A [Adults Not Participating in Physical Activity](#)

Measure Percent of Virginia adults 18 years and older who do not participate in any physical activity during the past 30 days; Baseline: 23.5% (2014).

2018 Update 23.3% (2016)

2020 Goal 20.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults 18 years and older who reported that they did not participate in any physical activity other than their regular job during the past 30 days. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

3.1 B **Adults Who Are Overweight or Obese**

Measure Percent of Virginia adults 18 years and older who are overweight or obese; Baseline: 64.7% (2014).

2018 Update 65.5% (2016)

2020 Goal 63.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults 18 years and older who reported a body mass index (BMI) greater than 25. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey asks respondents what their height and weight are. BMI is then calculated based on reported height and weight. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

3.1 C **Households That Are Food Insecure**

Measure Percent of Virginia households that are food insecure for some part of the year. Baseline: 11.9% (2013).

2018 Update 10.6% (2016)

2020 Goal 10.0%

Data Source *Map the Meal Gap* utilized the Current Population Survey, and American Community Survey from the U.S. Census Bureau.

Description Feeding America's *Map the Meal Gap* analyzes the relationship between food insecurity and indicators of food insecurity, and child food insecurity (poverty, unemployment, median income, etc.) at the state level.

Goal 3.2 **Virginia Prevents Nicotine Dependency**

3.2 **Adults Using Tobacco**

Measure Percent of Virginia adults aged 18 years and older who report using tobacco. Baseline: 21.9% (2014).

2018 Update 17.9% (2016)

2020 Goal 12.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults 18 years and older who report that they have smoked at least 100 cigarettes in their lifetime and currently smoke tobacco on at least some days, use chewing tobacco, use snuff and/or use snus. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

Goal 3.3 **Virginians Are Protected Against Vaccine-Preventable Diseases**

3.3 A **Adults Vaccinated Against Influenza**

Measure Percent of Virginia adults 18 years and older who received an annual influenza vaccine. Baseline: 48.2% (2014-2015).

2018 Update 47.9% (2016-2017)

2020 Goal 70%

Data Source Behavioral Risk Factor Surveillance System, and the National Immunization Survey. Centers for Disease Control and Prevention.

Description The percent of Virginians 18 years of age and older who received an annual influenza vaccine. The Centers for Disease Control and Prevention analyzed the National Immunization Survey-Flu and the Behavioral Risk Factor Surveillance System to estimate national and state level flu vaccination coverage. Influenza vaccination status is based on self-report and not validated with medical records.

3.3 B **Adolescents Vaccinated Against HPV**

Measure Percent of girls aged 13-17 in Virginia who receives three doses of HPV vaccine and percent of boys aged 13-17 in Virginia who receive three doses of HPV vaccine. Girls Baseline: 35.9% (2014), Boys Baseline: 22.5% (2014).

2018 Update* Girls: 32.7% (2016), Boys: 33.3% (2016)

2020 Goal Girls and Boys: 80.0%

Data Source National Immunization Survey-Teen. Centers for Disease Control and Prevention.

Description The percent of Virginia adolescents aged 13-17 (girls and boys reported separately) who received three doses of human papillomavirus (HPV) vaccine (*two doses are recommended as of 2016). The National Immunization Survey-Teen (NIS-Teen) is an ongoing, annual survey of children, whose parents/guardians are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. Doses of vaccines administered are verified by providers through a mailed survey to the girls' immunization providers.

Goal 3.4 **Cancers Are Prevented or Diagnosed at the Earliest Stage Possible**

3.4 **Adults Screened for Colorectal Cancer**

Measure Percent of Virginia adults aged 50 to 75 years who receive colorectal cancer screening. Baseline: 69.1% (2014).

2018 Update 70.3% (2016)

2020 Goal 85.0%

Data Source Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.

Description The percent of Virginia adults, ages 50 to 75 years, who report receiving a colorectal cancer screening test based on the most recent guidelines (fecal occult blood test, proctoscopy, colonoscopy, or sigmoidoscopy). The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

Goal 3.5 **Virginians Have Life-Long Wellness**

3.5 A **Disability-Free Life Expectancy**

Measure Average years of disability-free life expectancy for Virginians; Baseline: 66.1 (2013), 66.0 (2014).

2018 Update *measure calculation in process*

2020 Goal 67.3

Data Source U.S. Census Intercensal Population File Vintage 2014, Virginia Vital Records and Health Statistics Electronic Death Certificates, and the American Community Survey. Virginia Department of Health.

Description Disability-free life expectancy (DFLE) was calculated for Virginia census tracts by adding the estimates of the proportion of individuals with disabilities by tract and age group to the abridged life table estimates of mortality and population used for creating life expectancy (LE) estimates. The life table with the proportion of disabled individuals was the input for the analysis using the Chiang II methodology with Silcock's adjustment for calculation of LE and Sullivan's methods for DFLE. The disabled population proportion was defined for this study as answering yes to any one of the six disability questions (2009-2013 aggregate) in the American Community Survey. Significant consideration was given to disability chosen, small area analysis problems, and how to share the analysis for best impact. At the tract level, data censorship was considered when unusual population distributions were encountered. Minimum population size requirements were met to reduce large standard errors. DFLE estimates were added to a multiple linear regression model with social determinants of health as the explanatory variables.

3.5 B **Adults with Adverse Childhood Experiences**

Measure Percent of adults in Virginia who report adverse childhood experiences; Baseline: 48% (2016).

2018 Update *measure calculation in process*

Data Source	Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.
Description	Adverse childhood experiences (ACEs) include verbal, physical, or sexual abuse, as well as family dysfunction (e.g., an incarcerated, mentally ill, or substance-abusing family member; domestic violence; or absence of a parent because of divorce or separation). The ACE score is a measure of cumulative exposure to particular adverse childhood conditions. Exposure to any single ACE condition is counted as one point. If an adult experienced none of the conditions in childhood, the ACE score is zero. Points are totaled for a final ACE score. The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

AIM 4 — System of Health Care

Goal 4.1	Virginia Has a Strong Primary Care System Linked to Behavioral Health Care, Oral Health Care, and Community Support Systems
4.1 A	Adults with a Regular Health Care Provider
Measure	Percent of adults 18 years and older who have a regular health care provider; Baseline: 69.3% (2014).
2018 Update	71.7% (2016)
2020 Goal	85.0%
Data Source	Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.
Description	The percent of Virginia adults who report that they have at least one personal healthcare provider for ongoing care. The Behavioral Risk Factor Surveillance System is an ongoing, annual survey of adults who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.
4.1 B	Avoidable Hospital Stays
Measure	Rate of avoidable hospital stays for ambulatory care sensitive conditions in Virginia per 100,000 persons; Baseline: 1,294 (2013).
2018 Update	<i>measure calculation in process</i>
2020 Goal	1,100
Data Source	Virginia Inpatient Hospitalization. Virginia Health Information.
Description	The measure is the Agency for Healthcare Research and Quality's Prevention Quality Overall Composite (PQI #90) in Virginia. It includes hospitalizations that could have been prevented through high quality outpatient care, including uncontrolled diabetes, short-term diabetes complications, long-term diabetes complications (including amputated limbs), chronic

obstructive pulmonary disease, high blood pressure, heart failure, chest pain, adult asthma, dehydration, pneumonia, and urinary tract infections. The number of hospital stays is provided for every 100,000 people who reside in that area.

4.1 C [Avoidable Cardiovascular Disease Deaths](#)

Measure	Rate of avoidable deaths from heart disease, stroke, or hypertensive disease in Virginia per 100,000 persons; Baseline: 49.9 (2013), 49.1 (2014).
2018 Update	<i>measure calculation in process</i>
2020 Goal	40.0
Data Source	Virginia Vital Records and Health Statistics Electronic Death Certificates. Virginia Department of Health.
Description	Deaths included were those caused by cardiovascular disease, including chronic rheumatic heart disease (ICD 10 codes I05-I09), hypertension (ICD codes I10, I12, I15), ischemic heart disease (ICD 10 codes I20-I25), and cerebrovascular disease (ICD 10 codes I60-I69). An age-adjusted formula for population was used, truncating the years over 75, and then reformatting to the new million population for those age ranges.

4.1 D [Adult Mental Health and Substance Abuse Hospitalizations](#)

Measure	Rate of adult mental health and substance abuse hospitalizations in Virginia per 100,000 adults; Baseline: 668.50 (2013), 687.0 (2014).
2018 Update	<i>measure calculation in process</i>
2020 Goal	635.1
Data Source	Virginia Inpatient Hospitalization. Virginia Health Information.
Description	Diagnosis codes to include for mental health and substance abuse hospitalizations were selected based on criteria developed by the Healthcare Cost and Utilization Project. The case definition used excluded discharges related to maternity stays and individuals under the age of 18. Population denominators were derived from midyear Census estimates provided by the National Center for Health Statistics.

4.1 E [Adults Whose Poor Health Kept Them from Usual Activities](#)

Measure	Percent of adults 18 years and older in Virginia who reported having one or more days of poor health that kept them from doing their usual activities; Baseline: 19.5% (2014).
2018 Update	20.9% (2016)
2020 Goal	18.0%
Data Source	Virginia Behavioral Risk Factor Surveillance System. Virginia Department of Health.
Description	Percent of Virginia adults who reported having one or more days of poor health (physical health or mental health) and reported that poor health kept them from doing usual activities. The Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing, annual survey of adults, who are randomly called via landline or cell phone. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and conducted in all 50 states. The Virginia Department of Health conducts the survey in Virginia. The information is self-reported and not observed or

measured. Responses of don't know/not sure, refused, or missing were removed from the numerator and denominator in all estimates.

Goal 4.2 **Virginia's Health IT System Connects People, Services and Information to Support Optimal Health Outcomes**

4.2 A **Providers with Electronic Health Records**

Measure Percent of health care providers in Virginia who have implemented a certified electronic health record; Baseline: 70.6% (2014).

2018 Update 82.0% (2017)

2020 Goal 90.0%

Data Source National Electronic Health Records Survey. Centers for Disease Control and Prevention.

Description Data are from the National Electronic Health Records Survey (NEHRS). NEHRS, which is conducted by the National Center for Health Statistics and sponsored by the Office of the National Coordinator for Health Information Technology, is a nationally representative mixed mode survey of office-based physicians that collects information on physician and practice characteristics, including the adoption and use of EHR systems. Using a physician database, email addresses of sampled physicians were identified. Sampled physicians that did not have an email match were asked to complete the survey by mail or phone. Among those with email addresses, respondents were randomly assigned to one of four groups: an invitation to take the web survey through email, US mail, both, or no web survey option. Nonresponse to the web survey resulted in 3 mailings of the questionnaire followed by phone contacts.

4.2 B **Entities Connected to Health Information Exchange**

Measure Number of entities in Virginia connected through Connect Virginia HIE Inc., the electronic health information exchange, and the national e-Health Exchange; Baseline: 3,800 (2015).

2018 Update 6,289 (2017)

2020 Goal 7,600

Data Source Connect Virginia HIE, Inc.

Description Connect Virginia HIE, Inc. is the statewide health information exchange (HIE) for the Commonwealth of Virginia. The HIE uses secure, electronic, internet-based technology to allow medical information to be exchanged by participating entities. Connect Virginia reports the number of entities in Virginia connected on a quarterly basis.

4.2 C **Health Districts with Electronic Health Records**

Measure Number of Virginia's local public health districts that have electronic health records and connect to Connect Virginia, Virginia's Health Information Exchange; Baseline: 0 (2015).

2018 Update 0 (2017)

2020 Update 35

Data Source Virginia Department of Health.

Description Count of Virginia’s local public health districts (total of 35) that have electronic health records and connect to Connect Virginia, Virginia’s Health Information Exchange.

Goal 4.3 **Health Care-Associated Infections Are Prevented and Controlled in Virginia**

4.3 **Hospitals Meeting State Goal for Prevention of *C. difficile* Infections**

Measure Percent of hospitals in Virginia meeting the state goal for prevention of hospital-onset *Clostridium difficile* infections; Baseline: 64.9% (2015).

2018 Update 82.1% (2017)

2020 Goal 100.0%

Data Source National Healthcare Safety Network. Centers for Disease Control and Prevention.

Description The percent of Virginia hospitals that meet the state goal for prevention of hospital-onset *C. difficile* laboratory-identified events. The state goal is a standardized infection ratio ≤ 0.7 , which aligns with the goal of the Department of Health and Human Services National Healthcare-Associated Infections Action Plan.



COMMONWEALTH of VIRGINIA

Department of Health

P O BOX 2448
RICHMOND, VA 23218

M. NORMAN OLIVER, MD, MA
STATE HEALTH COMMISSIONER

TTY 7-1-1 OR
1-800-828-1120

MEMORANDUM

DATE: August 7, 2018

TO: Virginia State Board of Health

FROM: Gary R. Brown, Director Office of Emergency Medical Services

SUBJECT: Commonwealth of Virginia Trauma System Plan

Section 32.1-111.3 of the Code of Virginia tasks the Board of Health with the development of a comprehensive, coordinated, statewide emergency medical services plan. A required objective of the plan (#4) is *“promoting continuing improvement in system components including ground, water, and air transportation; communications; hospital emergency departments and other emergency medical care facilities; health care provider training and health care service delivery; and consumer health information and education.”*

In September 2015, the Commonwealth of Virginia voluntarily underwent a consultation visit by the Trauma System Consultation program of the American College of Surgeons (ACS). The purpose of the consultation was to gain an objective evaluation and assessment of the current trauma system in Virginia. Over 100 trauma system stakeholders representing all components of trauma care participated in the three-day consultative visit (see page 80 for a list of participants). The resulting Consultation Report is a comprehensive review of Virginia’s status from a public health perspective and includes recommendations for all facets of the system (the full report and a video of the exit interview can be viewed at www.vdh.virginia.gov/emergency-medical-services/trauma-system).

The Executive Committee of the State Emergency Medical Services Advisory Board charged the Trauma System Oversight and Management Committee with addressing the ACS recommendations and developing a vision for trauma care in Virginia by producing a well-defined, specific and comprehensive Trauma System Plan. The Virginia Trauma System Task Force formed and began creating the plan. Using the Health Resources and Services Administration Model Trauma Systems Planning and Evaluation document as a template, 130 trauma system stakeholders (see page 78 for list of contributors) met 109 times over the course of two years to develop the attached plan. The document was unanimously approved by the

Trauma System Task Force on June 7, 2018; by the Trauma System Oversight and Management Committee on June 7, 2018; and by the State Emergency Medical Services Advisory Board August 3, 2018.

This strategic framework is a first step in the trauma system development process and provides trauma system stakeholders-healthcare providers, government regulators and the public- with a guidance document to close the identified gaps in Virginia's current system. Working with the Emergency Medical Services Advisory Board, the Trauma System committees will further define an implementation plan and the goals, objectives, and benchmarks will evolve over time to address the ever-changing healthcare delivery system in the Commonwealth.

The Virginia Department of Health's Office of EMS (OEMS) appreciates the opportunity to present this document to the Board, and values any input that the Board provides, as well as the input of any other stakeholder, or interested party. OEMS respectfully requests the State Board of Health approve the Trauma System Plan. Any questions related to this document can be forwarded to Cam Crittenden, RN, Division Manager, Trauma and Critical Care at 804.888.9100, or Camela.Crittenden@vdh.virginia.gov.

Commonwealth of Virginia Trauma System Plan 2018

Approved by the EMS Advisory Board

For Board of Health Approval

Table of Contents

Introduction

Introduction.....3
Purpose of the Virginia Trauma System Plan.....3
Justification for the Development of a Comprehensive Trauma System Plan.....3
Proposed Trauma System Committee Structure.....5
Trauma System Plan Task Force Mission, Vision, Values and Code of Conduct.....7

Committees – Composition, Goals and Objectives

Administrative Components

Trauma Administrative and Governance 10
System Improvement 12

Operational Components

Injury and Violence Prevention 15
Prehospital Care 16
Acute Care 18
Post-Acute Care 19
Emergency Preparedness and Response 20

Benchmarks, Indicators and Scoring (by Committee assignment)

Trauma Administrative and Governance 22
System Improvement 43
Injury and Violence Prevention 53
Prehospital Care 59
Acute Care 63
Post-Acute Care 70
Emergency Preparedness and Response 71

Appendices

Appendix A – EMS Advisory Board members, 2016-2018.....76
Appendix B – Trauma System Management and Oversight Committee members, 2016-2018.....77
Appendix C – Trauma System Plan Contributors.....78
Appendix D – Meetings of the Trauma System Plan Task Force and workgroups.....79
Appendix E – American College of Surgeons Trauma System Consultation participant list.....80
Appendix F – Plan Versions and Approvals.....84

Introduction

Injury is the leading cause of death for persons between the ages of 1 and 44, and one of the leading causes for all age groups.

When a person is severely injured there are three factors that improve chances of survival and decrease chances of permanent disability. These three factors are getting that person 1) to the right hospital, 2) in the right manner, and 3) in the right amount of time. An organized trauma system focuses on enhancing these three factors, as well as all of the other elements surrounding and influencing them. These other elements include and, as this plan demonstrates, are not limited to, rehabilitation to return the patient to their pre-injury health status, prevention of injury, and planning and preparing for disaster. Multiple research studies have shown that an injured person's chances of dying or suffering a severe or permanent disability are significantly reduced if their injuries are sustained in an area with an organized trauma system.

Purpose of the Virginia Trauma System Plan

The purpose of this document is to provide Virginia Trauma System stakeholders – including healthcare providers, government regulators and the public – with a road map of the steps needed to close identified gaps in the system. This will help ensure people injured in the Commonwealth are taken to the right hospital, in the right manner, and in the right amount of time.

Justification for the Development of a Comprehensive Trauma System Plan

Background

- In September 2015 the Commonwealth of Virginia voluntarily underwent a consultation visit by the Trauma Systems Consultation program of the American College of Surgeons (ACS). The purpose of the consultation was to gain an objective evaluation and assessment of the current trauma system in Virginia. The basis for the consultation is the Model Trauma Systems Planning and Evaluation document (MTSPE), created by the federal Health Resources and Services Administration (HRSA). The resulting Consultation Report is a comprehensive review of Virginia's current status from a public health perspective and includes recommendations for all facets of the system;
- The Executive Committee of the Emergency Medical Services Advisory Board charged the Trauma System Oversight and Management Committee (TSOMC) with addressing the ACS recommendations;
- Central to the request for the ACS consultation visit and the findings and recommendations of the ACS Consultation Report is the development of a Vision for Trauma Care in Virginia with a well-defined, specific and comprehensive Trauma System Development Plan, including a revised and effective reporting structure and legislative power to affect change;
- In the early stages of trauma center designation and trauma system development (1980s), partnering with Emergency Medical Services (EMS) was an appropriate and common practice around the country;
- Currently in Virginia, a statewide EMS System Plan exists that is both operational and strategic. It undergoes regular, triennial updates and involves a wide range of stakeholders;
- The provision of prehospital care has broadened significantly, requiring EMS to focus and adopt protocols and practices specific to prehospital management of heart attacks, strokes, and disasters;
- Currently, the trauma care plan in Virginia exists as an extension of the EMS system and is, by definition, significantly limited in perspective, structure and service to the injured.

Perspective and Service

- The trauma care plan in the Commonwealth of Virginia, as an extension of the EMS system, is limited to a prehospital perspective focusing mainly on the establishment of field triage criteria and prehospital trauma designation of trauma centers;
- In Virginia, as trauma centers have matured, their role in injury prevention, education, definitive care, organ donation and transplant, rehabilitation, and community activities has reached beyond the prehospital focus;
- A trauma system plan based on the public health model as recommended by the ACS visit and documented in the HRSA model does not currently exist in Virginia;
- Currently all essential components of the trauma system function independently and without integration;
- At the pre-injury level, there is no integration of the injury control efforts of the various components of the trauma system, leaving strategies ineffective at connecting the public health system with clinical health systems;
- At the prehospital level, a mature system exists but remains disconnected from a comprehensive trauma system plan, placing the burden on prehospital providers to navigate between various health system agendas with competitive market strategies;
- At the hospital level, there are no specific destination criteria and no defined expectations for trauma team activation;
- At the rehabilitation level, there is a lack of regional and state representation, as well as a lack of integration with the trauma system at all levels;
- There is no comprehensive trauma performance improvement (PI) plan with enforcement strategies at the local, regional or state level;
- There is no integrated data system for the preinjury, prehospital, hospital, rehabilitation, and post discharge phases of care – rendering appropriate policy measures difficult.

Current structure

- Currently, trauma system oversight falls under the EMS Advisory Board with no separate process established for trauma system issues;
- The state trauma program advisory group is the Trauma System Oversight and Management Committee (TSOMC), a committee of the EMS Advisory Board;
- TSOMC does not have operational authority to conduct either oversight or management of the trauma system, operating instead as an advisory body to the EMS Advisory Board;
- The EMS Advisory Board is mainly and appropriately focused on prehospital activities, and by necessity there is preponderance of prehospital representatives, including 11 regional EMS representatives;
- Trauma system leaders have no current process to make needed, appropriate, effective and efficient changes;
- OEMS provides support and guidance to the care of the injured, but remains significantly unbalanced in favor of EMS activities.

Need and Goals

- There is a need for the development of a comprehensive trauma system based on the HRSA MTSPE with built-in structural and legislative empowerment to deliver the optimal care for the injured in Virginia;
- There is a need for a trauma system oversight and management structure that is adequately represented at and can provide advice to the Virginia Board of Health;

For Board of Health approval

- There is a need for the designation of a lead governmental agency, with sufficient funding, human resources, and the authority to develop policies, including those for system development, implementation, coordination, evaluation, and identification of additional funding sources;
- There is a recognized need for the revision of the Office of Emergency Medical Services' organizational structure to elevate the state trauma program to provide greater support to trauma system development through the realignment;
- There is a need for adequate representation of all components of the trauma system at the EMS Advisory Board, including pre-injury, acute care, and post-acute care;
- There is a need to realign existing resources within the Virginia Department of Health structure to support the development of a comprehensive trauma system;
- There is a need for a Virginia Trauma System with structure and processes that allows for effective policy development to promote the use of scientific knowledge in decision making to include:
 - Building constituencies
 - Identifying needs and setting priorities
 - Using legislative authority and funding to develop plans and policies to address needs
 - Ensuring the public's health and safety;
- There may be a need for the modification of the Code of Virginia to achieve the above goals.

Proposed Trauma System Committee Structure

- The Trauma System Committee should be integrated into the existing EMS Advisory Board structure. To achieve the mission and vision of the proposed system, the following leadership and governance structure will be needed:
 - Executive Committee of the EMS Advisory Board
 - Create a Trauma System Coordinator
 - On par with Administrative, Infrastructure, Professional Development and Patient Care Coordinators
 - Serves on the Executive Committee
 - Represents the Committees of the Trauma System
 - Add Trauma System representation to the other Committees of the EMS Advisory Board under the Administration, Infrastructure, and Professional Development Coordinators
 - The Trauma System will function under Committees representing the Pre-injury, Prehospital, Acute Care, and Post-Acute phases of care:
 - Trauma Administrative and Governance (comprised of the Trauma System Coordinator, Committee chairs and other stakeholders of the Trauma System)
 - System Improvement
 - Injury and Violence Prevention
 - Prehospital Care
 - Acute Care
 - Post-Acute
 - Emergency Preparedness and Response
- Committee Structure:
 - The EMS Advisory Board's Trauma System Coordinator (TSC) will serve as chair of the Trauma Administrative and Governance Committee (TAG);

For Board of Health approval

- Chairs of the Trauma System Committees will be appointed by the TSC;
 - The TSC will ensure that all committees have fair and equal representation from Trauma System stakeholders;
 - The chair of the System Improvement Committee (SIC) shall serve a 3-year term with a limit of two consecutive terms;
 - The chairs of the trauma system committees (except TAG and SIC) will serve either 2-year or 3-year terms with a limit of two consecutive terms:
 - The following committee chairs will serve 3-year terms:
 - Acute Care
 - Post-Acute
 - The following committee chairs will serve 2-year terms:
 - Injury & Violence Prevention
 - Prehospital
 - Emergency Preparedness and Response
 - The members of each committee will serve alternating 2-year and 3-year terms with a limit of two consecutive terms with no more than 50% committee members (i.e., 7 members) rotating at the end of a term. The chair of each committee will submit the name and position of the rotating members and the proposed incoming members to the TSC for consideration and approval.
- The Office of EMS, Division of Trauma and Critical Care, will need the following personnel:
 - Trauma OMD – minimum of 0.25 FTE (new)
 - Trauma Manager – 0.75 FTE (existing)
 - Trauma Coordinator – 1 FTE (existing)
 - Trauma Data Manager – 1 FTE (new)
 - Data Analysts – 2 FTEs (existing)
 - Administrative Assistant – 0.5 FTE (existing)
 - State EMS Advisory Board
 - Modification of the EMS Advisory Board to provide adequate representation of all components of the Trauma System to include the following:
 - Pre-Injury
 - The representative for the Pre-Injury component of the Trauma System should be familiar with injury-oriented community health assessments, epidemiology, and prevention of injury and violence (injury epidemiologist preferred);
 - Prehospital (existing)
 - Acute Care
 - The representative for the Acute Care component of the Trauma System should be familiar with the care of trauma victims in hospitals, both trauma centers and non-designated hospitals, from arrival at the ED until discharge;
 - Post-Acute Care
 - The representative of the Post-Acute Care component of the Trauma System should be familiar with returning trauma victims to the highest possible levels of quality of

For Board of Health approval

life and independence following injury (preferred representatives from physical, occupational and speech therapy, rehabilitation facilities or skilled nursing facilities);

- Hospital Quality
 - The representative of the Hospital Quality component of the Trauma System should be familiar with hospital quality assurance and control processes and measures for decreasing mortality and morbidity caused by injuries;
- Burn Care
 - The representative of the Burn component of the Trauma System should be familiar with all aspects of burn care, including burn service management;
- Trauma Nursing Care
 - The representative of trauma nursing care should be a registered nurse familiar with hospital trauma program structure and requirements for state trauma center designation including personnel CME, quality improvement, trauma registry maintenance, trauma center budget management, and community outreach (Trauma Program Manager preferred);
- ACS Committee on Trauma (Existing) – will serve as the Trauma System Coordinator.

– Name change to State EMS and Trauma Advisory Board

Trauma System Plan Task Force Mission, Vision, Values and Code of Conduct

Mission Statement

- To reduce the burden of preventable injury and to deliver the highest quality, evidence-based care for all within the Commonwealth along the continuum of care from the prehospital setting, through definitive acute care and rehabilitation with data analysis, quality improvement and ongoing funding.

Vision Statement

- The Commonwealth of Virginia trauma system will be a high quality, cost effective, accessible statewide system of injury prevention and trauma care for all.

Values

- Effective: Successful in producing the intended results in terms of injury prevention and optimal care to the injured in Virginia.
- Efficiency: The ability to perform a defined task or deliver a specific outcome with a minimum amount of waste, expense or unnecessary effort.
- Timely: Patients should experience no waits or delays in receiving care and service. Critical access facilities should experience no delay in consults or transferring injured patients.
- Safety: Avoiding harm to patients in the process of providing care for the medical condition needing treatment.
- Equitable: All citizens of and visitors to the Commonwealth should have equal access to high quality care.
- Patient Centered/Focused: Care that is respectful of and responsive to individual patient preference, needs and values and ensures that patient values guide all clinical decisions.

Code of Conduct

- Accountability: The obligation of one party to provide justification and be held responsible for their actions/results by another interested party.
- Commitment: Being bound emotionally or intellectually to a course of action.

For Board of Health approval

- Compassion: Sympathetic consciousness of the suffering of the injured patients and concern for their loved ones, together with a desire to alleviate the suffering and its source.
- Collaboration: Health providers from different professions providing comprehensive services by working with people, their families, care providers, and communities to deliver the highest quality of care across settings.
- Honesty: Will not condone or engage in any behavior which would provide false or misleading statements to patients, their families and healthcare organizations related to the care of the patient.
- Transparency: Readily understood, honest and open; not secretive.
- Respectful Communication: Opinions, feelings and attitudes will be expressed honestly and in a way that respects the rights of others.

For Board of Health approval

Administrative Components

**Trauma Administrative and Governance
System Improvement**

Trauma Administrative and Governance Committee

Committee Proposed Composition

16 Members maximum (15 voting members and Chair)

- Trauma System Coordinator (Chair)
- Chairs of the Trauma System Committees
 - System Improvement
 - Injury and Violence Prevention
 - Prehospital Care
 - Acute Care
 - Post-Acute Care
 - Emergency Preparedness and Response
- Trauma Program Manager Representative
- Citizen Representative
- Legislative
- Financial
- Virginia Hospital and Healthcare Association
- Burn
- Pediatrics
- American College of Emergency Physicians
- Level 3 Trauma Center

Goals and Objectives

Goal 1: Grow and elevate the trauma system to support the mission, vision, and values.

Objective ID	Objective
TAG 1.1	Evaluate the current structure.
TAG 1.2	Determination of meeting the needs of vision, mission, and values of trauma system plan.
TAG 1.3	Modify structure if necessary to support the vision, mission and values of the trauma system plan.
TAG 1.4	Review and recommend realignment of new and existing resources within the Virginia Department of Health structure to support the development and sustainability of a comprehensive trauma system

Goal 2: Create trauma system development to meet the vision, mission and values of the trauma system plan.

Objective ID	Objective
TAG 2.1	Provide strategic plan to meet the outlined mission and goals
TAG 2.2	Develop prioritization and timeline of benchmarks and indicators
TAG 2.3	Provide guidance to TS committees in meeting specified goals
TAG 2.4	Assure TS committees alignment with overall vision & mission of the TSP
TAG 2.5	Provide continuous monitoring of processes, outcomes, and deliverables with regular reports to Trauma system stakeholders

Goal 3: Develop a financial framework to meet our vision, mission and value statements.

Objective ID	Objective
TAG 3.1	Evaluate the current funding for the trauma system.
TAG 3.2	Develop strategies to create permanent and adequate funding for the trauma system.

For Board of Health approval

Goal 4: Identify key stakeholders to support the trauma system vision, mission and values.

Objective ID	Objective
TAG 4.1	Identify key officials with the authority to implement and enforce changes.
TAG 4.2	Determine key components of the state legislative and regulatory processes.

For Board of Health approval
System Improvement Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- Representatives of the Trauma System Committees (5)
 - Injury and Violence Prevention
 - Prehospital Care
 - Acute Care (Level 1,2,3)
 - Post-Acute Care
 - Emergency Preparedness and Response
- Burn center representative
- Pediatric center representative
- Non-designated trauma center
- Citizen representative
- Epidemiologist (VDH Office of Family Health Service – Division of Population Health Data)
- Registrar Representative
- PI Coordinator representative
- Education representative
- Research representative

Goals and Objectives

Goal 1: To promote and support integrated data systems regarding the continuum of care and disposition of the patient in order to support trauma system education, performance improvement, public health planning, injury prevention and outcomes research

Objective ID	Objective
SIC 1.1	Conduct system-wide assessment and inventory of current data systems
SIC 1.2	Contract with expert in data system analysis to analyze current data systems
SIC 1.3	Develop a strategic plan and outline plan for implementation
SIC 1.4	Implement linkage of data

Goal 2: To promote, educate and empower institutions and providers to reduce the burden of preventable deaths and suffering as a result of injury through optimized care, implementation of best practice, development of clinical practice guidelines and engagement of our populace in their trauma system through training, advocacy and understanding.

Objective ID	Objective
SIC 2.1	Create plan for providing risk adjustment mortality reports by institution
SIC 2.2	Conduct an educational gap analysis of institutions, populace and providers regarding the role of the trauma system in the community.
SIC 2.3	Conduct a gap analysis of guidelines and protocols of care of the trauma patient

(continued)

For Board of Health approval

Goal 3: To build a trauma system that works toward continuous improvement at all levels through periodic external and internal benchmarking, consultation, adoption of best practices and collaboration with local, state, regional and national resources.

Objective ID	Objective
SIC 3.1	Develop a plan for regional benchmarking
SIC 3.2	Develop state level continuous improvement for hospitals
SIC 3.3	Engage medical direction committee council in development of regional benchmarking

Goal 4: To conduct research to attain new insights and innovative solutions to injury-related health problems.

Objective ID	Objective
SIC 4.1	Gather insight from hospital collaboratives to develop regional injury prevention research activities
SIC 3.2	Create structure for determining research goals
SIC 3.3	Develop a strategic plan for research funding

Goal 5. To advise the Virginia Department of Health, Office of Emergency Medical Services on matters relating to maintaining a performance improvement process that supports the trauma center designation process, trauma triage plan, and improves trauma care throughout Virginia (§ 32.1-111.3:B.3).

Objective ID	Objective
SIC 5.1	To develop a performance improvement program for monitoring the quality of care, consistent with other components of the Trauma system plan
SIC 5.2	To develop a performance improvement program for monitoring the quality of care, consistent with other components of the Emergency Medical Services Plan

Operational and Clinical Components

Injury & Violence Prevention

Prehospital Care

Acute Care

Post-Acute Care

Emergency Preparedness and Response

Injury and Violence Prevention Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- VDH Injury & Violence Prevention representative
- Safe Kids representative
- VDH Aging and Rehabilitation Services representative
- Hospital injury prevention coordinators representative
- Epidemiologist
- State Police representative
- Judicial system representative
- Office of the Attorney General representative
- State Public School System representative
- Community/Advocacy group representative
- Citizen representative
- Prehospital Committee representatives - 2 (EMS, Fire)
- Office of Chief Medical Examiner

Goals and Objectives

Goal 1: Use integrated data surveillance process to strengthen analyses, establish injury and violence prevention priorities and further statewide injury prevention efforts by trauma systems.

Objective ID	Objective
IVP 1.1	Use established databases to identify leading injury-related causes of morbidity and mortality.
IVP 1.2	Track and trend injury-related morbidity and mortality benchmarked against national data.
IVP 1.3	Identify high risk populations using existing data sources and public health tools.
IVP 1.4	Evaluate state trauma system through data analysis from existing data sources and public health tools.
IVP 1.5	Review data from key sources to identify gaps and review accomplishments to avoid duplication.
IVP 1.6	Develop a dashboard for continuous monitoring of injury-related morbidity and mortality status.

Goal 2: Integrate injury and violence prevention support by increasing opportunities for collaborative injury and violence prevention in all priority areas.

Objective ID	Objective
IVP 2.1	Build a sustainable infrastructure to provide leadership, data, and technical assistance for advancing injury and violence prevention in trauma systems
IVP 2.2	Develop and maintain active participation and partnerships with the lead injury prevention agency, Virginia Injury and Violence Prevention Collaborative

Goal 3: Implement a statewide injury and violence prevention initiative.

Objective ID	Objective
IVP 3.1	Assess the state trauma system’s capacity to prevent injuries.
IVP 3.2	Establish a collaborative effort to provide statewide direction and focus on injury prevention among adults, children, and geriatrics

Prehospital Care Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- Ground EMS provider (2)
- Helicopter EMS provider
- Ground critical care transport representative
- Medical Direction Committee representative
- Trauma Program Manager (1 adult, 1 pediatric)
- Fire Chief
- 911 communication officer
- Law enforcement representative
- EMS Educator
- Regional EMS Council Director
- Trauma survivor / Citizen representative
- Non-trauma center designated hospital

Goals and Objectives

Goal 1: Develop and implement a minimum set of statewide trauma treatment protocols for adult, pediatric, and geriatric patients.

Objective ID	Objective
PCC 1.1	Develop statewide minimum required treatment standards for treating injured patients that each EMS agency shall have within their protocols / polices.

Goal 2: Establish minimum statewide destination guideline standards for each step of the state trauma triage criteria for both adult and pediatric populations

Objective ID	Objective
PCC 2.1	Determine if disparities in the application of field triage exist based upon geography or patient type (pediatrics, geriatrics, etc.)
PCC 2.2	Allow regions to adapt the destination guidelines to match trauma system resources but ensure adherence to the statewide minimum standards

Goal 3: Develop resources for ground critical care transport

Objective ID	Objective
PCC 3.1	Define what critical care transport is within the Commonwealth of Virginia
PCC 3.2	Establish state standards for what is required on critical care transport ambulances in terms equipment / staff
PCC 3.3	Change Virginia code to read "Each jurisdiction is tasked to ensure that ground transport for the critically ill and injured patient is available."

(continued)

For Board of Health approval

Goal 4: Support programs for the recruitment and retention of EMS Providers

Objective ID	Objective
PCC 4.1	Reinforce the existing state and regional committees in place that are currently focusing on EMS recruitment and retention
PCC 4.2	Enhance the educational opportunities within the hospitals for EMS personnel.
PCC 4.3	Competitive salaries for EMS providers across the Commonwealth

Goal 5: Strengthen the language in Virginia Code (12VAC5-31-860 (48)) to update the safe transportation of children in the back of ambulances

Objective ID	Objective
PCC 5.1	Use the NHTSA Best Practice Recommendations for Safe Transportation of Children in Emergency Ground Ambulances (Sept 2012)
PCC 5.2	Allocate funds to assist EMS services in purchasing necessary devices that are age / size specific restraint systems for each ambulance
PCC 5.3	EMS agencies should utilize grant funding opportunities when needing to purchase equipment for the safe transport of children in the back of ambulances.
PCC 5.4	Update the Virginia Code 12VAC-31-860 (48) with the following: 1) Insert: "9g. Pediatric immobilization device (1)." and "9h. Pediatric restraint device (1)." 2) Edit Virginia Code: 12VAC5-31-710 to state, "All occupants in an ambulance need to be appropriately restrained."

Acute Care Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- Trauma Center representatives (recommend TPM and TMD)
 - Level 1 Trauma Center (2)
 - Level 2 Trauma Center (2)
 - Level 3 Trauma Center (2)
- Pediatric Trauma Center representative
- Burn Center representative
- Non-designated facility representative
- Trauma Center Administrator
- Prehospital Care Committee representative
- Post-Acute Committee representative

Goals and Objectives

Goal 1: Continue to evaluate the process for designation of trauma centers

Objective ID	Objective
ACC 1.1	Review and update current standards
ACC 1.2	Evaluate for concurrent visit between state and ACS

Goal 2: Evaluate the process for designation of additional trauma centers

Objective ID	Objective
ACC 2.1	Review current standards
ACC 2.2	Evaluate/modify the criteria and guidelines for trauma center designation
ACC 2.3	Increase data sharing and statistical data analysis, to identify the areas of need

Goal 3: Engage all acute care facilities in the trauma system

Objective ID	Objective
ACC 3.1	Review how to provide technical assistance and guidelines for treatment and transfer protocols
ACC 3.2	Bring to TAG a proposal to discuss the “Inter-hospital Triage Criteria” and form a work group to approve and put into action
ACC 3.3	Review the process to promote participation in statewide trauma system performance improvement
ACC 3.4	Engage with non-designated acute care facility for involvement in state wide trauma system

For Board of Health approval
Post-Acute Care Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- Rehabilitation physician
- Acute Care Committee representative
- Administrative director of a rehabilitation facility
- Case manager / Social Worker from a trauma center
- Case manager / Social Worker from an acute rehabilitation center
- Brain Injury Council representative
- Department of Aging and Rehabilitative Services representative
- VA Physical Therapy Association (VPTA) representative
- VA Occupational Therapy Association (VOTA) representative
- Speech-Language-Hearing Association of Virginia (SHAV) representative
- Pediatric representative
- Skilled nursing facility representative

Goals and Objectives

Goal 1: Complete a resource assessment for the trauma system as it relates to post-acute care /rehabilitation

Objective ID	Objective
PAC 1.1	Complete a comprehensive system status inventory that identifies the availability and distribution of current capabilities and resources.

Goal 2: Integrate adequate rehabilitation facilities into the trauma system and ensure these resources are made available to all populations requiring them

Objective ID	Objective
PAC 2.1	Incorporate within the trauma system plan and the trauma center standards requirements for post-acute services, including interfacility transfer of trauma patients to rehabilitation centers.
PAC 2.2	Rehabilitation centers and outpatient rehabilitation services provide data on trauma patients to the central trauma system registry that include final disposition, functional outcome, and rehabilitation costs and also participate in performance improvement processes.

Emergency Preparedness and Response Committee

Committee Proposed Composition

15 Members maximum (14 voting members and Chair)

- Chair (appointed by Trauma System Coordinator)
- Regional Healthcare Coordinators (or designees) from each Emergency Preparedness Coalition (6)
- VDH Office of Emergency Preparedness representative
- VHHA Director of Emergency Preparedness
- Prehospital Committee representative
- Acute Care Committee representative
- Post-Acute Care Committee representative
- EMS for Children representative
- Burn representative
- Hospital Emergency Manager from a designated Trauma Center

Goals and Objectives

Goal 1: Ensure trauma system is engaged in the State disaster planning process.

Objective ID	Objective
EPR 1.1.	Create awareness of existing coalition preparedness and response capability
EPR 1.2	Ensure appropriate stake holders within the coalitions are adequately represented
EPR 1.3	Ensure a comprehensive trauma system is inclusive of the State Disaster preparedness/management plan.

Goal 2: Collaborate with the OEP and ensure the provision of disaster preparedness education to trauma centers, regional councils, and local emergency medical services (EMS) providers.

Objective ID	Objective
EPR 2.1	Contribute to the state emergency preparedness plan
EPR 2.2	Collaborate with the OEP to evaluate and modify a disaster preparedness guide for the EMS and trauma system

Goal 3: Collaborate with the OEP to assess and maximize the use of Assistant Secretary of Preparedness and Response (ASPR) funding to enhance the medical surge capabilities of the state’s trauma centers.

Objective ID	Objective
EPR 3.1	Contribute to the assessment for each region annually via collaboration with VDH/VHHA.

For Board of Health approval

Benchmarks, Indicators and Scoring
By Committee Assignment

Trauma Administrative and Governance Committee
Benchmarks, Indicators and Scoring

Benchmark 103: A resource assessment for the trauma system has been completed and is regularly updated.

Indicator	Scoring	Status
103.1: The trauma system has completed a comprehensive system status inventory that identifies the availability and distribution of current capabilities and resources.	<ol style="list-style-type: none"> 1. There is no statewide resource assessment. 2. A State resource assessment has been completed that documents the frequency and distribution of resources for at least two of the following categories: prehospital and hospital personnel, education programs, facilities, and prehospital equipment. 3. A State resource assessment has been completed that documents the frequency and distribution of resources for more than two of the following categories: leadership, system development, legislation, finances, injury prevention, workforce resources, education, EMS, transport, communications, trauma care facilities, interfacility transfer, medical rehabilitation, information systems, medical oversight, system evaluation, performance improvement, and research. 4. A trauma jurisdiction-specific resource assessment has been completed for at least half of the trauma jurisdictions. 5. Trauma jurisdiction-specific resource assessments have been completed for the State, regional, and local areas and are updated at least biennially. 	2017-18 Assessment Score: ③

Benchmark 103: A resource assessment for the trauma system has been completed and is regularly updated.

Indicator	Scoring	Status
103.2: The trauma system has completed a gap analysis based on the inventories of internal and external system status as well as system resource standards	<ol style="list-style-type: none"> 1. There are no resource standards on which to base a gap analysis. 2. The State trauma advisory committee has begun to develop statewide trauma system resource standards so that a gap analysis can be completed. 3. State trauma system resource standards have been approved by the appropriate approving authority. 4. A gap analysis of statewide trauma system resources has been completed for the entire State based on the system resource standards adopted. 5. A gap analysis of statewide trauma system resources has been completed for the entire State and is updated at regular intervals based on the trauma resource standards in place. 	2017-18 Assessment Score: ②

For Board of Health approval

Benchmark 103: A resource assessment for the trauma system has been completed and is regularly updated.

Indicator	Scoring	Status
103.4 The trauma system has undergone a jurisdiction-wide external independent analysis.	<ol style="list-style-type: none"> 1. No external examination of the trauma system or individual components has occurred. 2. Individual trauma centers have undergone outside consultation and verification. 3. In addition to trauma center verification, at least one other component of the system has been analyzed by external reviewers, for example, prehospital, rehabilitation, burns, and others. 4. An outside group of trauma system “experts” has conducted a formal trauma system external assessment and has made specific recommendations to the system. 5. Independent, external reassessment occurs regularly, at least every 5 years. 	2017-18 Assessment Score: ④

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.2 Cases that document the societal benefit are reported on so that the community sees and hears the benefit of the trauma system to society.	<ol style="list-style-type: none"> 1. No effort is made to gather, catalogue, or report cases that document the societal benefit of the trauma system so that the community sees and hears the benefit of the trauma system to society. Such cases, for example, document descriptive information on dramatic “saves” within the trauma system. 2. Dramatic saves and functional outcome returns are documented at each facility or within various components of the system. 3. Cases concerning dramatic saves and return to a quality life are on file (at a system level), but not reported unless asked for by the press. 4. Dramatic saves and functional outcome returns are provided to, and reported by, the press. 5. Cases are used as part of information fact sheets that are distributed to the press and other segments of the community. These information fact sheets document the cost-benefit of the trauma system to the community. 	2017-18 Assessment Score: ②

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.3: An assessment of the needs of the media concerning trauma system information has been conducted.	<ol style="list-style-type: none"> 1. There is no routine or planned contact with the media. 2. Plans are in place to feed information to the media in response to a particular traumatic event. 3. The media have been formally asked about what types of information would be helpful in reporting on trauma cases and issues. 4. Information resources for the media have been developed, based on the stated needs of the media; media representatives are included in trauma system informational events. 5. In addition to routine media contact, the media are involved in various oversight activities such as local, regional, and State trauma advisory councils. 	2017-18 Assessment Score: ②

For Board of Health approval

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.4 An assessment of the needs of public officials concerning trauma system information has been conducted.	<ol style="list-style-type: none"> 1. There is no routine or planned contact with public officials. 2. Plans are in place to provide information to public officials in response to a particular traumatic event. 3. Public officials and policy makers have been formally asked what types of information would be helpful in planning, monitoring, and reporting on trauma system issues. 4. Information resources for public officials have been developed, based on the stated needs of the public officials; public officials are included in trauma system informational events. 5. In addition to routine contact, public officials are involved in various oversight activities such as local, regional, and State trauma advisory councils. 	2017-18 Assessment Score: ①

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.5: An assessment of the needs of the general public concerning trauma system information has been conducted.	<ol style="list-style-type: none"> 1. There is no routine or planned contact with the general public. 2. Plans are in place to provide information to the general public in response to a particular traumatic event. 3. The general public has been formally asked about what types of information would be helpful in understanding and supporting trauma system issues. 4. Information resources for the general public have been developed, based on the stated needs of the general public; general public representatives are included in trauma system informational events. 5. In addition to routine contact, the general public is involved in various oversight activities such as local, regional, and State trauma advisory councils. 	2017-18 Assessment Score: ①

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.6 An assessment of the needs of health insurers concerning trauma system information has been conducted.	<ol style="list-style-type: none"> 1. There is no routine or planned contact with health insurers. 2. Plans are in place to provide information to health insurers during a response to a particular payment, reimbursement, and cost issue. 3. Health insurers have been formally asked about what types of information would be helpful in reporting on trauma cases and issues. 4. Information resources for health insurers have been developed, based on the stated needs of the insurers; insurance representatives are included in trauma system informational events. 5. In addition to routine contact, health insurers are involved in various oversight activities such as local, regional, and State trauma advisory councils. 	2017-18 Assessment Score: ①

For Board of Health approval

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.7: An assessment of the needs of the general medical community, including physicians, nurses, prehospital care providers, and others, concerning trauma system information, has been conducted.	<ol style="list-style-type: none"> 1. There is no routine or planned contact with the broad medical community. 2. Plans are in place to provide information to the broad medical community in response to a particular trauma system event or issue. 3. The broad medical community has been formally asked about what types of information would be helpful in reporting on trauma cases and issues. 4. Information resources for the general medical community have been developed, based on the stated needs of the general medical community; general medical community representatives are included in trauma system informational events. 5. In addition to routine contact, the broad medical community is involved in various oversight activities such as local, regional, and State trauma advisory councils. 	2017-18 Assessment Score: ①

Benchmark 201: Comprehensive State statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.

Indicator	Scoring	Status
201.1: The legislative authority (statute and regulations) plans, develops, implements, manages, and evaluates the trauma system and its component parts, including the identification of the lead	<ol style="list-style-type: none"> 1. There is no specific legislative authority to plan, develop, implement, manage, and evaluate, or fund, the trauma system and its component parts. 2. There is legislative authority for establishing a trauma system, and specific timelines for adoption are being drafted and reviewed by trauma and injury constituencies. 3. The lead agency is identified in State statute and is required to plan and develop a statewide trauma system. 4. The lead agency is authorized to take actions to implement the trauma system and to report on the progress and effectiveness of system implementation. 5. The lead agency is required to plan, develop, implement, manage, monitor, and improve the trauma system while reporting regularly on the status of the trauma system within the State. 	2017-18 Assessment Score: ③

For Board of Health approval

Benchmark 201: Comprehensive State statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.

Indicator	Scoring	Status
<p>201.2: The legislative authority states that all the trauma system components, EMS, injury control, incident management, and planning documents, work together for the effective implementation of the trauma system (infrastructure is in place).</p>	<ol style="list-style-type: none"> 1. There is no legislative authority or integrated management, and system participants do not routinely work together. 2. There is no legislative authority; planning documents reflect a silo management structure in that participating agencies are not linked. For key issues, stakeholders sometimes come together to resolve problems. 3. There is no legislative authority, but people are working together to improve system effectiveness and management within their individual jurisdictions. 4. There is legislative authority, although it is not clearly evident that system components are integrated and working together. 5. There is legislative authority; it clearly provides for the integration of trauma system components for an effective management and infrastructure to plan and implement the trauma system, as evidenced by agency involvement and interaction. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 201: Comprehensive State statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.

Indicator	Scoring	Status
<p>201.3 Administrative rules/regulations direct the development of operational policies and procedures at the State, regional, and local levels.</p>	<ol style="list-style-type: none"> 1. There is no legal authority to adopt administrative rules/ regulations regarding the development of a trauma system at the State, regional, or local level. 2. There is legal authority, but there are no administrative rules/regulations governing trauma system development, including components of the trauma system such as designation of trauma facilities, adoption of triage guidelines, integration of prehospital providers and rehabilitation centers, communication protocols, and integration with public health and all hazards preparedness plans. 3. There are draft State, regional, or local rules/regulations for the different components of trauma system development including integration with public health and all-hazards preparedness plans. 4. There are existing statewide administrative rules/regulations for planning, developing, and implementing the trauma system and its components at the State, regional, and local levels. 5. The lead agency regularly reviews, through established committees and stakeholders, the rules/regulations governing system performance, including policies and procedures for system operations at the State, regional, and local levels that include integration with public health and all-hazards preparedness plans. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 201: Comprehensive State statutory authority and administrative rules support trauma system leaders and maintain trauma system infrastructure, planning, oversight, and future development.

Indicator	Scoring	Status
201.4 The lead agency has adopted clearly defined trauma system standards (e.g., facility standards, triage and transfer guidelines, and data collection standards) and has sufficient legal authority to ensure and enforce compliance.	<ol style="list-style-type: none"> 1. The lead agency does not have sufficient legal authority and has not adopted or defined trauma system performance and operating standards, nor is there sufficient legal authority to do so. 2. Sufficient authority exists to define and adopt standards for trauma system performance and operations, but the lead agency has not yet completed this process. 3. There is sufficient legal authority to adopt and implement operation and performance standards including enforcement. Draft process procedures have been developed. 4. The authority exists to fully develop all operational guidelines and standards; the stakeholders are reviewing draft policies and procedures; and adoption by the lead agency, including implementation and enforcement, is pending. 5. The authority exists; operational policies and procedures and trauma system performance standards are in place; and compliance is being actively monitored. 	2017-18 Assessment Score: ②

Benchmark 202: Trauma system leaders (lead agency, trauma center personnel, and other stakeholders) use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.

Indicator	Scoring	Status
202.1 The lead agency demonstrates that it can bring organizations together to implement and maintain a comprehensive trauma system.	<ol style="list-style-type: none"> 1. There is no evidence of partnerships, alliances, or organizations working together to implement and maintain a comprehensive trauma system. 2. There have been limited attempts to organize groups, but to date no ongoing system committees meeting regularly to design or implement the trauma system. 3. The lead agency has multiple committees meeting regularly to develop and implement a comprehensive trauma system plan. 4. The lead agency demonstrates, through its various committees, an ability to bring together multidisciplinary groups interested in developing, implementing, and maintaining a comprehensive trauma system plan. Multiple stakeholders for various disciplines are routinely recruited to participate in system operational issues and refinement depending on expertise needed (e.g., data vs. public information and education). 5. The lead agency has brought together multiple stakeholder groups to assist with, and make recommendations on, the development and implementation of the trauma system, preferably through a trauma-specific statewide multidisciplinary, multi-agency advisory committee. 	2017-18 Assessment Score: ③

For Board of Health approval

Benchmark 202: Trauma system leaders (lead agency, trauma center personnel, and other stakeholders) use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.

Indicator	Scoring	Status
<p>202.2 The lead agency has developed and implemented a trauma-specific statewide multidisciplinary, multi-agency advisory committee to provide overall guidance to trauma system planning and implementation strategies. The committee meets regularly and is instrumental in providing guidance to the lead agency.</p>	<ol style="list-style-type: none"> 1. There is no trauma-specific statewide multidisciplinary, multi-agency advisory committee providing guidance to the State lead agency in planning and developing a statewide trauma system. 2. There is no trauma-specific statewide multidisciplinary, multi-agency advisory committee, and attempts to organize one have not been successful but are continuing. 3. There is a trauma-specific statewide multidisciplinary, multi-agency advisory committee, but its meetings are infrequent and guidance is not always sought or available. Collaborative working arrangements have not been realized. 4. There is a trauma-specific statewide multidisciplinary, multi-agency advisory committee. Committee members and stakeholders regularly attend meetings. Collaboration and consensus are beginning. 5. There is a trauma-specific multidisciplinary, multiagency advisory committee with well-defined goals and responsibilities. It meets regularly with the lead agency providing staff support. The committee routinely provides guidance and assistance to the lead agency on system issues. Multiple subcommittees meet as often as necessary to resolve specific system issues and to report back to the trauma-specific statewide multidisciplinary, multi-agency advisory committee. There is strong evidence of consensus building among system participants. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 202: Trauma system leaders (lead agency, trauma center personnel, and other stakeholders) use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.

Indicator	Scoring	Status
<p>202.3 A clearly defined and easily understood structure is in place for the trauma system decision making process.</p>	<ol style="list-style-type: none"> 1. There is no defined decision-making process (written policy and procedure) regarding the trauma program within the trauma system lead agency or its committees. 2. There is an unwritten decision-making process that stakeholders use when convenient, although not regularly or consistently. 3. The decision-making process is articulated within the State Trauma System Plan, although it has not been fully implemented. Policies are not written. 4. The decision-making process is contained within the trauma system plan, and there are current policies and procedures in place to guide decision making. Use of the decision-making process is infrequent. 5. There is a clearly defined process for making decisions affecting the trauma program. The process is articulated in the trauma system plan and is further identified within system policies. Stakeholders know and understand the process and use it to resolve issues and to improve the program. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 202: Trauma system leaders (lead agency, trauma center personnel, and other stakeholders) use a process to establish, maintain, and constantly evaluate and improve a comprehensive trauma system in cooperation with medical, professional, governmental, and citizen organizations.

Indicator	Scoring	Status
<p>202.4 Trauma system leaders have adopted and use goals and time-specific, quantifiable, and measurable objectives for the trauma system.</p>	<ol style="list-style-type: none"> 1. There are no goals or time-specific, quantifiable, and measurable objectives for the trauma system. 2. Trauma system leaders have met to discuss time-specific quantifiable goals. 3. Trauma system leaders are beginning the process of identifying measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives. 4. Trauma system leaders have adopted goals and time-specific, quantifiable, and measurable objectives that guide system performance. 5. Trauma system leaders, in consultation with their trauma-specific statewide multidisciplinary, multi-agency advisory committee, have established measurable program goals and outcome-based, time-specific, quantifiable, and measurable objectives that guide system effectiveness and system performance. 	<p>2017-18 Assessment Score: ③</p>

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.1 The lead agency, in concert with a trauma-specific multi-disciplinary, multi-agency advisory committee, has adopted a trauma system plan.</p>	<ol style="list-style-type: none"> 1. There is not trauma system plan, and one is not in progress. 2. There is no trauma system plan, although some groups have begun meeting to discuss the development of a trauma system plan. 3. A trauma system plan was developed and adopted by the lead agency. The plan, however, has not been endorsed by trauma stakeholders. 4. A trauma system plan has been adopted, developed with multi-agency groups, and endorse by those agencies. 5. A comprehensive trauma system plan has been developed, adopted in conjunction with trauma stakeholders, and includes the integration of other systems (e.g. EMS, public health, and emergency preparedness). 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.2 A trauma system plan exists and is based on analysis of the trauma demographics and resource assessments.</p>	<ol style="list-style-type: none"> 1. There is no effort under way to develop a trauma system plan. 2. The lead agency is developing a trauma system plan without reference to the trauma demographics and resource assessments and analyses. 3. The lead agency is actively developing a trauma system plan based on trauma demographics and resource assessments and analyses. 4. A trauma system plan has been developed identifying system priorities and timelines and integrating trauma demographics and resource assessments and analyses preparedness plans. 5. The trauma system plan is updated at least biennially based on changes in trauma demographics and resource assessments and analyses. It is reviewed for integration of other relevant plans such as EMS, emergency preparedness, and public health. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.3 There is within the trauma system plan congruence of the population demographics with system development and resource allocation priorities.</p> <p>Note: Needs of specific populations (e.g., pediatric, burn, and Native American) are integrated into the plan. Considerations should be given to age, population characteristics, and urban and rural environments.</p>	<ol style="list-style-type: none"> 1. There is no evidence that population demographics drive resource allocation or that this information is used to establish system priorities in developing or implementing the trauma system plan. 2. Population demographics and system resources have been identified. It is not clear that this information is used for system allocation, priority setting, or system planning. 3. There is evidence that planning processes take into consideration the needs of special populations and other cultural or geographic parameters. 4. There is evidence within the trauma system plan that consideration of the needs of differing groups, cultural, geographic, and others, has been included. Specific application of information regarding the needs of special groups is occurring at the provider level. 5. The plan addresses the needs of all residents and visitors including special population groups applicable to the geographic area. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.4 The trauma system plan clearly describes the system design (including the components necessary to have an integrated and inclusive trauma system) and is used to guide system implementation and management. For example, the plan includes references to regulatory standard and documents, and includes methods of data collection and analysis.</p>	<ol style="list-style-type: none"> 1. There is no trauma system plan. 2. The trauma system plan does not address or incorporate the trauma system components (prehospital, communication, transportation, acute care, rehabilitation, and others), nor is it inclusive of all-hazards preparedness, EMS, or public health integration. 3. The trauma system plan provides general information about all the components including all-hazards preparedness, EMS, and public health integration; however, it is difficult to determine who is responsible and accountable for system performance and implementation. 4. The trauma system plan addresses every component of a well-organized and functioning trauma system including all-hazards preparedness and public health integration. Specific information of each component is provided, and trauma system design in inclusive of providing for specific goals and objectives for system performance. 5. The trauma system plans used to guide system implementation and management. Stakeholders and policy leaders are familiar with the plan and its components and use the plan to monitor system progress and to measure results. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 204: Sufficient resources, including those both financial and infrastructure related, support system planning, implementation, and maintenance.

Indicator	Scoring	Status
<p>204.1 The trauma system plan clearly identifies the human resources and equipment necessary to develop, implement, and manage the trauma program, both clinically and administratively. (The trauma system plan integrates with the Assessment of Resources done previously.)</p>	<ol style="list-style-type: none"> 1. There is no method of assessing available resources or of identifying resource deficiencies in either the clinical or administrative areas of the trauma system. 2. The trauma system plan addresses resource needs and identifies gaps in resources within the trauma system, but no mechanism for correcting resource deficiencies has been identified. 3. Resource needs are identified, and a draft plan, inclusive of goals and timelines, has been prepared to address the resource needs. The plan has not been implemented. 4. Resource needs are clearly identified, and action plans are being implemented to correct deficiencies in both clinical areas and administrative support functions. 5. A resource assessment survey has been completed and is incorporated into the trauma system plan. Goals and measurable objectives to reduce or eliminate resource deficiencies have been implemented. Evaluation of progress on meeting resource needs is evident, and when necessary, the plan has been adapted. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 204: Sufficient resources, including those both financial and infrastructure related, support system planning, implementation, and maintenance.

Indicator	Scoring	Status
<p>204.2 Financial resources exist that support the planning, implementation, and ongoing management of the administrative and clinical care components of the trauma system.</p>	<ol style="list-style-type: none"> 1. There is no funding to support the trauma system planning, implementation, or ongoing management and operations for either trauma system administration or trauma clinical care. 2. Some funding for trauma care within the third-party reimbursement structure has been identified, but ongoing support for administration and clinical care outside the third-party reimbursement structure is not available. 3. There is current funding for the development of the trauma system within the lead agency organization consistent with the trauma system plan, but costs to support clinical care support services have not been identified) transportation, communication, uncompensated care, standby fees, and others). No ongoing commitment of funding has been secured. 4. There is funding available for both administrative and clinical components of the trauma system plan. A mechanism to assess needs among various providers has begun. Implementation costs and ongoing support costs of the lead agency have been addressed within the plan. 5. A stable (consistent) source of reliable funding for the development, operations, and management of the trauma program (clinical care and lead agency administration) has been identified and is being used to support trauma planning, implementation, maintenance, and ongoing program enhancements. 	<p>2017-18 Assessment Score: ③</p>

Benchmark 204: Sufficient resources, including those both financial and infrastructure related, support system planning, implementation, and maintenance.

Indicator	Scoring	Status
<p>204.3 Designated funding for trauma system infrastructure support (lead agency) is legislatively appropriated.</p> <p>Note: Although nomenclature varies between jurisdictions, the intent of the indicator is to demonstrate long-term, stable funding for trauma system development, management, evaluation, and improvement.</p>	<ol style="list-style-type: none"> 1. There is no designated funding to support the trauma system infrastructure. 2. One-time funding has been designated for trauma system infrastructure support, and appropriations have been made to the lead agency budget. 3. Limited funds for trauma system development have been identified, but the funds have not been appropriated for trauma system infrastructure support. 4. Consistent, though limited, infrastructure funding has been designated and appropriated to the lead agency budget. 5. The legislature has identified, designated, and appropriated sufficient infrastructure funding for the lead agency consistent with the trauma system plan and priorities for funding administration and operations. 	<p>2017-18 Assessment Score: ③</p>

For Board of Health approval

Benchmark 204: Sufficient resources, including those both financial and infrastructure related, support system planning, implementation, and maintenance.

Indicator	Scoring	Status
<p>204.4 Operational budgets (system administration and operations, facilities administration and operations, and EMS administration and operations) are aligned with the trauma system plan and priorities. Examples: Full-Time Equivalents (FTEs) per population to support the infrastructure; costs to improve the communication system.</p>	<ol style="list-style-type: none"> 1. There are no operational budgets. 2. There are limited operational budgets, not sufficient to cover related program costs for the lead agency, the EMS system, or the trauma center. 3. There are operational budgets that may be sufficient to cover most program costs, but they are without regard to the trauma system plan or priorities. 4. There are operational budgets that have some ties to the trauma system plan and that include consideration for the extraordinary costs to the trauma system (e.g., providers). 5. An operational budget exists for each component in the plan and matches system needs and priorities with program and operational expenditures. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 206: Trauma system leaders, including a trauma-specific statewide multidisciplinary, multi-agency advisory committee, regularly review system performance reports.

Indicator	Scoring	Status
<p>206.2 The trauma-specific statewide multidisciplinary, Multi-agency advisory committee regularly reviews annotated trauma system data reports and system compliance information to monitor trauma system performance and to determine the need for system modifications</p>	<ol style="list-style-type: none"> 1. There is no trauma-specific statewide multidisciplinary, multi-agency advisory committee, and there are no regular reports of system performance. 2. There is a trauma-specific statewide multidisciplinary, multi-agency advisory committee, but it does not routinely review trauma system data reports. 3. The trauma-specific statewide multidisciplinary, multi-agency committee meets regularly and reviews process-type reports; no critical assessment of system performance has been completed. 4. The trauma-specific statewide multidisciplinary, multi-agency advisory committee meets regularly and routinely assesses reports from trauma data to determine system compliance and operational issues needing attention. 5. The trauma-specific statewide multidisciplinary, multiagency advisory committee and related stakeholder groups meet regularly and review trauma data reports to assess system performance over time, looking for ways to improve system effectiveness and patient outcomes. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 207: The lead agency informs and educates State, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.

Indicator	Scoring	Status
<p>207.1 The lead agency ensures communications, collaboration, and cooperation between State, regional, and local systems.</p>	<ol style="list-style-type: none"> 1. There is no evidence of active dialogue, either written or verbal, to suggest a strong working relationship between the trauma system lead agency and other governmental agencies (State, regional, or local). 2. There is little evidence that the lead agency and other governmental agencies working to implement a trauma system actively engage in system planning and operational dialogue. 3. The lead agency issues a quarterly update on trauma system activities. The update is largely one-way communication to other governmental agencies. Routine communication usually revolves around an event (reactionary); proactive, open communication is not the norm. 4. The lead agency, though its multidisciplinary committee, engages in open, frequent communication with its constituencies. Newsletters, activity reports, and proactive planning are occurring through the lead agency. Communication and collaboration among governmental organizations is occurring, although they are largely event based. 5. State, regional, and local systems engage in mutual and cooperative plan development and implementation. The lead agency seeks input and dialogue with a multitude of stakeholders. The communication is open, frequent, and proactive. Frequent dialogue occurs between the lead agency and local, regional, or state trauma system participants and leaders. There is evidence of mutual respect and sharing of information among the multidisciplinary groups. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 207: The lead agency informs and educates State, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.

Indicator	Scoring	Status
<p>207.2 The trauma system leaders (lead agency, advisory committees, and others) informs and educates constituencies and policy makers through community development activities, targeted media messaging, and active collaborations aimed at injury prevention and trauma system development.</p>	<ol style="list-style-type: none"> 1. No targeted messaging or media campaigns have begun to educate and inform community and State leaders or policy makers about either injury prevention needs or trauma system development activities. 2. Limited interfaces with policy makers and the media, aimed at both injury prevention and trauma system development, have occurred. Community development activities have been limited to incident-specific response opportunities. 3. Community activities have begun with the development of an injury prevention campaign, and there have been initial discussions with policy makers regarding trauma system development. 4. Trauma system leaders are engaging policymakers' discussions about injury prevention and the trauma system. Media awareness and media messaging have been targeted at injury prevention activities with limited trauma system integration. 5. A well-orchestrated and continuing trauma media campaign is under way. Key policy makers at the State, regional, and local levels are keenly aware of the benefits of a trauma system and of the importance of injury prevention programs. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 207: The lead agency informs and educates State, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.

Indicator	Scoring	Status
<p>207.3 Trauma system leaders (lead agency; trauma-specific statewide multidisciplinary, multi-agency advisory committees; and others) mobilize community partners in identifying the injury problem throughout the State and in building coalitions of personnel to design systems that can reduce the burden of injury.</p> <p>ACS Recommendation</p> <ul style="list-style-type: none"> • <i>Encourage participation on the Injury and Violence Prevention subcommittee that extends beyond the trauma center representatives, e.g., state injury epidemiologist, EMS, fire, police, public health, and injury prevention organizations.</i> • <i>Strengthen and maintain the relationship between the state trauma program and the VDH Injury and Violence Prevention Program</i> 	<ol style="list-style-type: none"> 1. No State lead agency exists to establish, maintain, or mobilize community partners in identifying the injury problem or in building community coalitions 2. A State lead agency to review and report in the injury problem statewide exists, but there is limited involvement with community coalitions or trauma system partners. 3. A State lead agency for injury prevention has been established, and a statewide injury coalition has been meeting regularly and reporting on the status of injury in the State. Interface between the injury coalition and the trauma-specific statewide multidisciplinary, multi-agency advisory committee or trauma system leaders (government, acute care, or rehabilitation) has been limited. 4. Trauma system leaders (lead agency; trauma-specific statewide multidisciplinary, multi-agency advisory committees, and others) for injury prevention have a proven track record for identifying the injury problem and for targeting messages and programs to reduce the impact of injury in the State. The injury prevention lead agency (if not the trauma system lead agency) interfaces with trauma-specific statewide multidisciplinary, multi-agency advisory committee. Trauma system and injury prevention leaders have begun to identify strategies and are working collaboratively. Key policy makers are well informed about the burden of injury in the State. 5. Trauma system and injury prevention leaders regularly inform and educate policy makers on trauma system development and injury prevention. Injury coalitions and trauma-specific statewide multidisciplinary, multi-agency advisory committees are integrated and work collaboratively to inform the community and to educate community leaders. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 207: The lead agency informs and educates State, regional, and local constituencies and policy makers to foster collaboration and cooperation for system enhancement and injury control.

Indicator	Scoring	Status
<p>207.4 A trauma system public information and education plan exists that heightens public awareness of trauma as a disease, the need for a trauma care system, and the prevention of injury.</p> <p><i>ACS Recommendation</i> Implement a web-based clearinghouse for the collection and maintenance of evidence-based injury prevention programs that can be accessed by the public.</p>	<ol style="list-style-type: none"> 1. There is not written public information and education plan on trauma system or injury prevention and control 2. There is a trauma system public information and education plan, but linkages between programs and implementation of specific objectives have waned. 3. There is a trauma system, and injury prevention plans have a linked public information and education component that has specific timetables and measurable goals and objectives 4. The trauma system public information and education plan are being implemented in accordance with the timelines established and agreed on by the stakeholders and coalitions 5. The trauma system public information and education plan are being implemented in accordance with the timelines. Data concerning the effectiveness of the strategies are used to modify the plan and programs. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.1 There is well-defined trauma system medical oversight integrating the specialty needs of the trauma system with the medical oversight for the overall EMS system.</p> <p>Note: The EMS System medical director and the trauma medical director may, in fact, be the same person.</p>	<ol style="list-style-type: none"> 1. There is not medical oversight for EMS providers within the trauma system. 2. EMS medical oversight for all level of prehospital providers caring for the trauma patient is provided, but such oversight is provided outside of the purview of the trauma system. 3. The EMS and trauma medical directors have integrated prehospital medical oversight for prehospital personnel caring for trauma patients. 4. Medical oversight is routinely given to EMS providers caring for trauma patients. The trauma system has integrated medical oversight for prehospital providers and routinely evaluates the effectiveness of both on-line and off-line medical oversight. 5. The EMS and trauma system fully integrate the most up-to-date medical oversight and regularly evaluate program effectiveness. System providers are included in the development of medical oversight policies. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.2 There is a clearly defined, cooperative, and ongoing relationship between the trauma specialty physician leaders (e.g., trauma medical director within each trauma center) and the EMS system medical director.</p>	<ol style="list-style-type: none"> 1. The trauma specialty physician leaders and the EMS system medical director provide conflicting medical oversight to emergency care providers. 2. There is no formally established, ongoing relationship between the trauma medical director (within each trauma center) and the EMS system medical director; there is no evidence of informal efforts to cooperate and communicate. 3. There is no formally established, ongoing relationship between the trauma medical director (within each trauma center) and the EMS system medical director; however, the trauma medical director and the EMS system medical director meet or visit informally to resolve problems, “to plan strategies,” and to coordinate efforts. 4. There is a formal, written procedure delineating the responsibilities of the trauma medical director (within each trauma center) and the EMS system medical director and specifying the formal method by which they work together. However, there is no evidence that the system is regularly used. 5. There is a formal, written procedure delineating the responsibilities of the trauma medical director (within each trauma center) and the EMS system medical director and specifying the formal method by which they work together. There is written documentation including, for instance, meeting minutes indicating this relationship is regularly used to coordinate efforts. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 303: Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.

Indicator	Scoring	Status
<p>303.1 The trauma system plan has clearly defined the roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to specialty populations (e.g., burn, pediatric, spinal cord injury, and others).</p>	<ol style="list-style-type: none"> 1. There is no trauma system plan that outlines roles and responsibilities of all acute care facilities treating trauma and of facilities that provide care to special populations. 2. There is a trauma system plan, but it does not address the roles and responsibilities of licensed acute care and specialty care facilities. 3. The trauma system plan addresses the roles and responsibilities of licensed acute care facilities or specialty care facilities, but not both. 4. The trauma system plan addresses the roles and responsibilities of licensed acute care facilities and specialty care facilities. 5. The trauma system plan clearly defines the roles and responsibilities of all acute care facilities treating trauma within the system jurisdiction. Specialty care services are addressed within the plan, and appropriate policies and procedures are implemented and tracked. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 303: Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.

Indicator	Scoring	Status
<p>303.3 The trauma lead authority ensures that trauma facility patient outcomes and quality of care are monitored. Deficiencies are recognized and corrective action is implemented. Variations in standards of care are minimized, and improvements are made routinely.</p>	<ol style="list-style-type: none"> 1. There is no requirement for trauma facilities to monitor patient outcomes and quality of care. 2. Designated trauma facilities are required to maintain a trauma registry including patient outcomes, but they are not required to regularly monitor these outcomes, or quality of care, and are required to report those findings to the lead trauma authority. 3. Designated trauma facilities are required to maintain a trauma registry and to use data from the registry in an ongoing performance improvement program to monitor and to improve the quality of care and patient outcomes. 4. Designated trauma facilities are required to maintain a trauma registry including patient outcomes, to use these data in an ongoing performance improvement program, to provide regular comparisons to local trauma system standards, and to report those findings to the lead trauma authority. 5. Designated trauma facilities are required to maintain a trauma registry including patient outcomes, to use these data in an ongoing performance improvement program. Deficiencies in meeting the local trauma system standards are recorded, and corrective action plans are instituted. Results of comparisons with State or national norms are regularly provided to the trauma agency, along with an explanation for significant variations from these norms, and a written plan to reduce these variations. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 303: Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.

Indicator	Scoring	Status
<p>303.3 The specific needs of unique populations, for example, English As a Second Language (EASL), socially disadvantaged, migrant/transient, remote, rural, and others, are accommodated within the existing trauma system.</p>	<ol style="list-style-type: none"> 1. There has been no consideration of the specific needs of unique populations, for example, EASL, in making an impact on the patient’s access to care within the trauma system. 2. The lead agency and stakeholders are beginning to consider the specific needs of unique populations in implementing the trauma system. 3. The lead agency has, within the trauma system plan, identified the unique populations that may require special accommodations with the trauma system to effectively meet their needs. 4. The lead agency has, within the trauma system plan, accommodations for unique populations that allow them to effectively access trauma care. Monitoring processes are in development. 5. The trauma system has accommodated the specific needs of unique populations by allowing them to effectively access trauma care. Routine monitoring, review, and reporting of these populations are incorporated into the evaluation of trauma system effectiveness. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 309: The financial aspects of the trauma systems are integrated into the overall performance improvement system to ensure ongoing “fine-tuning” and cost-effectiveness.

Indicator	Scoring	Status
<p>309.1 Cost data are collected and provided to the trauma system registry for each major component including prevention, prehospital, acute care all-hazards response planning, and rehabilitation.</p>	<ol style="list-style-type: none"> 1. No cost data are collected. 2. Administrative and program cost data are collected and included in the annual trauma system report. 3. In addition to administrative and program costs, clinical charges and costs are included in one or more major component areas and are provided to the trauma system registry for inclusion in the annual trauma system report. 4. The costs associated with individual system components, for example, prehospital, can be determined and are provided to the trauma system registry for inclusion in the annual trauma system report. 5. The cost of an aggregate system can be determined and is provided to the trauma system registry for inclusion in the annual trauma system report. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 309: The financial aspects of the trauma systems are integrated into the overall performance improvement system to ensure ongoing “fine-tuning” and cost-effectiveness.

Indicator	Scoring	Status
<p>309.2 Collection and reimbursement data are submitted by each agency or institution on at least an annual basis. Common Definitions exist for collection and reimbursement data and are submitted by each agency.</p>	<ol style="list-style-type: none"> 1. Collection and reimbursement data are not gathered, nor do common definitions exist. 2. Common definitions exist, and collection and reimbursement data are available and reports to the lead agency for one or more clinical components. 3. Common definitions exist. Collection and reimbursement data are available and reported to the lead agency for one or more clinical components, and are compared to cost data for those components. 4. Common definitions exist. Collection and reimbursement data are available and reported to the lead agency for all clinical components, and are compared to cost data for those components. 5. Common definitions exist. Collection and reimbursement data are available and report to the lead agency for all clinical components, are compared to cost data for those components, and are reported in an aggregate for in the annual trauma system report. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 309: The financial aspects of the trauma systems are integrated into the overall performance improvement system to ensure ongoing “fine-tuning” and cost-effectiveness.

Indicator	Scoring	Status
<p>309.3 Cost, charge, collection, and reimbursement data are aggregated with other data sources including insurers and data system costs and are include in annual trauma system reports.</p> <p>Note: “Outside” financial data means costs that may not routinely be captured in trauma center or registry data.</p>	<ol style="list-style-type: none"> 1. No outside financial data are captured. 2. Outside financial data are collected from one or sources (e.g., Medicaid or private insurers). 3. Extensive financial data, for example, cost charge, collection, and reimbursement, are collected from one or more sources. Sufficient expertise is available to the trauma system to analyze and report complex fiscal data. 4. Outside financial data are combined with internal trauma system data and are used to estimate total system costs. 5. Outside financial data are combined with internal trauma system data and are used to estimate total system costs. There financial data are described in detail in the annual trauma system report. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 309: The financial aspects of the trauma systems are integrated into the overall performance improvement system to ensure ongoing “fine-tuning” and cost-effectiveness.

Indicator	Scoring	Status
<p>309.4 Financial data are combined with other cost, outcome, or surrogate measures, for example, years of potential life (YPLL), quality-adjusted life years (QALY), and disability-adjusted life years (DALY); length of stay; length of Intensive Care Unit (ICU) stay; number of ventilator days; and others, to estimate and track true system costs and cost-benefits.</p>	<ol style="list-style-type: none"> 1. No nonfinancial burden of disease costs and outcome measures are collected or modeled. 2. Estimated savings using various burdens of disease costs or outcome measure models are calculated for all injury prevention programs. 3. Estimated saving using various burdens of disease costs or outcome measure models are calculated for actual system costs. 4. Estimated savings using various burdens of disease costs or outcome measure models are calculated for all injury prevention programs and are combined with actual system cost data to determine costs and saving of the total system. 5. Estimated savings using various burdens of disease costs or outcome measure models are calculated for all injury prevention programs, are combined with actual system cost data to determine costs and savings of the total system, and are described in detail in the annual trauma system report. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.13 There is authority for a trauma medical director, and a clear job description, including requisite education, training, and certification, for this position. Note: The trauma medical director and the EMS system medical director may be the same person.</p>	<ol style="list-style-type: none"> 1. There is no requirement for a trauma medical director, and no job description has been developed. 2. There is authority for a trauma medical director, but no job description has been developed. 3. There is authority for a trauma medical director, and a job description is under development. Approval to hire is pending. 4. There is authority for a trauma medical director. The plan to hire one has been developed along with a comprehensive job description, including requisite education, training, and certification. 5. There is authority for a trauma medical director, and the job description, including requisite education, training, and certification, for the trauma medical director is clear. A physician appropriately credentialed has been hired, and the job classification is routinely assessed for appropriateness of the duties required. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 311: The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system.

Indicator	Scoring	Status
<p>311.2 The lead agency refers issues of personnel noncompliance with trauma laws, rules, and regulations to appropriate boards or licensure authorities.</p>	<ol style="list-style-type: none"> 1. Individual personnel performance is not monitored. 2. Complaints about individual personnel noncompliance with trauma laws, rules, and regulations go directly to appropriate boards or licensure authorities. 3. Trauma authority personnel collaborate actively with licensure authorities to resolve complaints involving individual personnel noncompliance with trauma laws, rules, and regulations. 4. Individual personnel performance issues are addressed within trauma performance improvement processes unless they involve breaches of State or Federal statute. 5. Appropriate boards or licensure authorities are involved in the system performance improvement processes addressing individual personnel performance issues. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 311: The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system.

Indicator	Scoring	Status
<p>311.4 Laws, rules, and regulations are routinely reviewed and revised to continually strengthen and improve the trauma system.</p>	<ol style="list-style-type: none"> 1. There is no process for examining laws, rules, or regulations. 2. Laws, rules, and regulations are reviewed and revised only in response to a "crisis" (e.g., malpractice insurance costs). 3. Laws, rules, and regulations are reviewed and revised on a periodic schedule (e.g., every 5 years). 4. Laws, rules, and regulations are reviewed by agency personnel on a continuous basis and are revised as needed. 5. Laws, rules, and regulations are reviewed as part of the performance improvement process involving representatives of all system components and are revised as they negatively impact system performance. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 311: The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system.

Indicator	Scoring	Status
<p>311.5 The lead agency routinely evaluates all system components to ensure compliance with various laws, rules, and regulations pertaining to their role and performance within the trauma system.</p>	<ol style="list-style-type: none"> 1. The lead agency does not have the authority to evaluate all system components (e.g., prehospital). 2. Complaints concerning individual component performance within the trauma system go directly to the licensure agency responsible for that component. 3. Trauma agency personnel collaborate actively with licensure agencies to resolve complaints involving component performance within the trauma system. 4. Deficiencies in individual system components are addressed as part of the trauma system performance improvement process. 5. System components are equitably represented in the trauma system improvement process and work to improve individual component compliance and overall trauma system performance. De-designation, or revocation of licenses or certifications, is used only as a course of last resort to safeguard public health. 	<p>2017-18 Assessment Score: ⑤</p>

Benchmark 311: The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system.

Indicator	Scoring	Status
<p>311.6 Incentives are provided to individual agencies and institutions to seek State or nationally recognized accreditation in areas that will contribute to overall improvement across the trauma system, for example, Commission on Accreditation of Ambulance Services (CAAS) for prehospital agencies, Council on Allied Health Education Accreditation (CAHEA) for training programs, and American College of Surgeons (ACS) verification for trauma facilities.</p>	<ol style="list-style-type: none"> 1. There are no incentives for outside review and accreditation. 2. Accreditation processes are generally encouraged but are not specifically acknowledged; for example, no special dispensation is offered to agencies or institutions completing such accreditation. 3. Accreditation processes are strongly encouraged, and some incentives are provided, for example, extension of EMS agency review from 2 years to 3 years after CAAS accreditation. 4. Incentives are provided to agencies that successfully complete outside accreditation processes, for example, acceptance of CAAS accreditation instead of local EMS agency review. 5. As part of the system performance improvement process, the impact of outside review and accreditation on various agencies and institutions is monitored, and incentives are provided as appropriate. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval
System Improvement Committee
Benchmarks, Indicators and Scoring

Benchmark 101: There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.1 There is a thorough description of the epidemiology of injury mortality in the system jurisdiction using population-based data.	<ol style="list-style-type: none"> 1. There is no thorough description of the epidemiology of injury mortality in the system jurisdiction. 2. Death certificate data have been used to describe the statewide incidence of trauma deaths aggregating all etiologies, but no E-code reporting is available. 3. Death certificate data, by E-code, are reported on a statewide basis, but are not reported by sub-State jurisdiction. 4. Death certificate data, by E-code, are reported on statewide and sub-State jurisdictions. These data are compared to national benchmarks, if available. 5. Death certificate data, by E-code, are used as part of the overall assessment of trauma care in a State or sub- State, including statewide rural and urban preventable mortality studies. 	2017-18 Assessment Score: ④

Benchmark 102: There is an established trauma management information system (MIS) for ongoing injury surveillance and system performance assessment.

Indicator	Scoring	Status
102.1 There is an established injury surveillance process that can, in part, be used as an MIS performance measure.	<ol style="list-style-type: none"> 1. There is no established system-wide injury surveillance process. 2. There is a system-wide trauma registry, but not all hospitals in the service area contribute to the trauma management information system. 3. There is a system-wide trauma registry with all hospitals in the service area contributing data. 4. The system-wide trauma registry data are bolstered by one or more of the following databases: EMS data system, ED data system, or hospital discharge data. 5. The statewide trauma registry, EMS data system, ED data system, hospital discharge data, rehabilitation, and burn data system are accessible, electronically linked, and have consistent data definitions and elements. The data are used for both 	2017-18 Assessment Score: ③

Benchmark 102: There is an established trauma management information system (MIS) for ongoing injury surveillance and system performance assessment.

Indicator	Scoring	Status
102.2 Injury surveillance is coordinated with statewide and local community health surveillance.	<ol style="list-style-type: none"> 1. Injury surveillance, as described in 102.1, does not occur within the system. 2. Injury surveillance occurs in isolation from other health risk surveillance and is reported separately. 3. Injury surveillance occurs in isolation but is combined and reported with other health risk surveillance processes. 4. Injury surveillance occurs as part of broader health risk assessments. 5. Processes of sharing and linkage of data exist between EMS systems, public health systems, and trauma systems, and the data are used to monitor, investigate, and diagnose community health risks. 	2017-18 Assessment Score: ③

For Board of Health approval

Benchmark 102: There is an established trauma management information system (MIS) for ongoing injury surveillance and system performance assessment.

Indicator	Scoring	Status
<p>102.3 Trauma data are electronically linked from a variety of sources.</p> <p>Note: Deterministically means with such patient identifiers as name and date of birth. Probabilistically means computer software is used to match likely records through such less certain identifiers as date of incident, patient age, gender, and others.</p>	<ol style="list-style-type: none"> 1. Trauma registry data exist but are not deterministically or probabilistically linked to other databases. 2. Trauma registry data exist and can be deterministically linked through hand-sorting processes. 3. Trauma registry data exist and can be deterministically linked through computer-matching processes. 4. Trauma registry data exist and can be deterministically and probabilistically linked to at least one other injury database including: EMS data systems (i.e., patient care records, dispatch data, and others), ED data systems, hospital discharge data, and others. 5. All data stakeholders (insurance carriers, FARS, and rehabilitation, in addition to typical trauma system resources) have been identified, data access agreements executed, hardware and software resources secured, and the “manpower” designated to deterministically and probabilistically link, analyze, and report a variety of data sources in a timely manner. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 102: There is an established trauma management information system (MIS) for ongoing injury surveillance and system performance assessment.

Indicator	Scoring	Status
<p>102.4 There is a process to evaluate the quality, timeliness, completeness, and confidentiality of data.</p>	<ol style="list-style-type: none"> 1. There is no process or written policy to evaluate the quality, timeliness, completeness, and confidentiality of the data collected in the system. 2. There is a process of evaluation and written policy but no compliance with governance. Confidentiality of information is not ensured. 3. The process of reviewing the quality, timeliness, completeness, and confidentiality of data is just beginning. There is some compliance with a draft written policy. 4. There are draft written policies in place for evaluating the quality (including both reliability and validity), timeliness, and completeness of data and for ensuring confidentiality. 5. There is a comprehensive written policy and demonstrated compliance concerning data management and governance including an evaluation of the quality, timeliness, and completeness of data, with confidential protection of records ensured while allowing appropriate access for research purposes. 	<p>2017-18 Assessment Score: ③</p>

For Board of Health approval

Benchmark 102: There is an established trauma management information system (MIS) for ongoing injury surveillance and system performance assessment.

Indicator	Scoring	Status
102.5 There is an established method of collecting trauma financial data from all health care facilities and trauma agencies including patient charges as well as administrative and system costs.	<ol style="list-style-type: none"> 1. Financial data are not collected as part of the trauma system registry. 2. Financial data are collected as part of the trauma system registry at individual facilities but are not reported to the lead trauma authority. 3. Financial data are collected as part of the trauma system registry and are analyzed and reported by the lead trauma authority. 4. Financial data from the trauma registry are linked with at least one other source of cost data such as hospital discharge data. 5. Financial data are linked and analyzed from the trauma registry, insurers, emergency department, EMS, hospital discharge, and rehabilitation and are compared with general trauma system infrastructure costs to establish the general financial health of the system and its value to the community. 	2017-18 Assessment Score: ①

Benchmark 105: The system assesses and monitors its value to its constituents in terms of cost-benefit analysis and societal investment.

Indicator	Scoring	Status
105.1 The benefits of the trauma system, in terms of years of productive life lost (YPLL), quality-adjusted life years (QALY), disability-adjusted life years (DALY), and so on, are described.	<ol style="list-style-type: none"> 1. There are no cost data available to the system to compare to quality of life indicators. 2. Trauma system costs are included in the trauma management information system that can serve as the basis for these calculations. 3. Additional sources of data, in terms of other economic and quality of life measures, are available. 4. Cost and quality of life measures can be analyzed and presented in descriptive and graphic form. 5. A series of reports and fact sheets are available and regularly updated to descriptively and graphically illustrate costs and benefits of the trauma system as well as the cost and benefits of specific personal behaviors. 	2017-18 Assessment Score: ①

Benchmark 205: Collected data are used to evaluate system performance and to develop public policy.

Indicator	Scoring	Status
205.1 Collected data are used for strategic and budgetary planning.	<ol style="list-style-type: none"> 1. There is no central data repository that can be accessed for strategic or budgetary planning. 2. There are varying databases that can be accessed but no single reporting structure to produce reports and to analyze findings. 3. Data are collected and stored in a central repository; however, reports are not routinely generated that could be used for strategic or budgetary planning. 4. There is a central warehouse for trauma and system financial data that are used for annual reporting of system performance. 5. There is a central repository and data warehouse for all trauma system data. System participants including trauma centers and the lead agency can access the data. Regular (written, on-line, or electronic) reports are generated to identify financial information and budget utilization. Regular reports are used for strategic planning and performance efficiency. 	2017-18 Assessment Score: ②

For Board of Health approval

Benchmark 205: Collected data are used to evaluate system performance and to develop public policy.

Indicator	Scoring	Status
<p>205.2 Collected data from a variety of sources are used to review the appropriateness of trauma system policies and procedures.</p> <p>Note: The format of the reports in this and other sections may be written, Web-based, or other electronic media</p>	<ol style="list-style-type: none"> 1. There are no written, quantifiable trauma system performance standards or performance improvement mechanisms. 2. There are draft written, quantifiable system performance standards or performance improvement mechanisms for each component of the trauma system. 3. There are written, quantifiable system performance standards and performance improvement mechanisms that have been adopted by the lead agency in consultation with the trauma-specific statewide multidisciplinary, multi-agency advisory committee. 4. Data from trauma, EMS, public safety, and other sources are routinely used by the lead agency to assess the extent of compliance of the trauma system with adopted standards. 5. The lead agency, in cooperation with the trauma-specific statewide multidisciplinary, multi-agency advisory committee, uses compliance data from trauma, EMS, public safety, and other sources to improve system design changes or to make other system refinements. There is routine and consistent feedback to all system providers to ensure that data-identified deficiencies are corrected. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 205: Collected data are used to evaluate system performance and to develop public policy.

Indicator	Scoring	Status
<p>205.3 The trauma management information system (MIS) is used to assess system performance, to measure system compliance with applicable standards, and to allocate trauma system resources to areas of need or to acquire new resources.</p>	<ol style="list-style-type: none"> 1. There is no trauma management information system. 2. There is a limited trauma management information system consisting of a trauma patient registry, but no data extraction is used to identify resource needs, to establish performance standards, or to routinely assess and evaluate system effectiveness. 3. There is a trauma management information system that routinely reports (written, on-line, or electronic) on system-wide management performance and compliance. Linkage between management reports, resource utilization, and performance measures has begun. 4. Routine trauma MIS reports are issued at the State, regional, and local levels as well as at the provider level. Reports focus on management strengths, compliance with standards, and resource utilization. Trends are used to improve system efficiency and performance. 5. Trauma MIS reports are used extensively to improve and report on system performance. The lead agency issues regular and routine reports to providers. Trauma leaders assess reports to determine system deficiencies and to allocate resources to areas of greatest need. System performance and standard compliance are assessed and reported. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 205: Collected data are used to evaluate system performance and to develop public policy.

Indicator	Scoring	Status
205.5 Education for trauma system participants is developed based on a review and evaluation of trauma MIS data.	<ol style="list-style-type: none"> 1. There is no correlation between training programs for providers and the trauma management information system. 2. There is limited use of trauma MIS reports to target educational opportunities. 3. There is evidence that some providers are using trauma MIS reports to identify educational needs and to incorporate them into training programs. 4. Many educational forums have been conducted based on an analysis of the performance data in the trauma management information system. Clear ties link education of providers with identified areas of need from trauma MIS reports. 5. Routine analysis of trauma information and educational opportunities is being conducted. Integrated program objectives tying system performance and education are implemented and routinely evaluated. Regular updates to trauma information and education are available. Trauma MIS data are used to measure outcomes and effectiveness. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 206: Trauma system leaders, including a trauma-specific statewide multidisciplinary, multi-agency advisory committee, regularly review system performance reports.

Indicator	Scoring	Status
206.1 Trauma data reports are generated by the trauma system no less than once per year and are disseminated to trauma system leaders and stakeholders to evaluate and improve system performance effectiveness.	<ol style="list-style-type: none"> 1. No trauma data reports are generated to evaluate and improve system performance effectiveness. 2. Some general trauma system information is available for the stakeholders, but it is not consistent or regular. 3. Trauma data reports are done on an annual basis but are not used for decision making and evaluating system effectiveness. 4. Routine reports are generated using trauma system data and other databases so that the system can be analyzed, standards evaluated, and performance measured. 5. Regularly scheduled reports are generated from trauma system data and are used by the stakeholder groups to evaluate and improve system performance effectiveness. 	<p>2017-18 Assessment Score: ③</p>

For Board of Health approval

Benchmark 208: The trauma, public health, and emergency preparedness systems are closely linked.

Indicator	Scoring	Status
<p>208.1: The trauma system and the public health system have established linkages including programs with an emphasis on population-based public health surveillance, and evaluation, for acute and chronic traumatic injury and injury prevention.</p>	<ol style="list-style-type: none"> 1. There is no evidence that demonstrates program linkages, a working relationship, or the sharing of data between public health and the trauma system. Population-based public health surveillance, and evaluation, for acute or chronic traumatic injury and injury prevention has not been integrated with the trauma system. 2. There is little population-based public health surveillance shared with the trauma system, and program linkages are rare. Routine public health status reports are available for review by the trauma system lead agency and constituents. 3. The trauma system and the public health system have begun sharing public health surveillance data for acute and chronic traumatic injury. Program linkages are in the discussion stage. 4. The trauma system has begun to link with the public health system, and the process of sharing public health surveillance data is evolving. Routine dialogue is occurring between programs. 5. The trauma system and the public health system are integrated. Routine reporting, program participation, and system plans are fully vested. Operational integration is routine, and measurable progress can be demonstrated. (Demonstrated integration and linkage could include such activities as rapid response to and notification of incidents, integrated data systems, communication cross-operability, and regular epidemiology report generation.) 	<p>2017-18 Assessment Score: ①</p>

Benchmark 301: The trauma management information system (MIS) is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system including a cost-benefit analysis.

Indicator	Scoring	Status
<p>301.1 The lead trauma authority ensures that each member hospital of the trauma system collects and uses patient data as well as provider data to assess system performance and to improve quality of care. Assessment data are routinely submitted to the lead trauma authority.</p>	<ol style="list-style-type: none"> 1. There is no system-wide management information data collection system that the trauma centers and other community hospitals regularly contribute to or use to evaluate the system. 2. There is a trauma registry system in place in the trauma centers, but it is used by neither all facilities within the system nor the lead trauma authority to assess system performance. 3. The trauma management information system contains information from all facilities within a geographic area. 4. The trauma management information system is used by the trauma centers to assess provider and system performance issues. 5. Hospital trauma registry data are routinely submitted to the lead trauma authority, are aggregated, and are used to evaluate overall system performance. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 301: The trauma management information system (MIS) is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system including a cost-benefit analysis.

Indicator	Scoring	Status
301.2 Prehospital care providers collect patient care and administrative data for each episode of care and provide these data not only to the hospital, but have a mechanism to evaluate the data within their own agency including monitoring trends and identifying outliers	<ol style="list-style-type: none"> 1. There is no jurisdiction-wide prehospital data collection. 2. Prehospital care providers have a patient care record for each episode of care, but it is not yet automated or integrated with the trauma management information system. 3. The prehospital patient care record electronically captures patient care provided by field personnel and can be transferred or entered into the trauma registry system within individual trauma centers. 4. The prehospital patient data system is integrated into the trauma management information system and is used by prehospital and hospital personnel to review and evaluate prehospital and system performance. 5. Individual prehospital agency data are electronically submitted to the lead trauma authority, are aggregated with other prehospital agency data, and are used to evaluate overall trauma system performance. 	2017-18 Assessment Score: ②

Benchmark 301: The trauma management information system (MIS) is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system including a cost-benefit analysis.

Indicator	Scoring	Status
301.3 Trauma registry, emergency department (ED), prehospital, rehabilitation, and other databases are linked or combined to create a trauma system registry.	<ol style="list-style-type: none"> 1. Some trauma registry and prehospital patient records are manually entered into a database when needed to answer system questions. There is no rehabilitation registry. 2. There are databases for trauma, emergency departments, prehospital, and rehabilitation as well as statewide injury databases. None of the databases are routinely linked. 3. There are electronic trauma registry and prehospital patient record databases. Both databases are linked, but the system does not use these data for routine review of system performance. Some rehabilitation data are collected separately from the trauma registry. 4. There is an integrated management information system that includes, at a minimum, hospital and prehospital databases. The information is linked, and providers use the databases for system evaluation. Rehabilitation centers routinely provide electronic data to the trauma registry system. 5. There is an integrated management information system that includes, at a minimum, trauma, ED, prehospital, 9-1-1 dispatch, and rehabilitation databases that are regularly used by the lead trauma authority and system provider agencies to monitor trauma system performance. 	2017-18 Assessment Score: ①

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
302.5 The retrospective medical oversight of the EMS system for trauma triage, communications, treatment, and transport is closely coordinated with the established performance improvement processes of the trauma system	<ol style="list-style-type: none"> 1. There is no retrospective medical oversight procedure for trauma triage, communications, treatment, and transport. 2. There is a retrospective medical oversight procedure for trauma triage, communications, treatment, and transport by both the trauma system and the EMS system, but the two processes are in conflict with each other or use different review criteria. 3. There is a retrospective medical oversight procedure for trauma triage, communications, treatment, and transport by the performance improvement processes of the trauma system or by the EMS system; however, this procedure is not coordinated. 4. By the performance improvement processes of the trauma system, there is retrospective medical oversight for trauma triage, communications, treatment, and transport that is coordinated with the EMS system retrospective medical direction, or by performance improvement processes of the EMS system that are coordinated by the trauma system. 5. There is retrospective medical oversight of the trauma triage, communications, treatment, and transport that is coordinated with the EMS system retrospective medical direction. There is evidence this procedure is being regularly used to monitor system performance and to make system improvements. 	<p>2017-18 Assessment Score: 3</p>

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
302.6 There are mandatory system-wide prehospital triage criteria to ensure that trauma patients are transported to an appropriate facility based on their injuries. These triage criteria are regularly evaluated and updated to ensure acceptable and system-defined rates of sensitivity and specificity for appropriately identifying the major trauma patient.	<ol style="list-style-type: none"> 1. There are no mandatory universal triage criteria to ensure trauma patients are transported to the most appropriate hospital. 2. There are differing triage criteria guidelines used by different providers. Appropriateness of triage criteria and subsequent transportation are not evaluated for sensitivity or specificity. 3. Universal triage criteria are in the process of being linked to the management information system for future evaluation. The triage criteria are used by all prehospital providers. 4. There is system-wide evaluation of the effectiveness of the triage tools in identifying trauma patients and in ensuring that they are transported to the appropriate facility. 5. System participants routinely evaluate the triage criteria for effectiveness. There is linkage with the trauma system, and sensitivity and specificity (over- and under- triage rates) of the tools used are regularly reported through the trauma lead authority. Updates to the triage criteria are made as necessary to improve system performance. 	<p>2017-18 Assessment Score: 5</p>

For Board of Health approval

Benchmark 304: The jurisdictional lead agency, in cooperation with other agencies and organizations, uses analytical tools to monitor the performance of population-based prevention and trauma care services.

Indicator	Scoring	Status
<p>304.2 The trauma system MIS database is available for routine public health surveillance. There is concurrent access to the databases (emergency department, trauma, prehospital medical examiner, and public health epidemiology) for the purpose of routine surveillance and monitoring of health status that occurs regularly and is a shared responsibility.</p>	<ol style="list-style-type: none"> 1. There is no sharing of databases between emergency department, trauma, prehospital, medical examiner, or public health epidemiology. 2. The databases can be accessed by only the owner of the data and sharing of information goes through a formal request process. 3. There is concurrent access to the databases (emergency department, trauma, prehospital medical examiner, and public health epidemiology) but no sharing of databases that would support public health surveillance. 4. The databases are shared among emergency department, trauma, prehospital, medical examiner, and public health epidemiology. Access issues have been resolved, and epidemiologic monitoring is beginning to routinely monitor the data for unusual events. 5. The databases of emergency departments, trauma, prehospital, medical examiner, and public health epidemiology are shared files. The epidemiology staff can review all the databases and registries for routine surveillance and unusual occurrences. Concurrent review by the respective groups is used to ensure the effectiveness of the injury prevention and trauma system. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 306: The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area.

Indicator	Scoring	Status
<p>306.1 The trauma system has developed mechanisms to engage the general medical community and other system participants in their research findings and performance improvement efforts.</p>	<ol style="list-style-type: none"> 1. There is no evidence that the trauma system reaches out to the general medical community at large to integrate it into trauma system improvements. 2. There is some evidence of general medical community interface with the trauma centers, but it is sporadic and not well coordinated. 3. The trauma system can demonstrate routine interface with the general medical community regarding trauma care updates and performance improvements. 4. The trauma system has a formal mechanism to discuss trauma care, system improvements, and research results with the general medical community within its jurisdiction. 5. There is strong evidence of active participation between the trauma system and the general medical community. Routine discussions are held; performance updates are shared; and research results are integrated within the medical care system. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 307: To maintain its State, regional, or local designation, each hospital will continually work to improve the trauma care as measured by patient outcomes.

Indicator	Scoring	Status
<p>307.2 The trauma system implements and regularly reviews a standardized report on patient care outcomes as measured against national norms</p>	<ol style="list-style-type: none"> 1. There is no evidence that the trauma system engages in any review of patient care outcome data to evaluate its performance against national norms. 2. There is some standardized measurement of outcomes for trauma patients within the trauma system and applied to the trauma centers. 3. Through the lead agency, trauma centers use a national standardized measurement tool to assess the quality of trauma patient care outcomes and to regularly report trends in performance improvement committee reports. 4. The trauma system has established standardized measurements of trauma patient care outcomes based on national norms and routinely uses the report to highlight improvements in trauma patient care or to identify patient care issues needing remedial action. 5. The trauma system has completed an assessment of trauma care outcomes based on national norms and implements any corrective action noted. Routine measurements of quality are carried out, and regular reporting is accomplished with improvements instituted, trends reported, and highlights acknowledged as necessary 	<p>2017-18 Assessment Score: ①</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.11 There are mechanisms within the system performance improvement processes to identify and correct systemic personnel deficiencies within the trauma system.</p> <p>Note: Systemic personnel deficiencies are those that cut across multiple agencies and institutions and impact the system as a whole. For example, if trauma triage protocols are not being adhered to by most prehospital providers from multiple agencies, then it is a systemic problem that could involve communication, training, medical direction, or performance improvement issues</p>	<ol style="list-style-type: none"> 1. There is no mechanism to identify, through performance improvement processes, systemic personnel deficiencies within the trauma system. 2. The trauma system has begun to identify systemic personnel deficiencies. 3. The trauma system has a mechanism to identify systemic personnel deficiencies and is working on a process for corrective action. 4. The trauma system has a mechanism to identify systemic personnel deficiencies and is instituting corrective actions across the system. 5. Trauma stakeholders, including trauma centers and the lead agency, monitor and correct personnel deficiencies as identified through quality assurance and performance improvement processes. A method of corrective action has been instituted, and appropriate follow up is occurring. Monitoring of system deficiencies and corrective actions is ongoing. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval
Injury and Violence Prevention Committee
Benchmarks, Indicators and Scoring

Benchmark 101: There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.4 Collaboration exists between EMS, public health officials, and trauma system leaders to complete injury risk assessments.	<ol style="list-style-type: none"> 1. No injury risk assessments are conducted. 2. Trauma system officials conduct injury assessments; however, there is no involvement of EMS or public health officials in those assessments. 3. Public health officials, along with EMS and trauma system participants, assist with the design of injury risk assessments. 4. Public health officials, along with EMS and trauma system leaders, assist with the design and analysis of injury risk assessments. 5. The public health epidemiologist, along with EMS and trauma system leaders, is involved in the development of injury reports. There is clear evidence of data sharing, data linkage, and well-defined reporting roles and responsibilities. 	2017-18 Assessment Score: ①

Benchmark 101. There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.5: Integration of injury into other public health risk assessments occurs at State, regional, and community levels, resulting in the integration into key reports and planning documents such as <i>Healthy People 2010</i>.	<ol style="list-style-type: none"> 1. No injury risk assessments are completed. 2. Injury risk assessments are conducted in a segregated manner by the trauma program, separate from other public health risk assessments. 3. Injury risk assessments are combined with other assessment data, after separate collection and analysis efforts. 4. Injury risk assessments are conducted by public health officials as an integrated component with other health risk assessments. 5. Injury risk assessments are conducted by public health officials as an integrated component with other health risk assessments. Comparisons and contrasts between injury death and disability rates are made, fully integrated, and published, along with other leading health risk indicators, for example, HIV/AIDS, cardiac, and cancer, in Health of the State and other formal public health documents. 	2017-18 Assessment Score: ①

For Board of Health approval

Benchmark 101. There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.6: The trauma system works with EMS and the public health system to complete a jurisdiction-wide study of the determinants of injury using existing data sources and public health tools.	<ol style="list-style-type: none"> 1. There is no jurisdiction-wide study of the determinants of injury. 2. The trauma system, EMS, and public health officials (including EMS) using existing data sources such as the Behavioral Risk Factor Surveillance System (BRFSS) to describe determinants of injury among the general population. 3. The trauma system, EMS, and public health officials (including EMS) use existing data sources such as the Youth Risk Behavior Survey (YRBS) to describe determinants of injury among high-risk subpopulations. 4. Statewide data from all potential sources, for example, BRFSS, YRBS, Fatality Analysis Reporting System (FARS), vital records, and others, pertaining to the risk of injury, are summarized, electronically linked, and analyzed to determine the potential target areas for injury prevention activities. 5. A State injury prevention plan identifies injury prevention targets based, in part, on the determinants of injury and injury risk, and identifies strategies to document and demonstrate the cost-benefit of various behaviors. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 101: There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.7 The trauma system works with EMS and public health to identify special at-risk populations.	<ol style="list-style-type: none"> 1. There is no effort to describe risks to special at-risk populations such as age categories, cultural/ethnic populations, geographic variances, pediatrics, and high-risk co-morbidities, for example, substance abuse, or children with special health care needs, or any combination of these. 2. Risk assessments have been conducted for various age groupings, for example, adolescents and elder persons. 3. In addition to risk assessments for age cohorts, cultural/ethnic variations have been analyzed. 4. In addition to risk assessments for age and cultural/ethnic cohorts, geographic distribution of injury within the jurisdiction has been analyzed, for example, inner city versus suburban. 5. There is strong evidence that multiple special at-risk populations have been identified during the assessment processes. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 103. A resource assessment for the trauma system has been completed and is regularly updated.

Indicator	Scoring	Status
<p>103.3: There has been an initial assessment (and periodic reassessment) of overall system effectiveness.</p>	<ol style="list-style-type: none"> 1. No preventable mortality assessment has been conducted on a system-wide basis. 2. A system-wide preventable mortality study has been completed. 3. A system-wide preventable mortality study that includes rates, frequencies, and types of inappropriate care rendered within the hospitals participating in the trauma system has been conducted. 4. A system-wide preventable mortality study that includes rates, frequencies, and types of inappropriate care rendered in all phases of care within the trauma system, for example, prehospital, rehabilitation, and others, has been conducted. 5. The system has completed preventable mortality studies that include the determination of rates of inappropriate care, as well as an examination of the number of severely injured (ISS>15) patients arriving at the highest levels of available care within appropriate times. The assessment is repeated at regular intervals (could be an annual summary of deaths and complications). 	<p>2017-18 Assessment Score: ①</p>

Benchmark 203. The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.5 A written injury prevention and control plan is developed and coordinated with other agencies and community health programs. The injury program is data driven, and targeted programs are developed based on high injury risk areas. Specific goals with measureable objectives are incorporated into the injury plan.</p> <p>ACS Recommendation <i>Identify injury prevention priorities based on state epidemiology data and develop a state injury prevention plan.</i></p> <ul style="list-style-type: none"> • <i>Complete the plan within 1 year.</i> • <i>Implement one statewide injury prevention initiative the following year.</i> 	<ol style="list-style-type: none"> 1. There is no written plan for a coordinated injury prevention and control program 2. There are multiple injury prevention and control programs that may conflict with one another or with the goals of the trauma system, or both. 3. There is written plan for a coordinated injury prevention and control program that is linked to the trauma system plan and that has goals and time-specific, measurable objectives 4. The injury prevention and control plan is being implemented in accordance with established timelines. 5. The injury prevention and control plan is being implemented in accordance with established timelines; data concerning the effectiveness of the plan are being collected and are used to validate, evaluate, and modify the plan. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 205. Collected data are used to evaluate system performance and to develop public policy.

Indicator	Scoring	Status
205.4: Injury prevention programs use trauma MIS data to develop intervention strategies.	<ol style="list-style-type: none"> 1. There is no evidence to suggest that trauma MIS data are used to determine injury prevention strategies 2. There is some evidence that trauma MIS data are available for injury prevention program strategies, but the use of these data is limited and sporadic 3. Trauma MIS reports are routinely provided to the injury prevention programs. The usefulness of the reports has not been measured, and injury prevention providers are just beginning to use trauma injury reports for program strategies and decision making. 4. Trauma MIS reports on the status of injury, and injury mechanisms, are routinely available to injury prevention providers and are used routinely to realign injury programs to target the greatest need. 5. A well-integrated trauma an injury reporting system exists. Evidence is available to demonstrate how system providers routinely use MIS data to identify program needs, to develop strategies on program priorities, and to set annual goals for injury prevention. 	2017-18 Assessment Score: ②

Benchmark 301. The trauma management information system (MIS) is used to facilitate ongoing assessment and assurance of system performance and outcomes and provides a basis for continuously improving the trauma system including a cost-benefit analysis.

Indicator	Scoring	Status
301.4: The lead agency has available for use the latest in computer/technology advances and analytical tools for monitoring injury prevention and control components of the trauma system. There is reporting on the outcomes of implemented strategies for injury prevention and control programs within the trauma system.	<ol style="list-style-type: none"> 1. No computer/technology or analytical tools are available to the lead agency or other stakeholders to facilitate the monitoring of, or reporting on, the outcome of the implemented strategies for injury prevention and control within the trauma system. 2. There are integrated computer/technology systems, but the development and use of those systems for analytical monitoring and reporting has not yet begun. 3. The lead agency is using the computer/technology systems and analytical tools available to assist in monitoring the injury prevention and control programs of the trauma system. The evaluation of injury prevention and control programs is in its formative stages. 4. The lead agency has integrated the use of new computer/technology systems and analytical tools in the monitoring of injury prevention and control programs within the trauma system. 5. The trauma system participants, under the leadership of the trauma lead agency, have been trained in the use of the computer/technology systems and analytical tools. These tools are used routinely to monitor and report on the outcome of implemented strategies and on the effectiveness of injury prevention and control programs within the trauma system. A process is in place to facilitate the access to data for evaluation and research. 	2017-18 Assessment Score: ①

For Board of Health approval

Benchmark 304. The jurisdictional lead agency, in cooperation with other agencies and organizations, uses analytical tools to monitor the performance of population-based prevention and trauma care services.

Indicator	Scoring	Status
304.1: The lead agency, along with partner organizations, prepares annual reports on the status of injury prevention and trauma care in State, regional, or local areas.	<ol style="list-style-type: none"> 1. No annual reports are available on the status of injury prevention or trauma care in State, regional, or local areas. 2. Annual reports are prepared but are not based on input from providers and other key stakeholders. 3. Annual reports are written by the lead agency with input from the trauma centers. 4. Annual reports are written by the lead agency in conjunction with the trauma centers and other stakeholders. Multiple sub-reports on the status of trauma care and injury prevention in State, regional, or local areas are distributed throughout the year. 5. There is an integrated annual reporting system that is electronically available to stakeholders. The lead agency, along with partner organizations, prepares and disseminates regular annual reports on the status of injury prevention and trauma care in State, regional, or local areas. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 306. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area.

Indicator	Scoring	Status
306.2: The trauma system is active within its jurisdiction with the evaluation of community-based activities and injury prevention and response programs.	<ol style="list-style-type: none"> 1. There is no active participation by the trauma system in the evaluation of community-based activities and injury prevention and response programs. 2. There is some activity by the trauma system in the evaluation of community-based activities and injury prevention and response programs. 3. The trauma system evaluates community-based activities and injury prevention and response programs. 4. The trauma system is an active participant in community activities and in injury prevention and response programs, including the evaluation of program effectiveness. 5. The trauma system has integrated community-based activities and injury prevention and response programs with similar efforts within the community. Outreach efforts are well coordinated and duplication of effort is avoided. Ongoing evaluation is routine, and data are used to make program improvements. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 306. The lead agency ensures that the trauma system demonstrates prevention and medical outreach activities within its defined service area.

Indicator	Scoring	Status
<p>306.3: The effect or impact of outreach programs (both medical community training/support and prevention activities) is evaluated as part of a system performance improvement process.</p> <p><i>ACS Recommendation</i> <i>Strengthen the Virginia trauma center designation criteria specific to injury prevention requirements.</i></p> <p><i>Require Level I trauma centers to have a dedicated full or part-time injury prevention position that is not the trauma program manager.</i></p>	<ol style="list-style-type: none"> 1. There is no effort by the lead agency to review the efforts of the trauma centers in either medical community training/support or prevention activities. 2. There is no routine evaluation of medical community training/support or prevention activities accruing within the jurisdiction. 3. Trauma centers do internal monitoring and evaluations of their efforts in medical community training/support and prevention activities. 4. The lead agency participates with trauma centers in evaluating their efforts in medical community training/support and prevention activities. The outreach programs are regularly assessed for effectiveness. 5. The lead agency and trauma centers routinely use the data both to implement outreach programs and to communicate trauma system outcomes and performance to the medical community through its annual report. Evaluation processes are institutionalized and used to enhance future outreach programs. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval
Prehospital Care Committee

Benchmarks, Indicators and Scoring

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
203.7 The trauma system plan has established clearly defined methods of integrating the trauma system plan with the EMS, emergency, and public health preparedness plans.	<ol style="list-style-type: none"> 1. There is no mention of integration between the trauma system plan and the EMS, emergency, and public health preparedness plans. 2. There is some cross-reference between plans, but defined methods of working collaboratively are not developed. 3. The written plans are integrated and there are defined methods for working collaboratively; however, implementation or practice within the geographic area has not occurred. 4. The trauma system plan has been integrated with other relevant plans. There is evidence of system integration activity. 5. The trauma system planning and operations have been fully integrated with the EMS, emergency, and public health preparedness plans. Training and exercises are conducted regularly, and the integration of the system and its plans is evident. 	<p>2017-18 Assessment Score: 1</p>

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
302.3 There is clear-cut legal authority and responsibility for the EMS system medical director including the authority to adopt protocols, to implement a performance improvement system, to restrict the practice of prehospital care providers, and to generally ensure medical appropriateness of the EMS system.	<ol style="list-style-type: none"> 1. There is no EMS system medical director. 2. There is an EMS system medical director with a written job description; however, the individual has no specific legal authority or time allocated for those tasks. 3. There is an EMS system medical director with a written job description, but with no specific legal authority. The system medical director has adopted protocols, has implemented a performance improvement program, and is generally taking steps to improve the medical appropriateness of the EMS system. 4. There is an EMS system medical director with a written job description and whose specific legal authorities and responsibilities are formally granted by law or by administrative rule. 5. There is an EMS system medical director with a written job description and whose specific legal authorities and responsibilities are formally granted by law or by administrative rule. There is written evidence that the system medical director has, consistent with the formal authority, adopted protocols, implemented a performance improvement program, is restricting the practice of prehospital care providers, and is making significant efforts to improve the medical appropriateness of the EMS system and to fully integrate EMS into the trauma care system. 	<p>2017-18 Assessment Score: 5</p>

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.4 The trauma system medical director is actively involved with the development, implementation, and ongoing evaluation of system dispatch protocols to ensure they are congruent with the trauma system design. These protocols include, but are not limited to, which resources to dispatch, for example, Advanced Life Support (ALS) versus Basic Life Support (BLS), air-ground coordination, early notification of the trauma care facility, pre-arrival instructions, and other procedures necessary to ensure resources dispatched are consistent with the needs of injured patients.</p> <p>Note: The trauma system medical director and the EMS system medical director may be the same person. However, specific responsibility for, and oversight of, the trauma system must be ensured.</p>	<ol style="list-style-type: none"> 1. There are no trauma system dispatch protocols. 2. Trauma system dispatch protocols have been adopted, but without regard to the design of the trauma system. 3. Trauma system dispatch protocols have been adopted and are not in conflict with the trauma system design, but there has been no effort to coordinate the use of protocols with the lead agency or trauma center. 4. Trauma system dispatch protocols have been developed in close coordination with the trauma system medical director and are congruent with the trauma system design. 5. Trauma dispatch protocols have been developed in close coordination with the trauma system medical director and are congruent with the trauma system design. There are established procedures to involve the dispatchers and their supervisors in trauma system performance improvement and a “feedback loop” to change protocols or to update dispatcher education when appropriate. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.7 There is a universal access number for citizens to access the EMS/trauma system, with dispatch of appropriate medical resources. There is a central communication system for the EMS/trauma system to ensure field-to-facility bidirectional communications, inter-facility dialogue, and all-hazards response communications among all system participants.</p> <p>Note: In some systems with limited resources, for example, rural, the available resources are, at least initially, the “appropriate resources.”</p>	<ol style="list-style-type: none"> 1. There is no universal access number (9-1-1) for easy citizen access to the EMS/trauma system and no coordinated communication system for triage, treatment, and transport of trauma patients for either single or multiple patient encounters. 2. There is a universal access number (9-1-1) for quick citizen access to care. However, there is no coordinated communication system within a jurisdiction to allow for communications to occur among system participants either routinely or during all-hazards events. 3. There are a universal access number (9-1-1) and a central communication system for quick citizen access to care. A communication plan for the trauma system has been completed. 4. The universal access number (9-1-1) and central communication system are integrated and communications regularly occur among dispatch, field providers, hospitals, and other system providers. The communication plan is implemented. Evaluation of the effectiveness of the communication system is done routinely, and corrective action is implemented as needed. 5. A state-of-the-art electronic communication system is available within the jurisdiction. The trauma system communication plan is integrated with other system plans. The system is also available in all-hazards responses and can be used as a quick call system and as a paging network and is linked to public health and other nontraditional partners. Evaluation of the communication system interface with the trauma system occurs routinely. 	<p>2017-18 Assessment Score: ⑤</p>

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.8 There are sufficient and well-coordinated transportation resources to ensure EMS providers arrive at the scene promptly and expeditiously transport the patient to the correct hospital by the correct transportation mode.</p>	<ol style="list-style-type: none"> 1. There is no coordination of transportation resources within a jurisdiction. Multiple ambulances or aeromedical providers, or both, can all arrive on scene unannounced. 2. There is a priority dispatch system in place that sends transportation resources to the scene. 3. There is a priority dispatch system that ensures appropriate resources arrive on scene promptly and transport patients to the hospital. A plan for transporting trauma patients from the field to the hospital has been completed. 4. There is a priority dispatch and transportation system that ensures appropriate system resources for prompt transport of trauma patients to trauma centers. A trauma transportation plan has been implemented. System issues are evaluated, and corrective plans are implemented as needed. 5. The transportation system has a priority dispatch system; it regularly assesses its ability to get the right resources to the scene and to transport patients by using the correct mode of transportation. The transportation system is part of the overall EMS, trauma, and all-hazards response system. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.1 In cooperation with the prehospital certification and licensure authority, set guidelines for prehospital personnel for initial and ongoing trauma training including trauma-specific courses and those courses that are readily available throughout the State.</p>	<ol style="list-style-type: none"> 1. There are no trauma training guidelines for prehospital personnel as part of initial or ongoing certification or licensure. 2. Trauma training is incorporated into initial prehospital training programs following the National Highway Traffic Safety Administration (NHTSA) curricula. 3. Prehospital personnel are offered trauma training during their initial education, and specialty trauma continuing education courses are available periodically. 4. Prehospital trauma continuing education courses are regularly scheduled throughout the State. 5. Prehospital personnel receive trauma training as part of their initial certification and licensure. Routine continuing education in prehospital trauma care is provided. Such additional certifications as Basic Trauma Life Support (BTLs) and Pre-Hospital Trauma Life Support (PHTLS) are offered regularly throughout the State 	<p>2017-18 Assessment Score: ⑤</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.2 In cooperation with the prehospital certification and licensure authority, ensure that prehospital personnel who routinely provide care to trauma patients have a current trauma training certificate, for example, PHTLS, BTLs, and others, or that trauma training needs are driven by the performance improvement process.</p>	<ol style="list-style-type: none"> 1. There is no mechanism to ensure that prehospital personnel, for example, Emergency Medical Technicians (EMTs) routinely providing care to trauma patients are certified in PHTLS and BTLs or have completed other trauma training. 2. There is a requirement for EMTs routinely providing care to trauma patients to complete a certification course in trauma; however, no mechanism to ensure compliance has been instituted. 3. There is a requirement for EMTs providing care to trauma patients to complete a prehospital trauma course. Compliance with training requirements is the responsibility of the employing agency as part of the quality assurance process. 4. Requirements for EMT trauma training are provided by the trauma centers, the lead agency, or other educational training institutions. Monitoring compliance with meeting the requirement is beginning. 5. Regular EMT trauma training is conducted through a variety of venues. Other trauma training as identified through the performance improvement process is completed in cooperation with the appropriate authorities (e.g., trauma center, lead agency, and licensing body) to ensure a collectively competent prehospital workforce in issues of trauma care. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 311: The lead agency acts to protect the public welfare by enforcing various laws, rules, and regulations as they pertain to the trauma system.

Indicator	Scoring	Status
<p>311.1 The lead agency works in conjunction with the prehospital regulatory agency to ensure that prehospital care is provided by licensed agencies that are in compliance with any rules, regulations, or protocols specific to prehospital trauma delivery (e.g., taking patients to the correct facility in accordance with pre-existing destination protocols).</p> <p>Note: In many cases, the lead agency and the prehospital regulatory agency are the same entity.</p>	<ol style="list-style-type: none"> 1. There is no evidence that the lead agency and the prehospital regulatory agency work together to ensure appropriate provider agency licensure and compliance. 2. The lead agency refers complaints concerning issues of prehospital agency performance to the prehospital regulatory agency. 3. The trauma system lead agency and the prehospital regulatory agency work together to resolve complaints involving prehospital agencies that relate to trauma system performance. 4. The trauma system and the prehospital regulatory agency work together to monitor compliance of prehospital provider agencies with any rules, regulations, or protocols specific to prehospital trauma delivery. 5. The prehospital regulatory agency, working cooperatively with the lead agency, is involved in ongoing trauma system performance improvement processes and prehospital compliance with any rules, regulations, or protocols specific to prehospital trauma delivery (e.g., taking patients to the correct facility in accordance with pre-existing destination protocols). 	<p>2017-18 Assessment Score: ③</p>

For Board of Health approval
Acute Care Committee
Benchmarks, Indicators and Scoring

Benchmark 101: There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.2 There is a description of injuries within the trauma system jurisdiction including the distribution by geographic area, high-risk populations (pediatric, elder, distinct cultural/ethnic, rural, and others), incidence, prevalence, mechanism, manner, intent, mortality, contributing factors, determinants, morbidity, injury severity (including death), and patient distribution using any or all the following: vital statistics, emergency department (ED) data, EMS data, hospital discharge data, State police data (those from law enforcement agencies), medical examiner data, trauma registry, and other data sources. the description is updated at regular intervals.	<ol style="list-style-type: none"> 1. There is no written description of injuries within the trauma system jurisdiction. 2. One or more population-based data sources (e.g., vital statistics and medical examiner data) describe injury within the jurisdiction, but clinical data sources are not used. 3. One or more population-based data sources and one or more clinical data sources are used to describe injury within the jurisdiction. 4. Multiple population-based and clinical data sources are used to describe injury within the jurisdiction, and the description is systematically updated at regular intervals. 5. Multiple population-based and clinical data sources (e.g., trauma registry, ED data, and others) are electronically linked and used to describe injury within the jurisdiction. 	2017-18 Assessment Score: ④

Benchmark 101: There is a thorough description of the epidemiology of injury in the system jurisdiction using both population-based data and clinical databases.

Indicator	Scoring	Status
101.3 There is a comparison of injury mortality using local, regional, statewide, and national data.	<ol style="list-style-type: none"> 1. There is no written comparison of injury mortality using local, regional, statewide, and national data. 2. There is a written descriptive comparison of at least the leading cause of injury death using local, regional, and statewide data. 3. There is a written descriptive, graphic, and tabular comparison of the leading cause of injury death using local, regional, statewide, and national data. 4. There is a written descriptive, graphic, and tabular comparison of the top three leading causes of injury death using local, regional, statewide, and national data. 5. There is a written descriptive, graphic, and tabular comparison of the top ten leading causes of injury death using local, regional, statewide, and national data. 	2017-18 Assessment Score: ①

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
302.9 There is a procedure for communications among medical facilities when arranging for interfacility transfers including contingencies for radio or telephone system failure.	<ol style="list-style-type: none"> 1. There are no specific communication plans or procedures to ensure communications among medical facilities when arranging for interfacility patient transfers. 2. Interfacility communication procedures are generally included in the patient transfer protocols for each medical facility, but there is no system-wide procedure. 3. There are uniform, system-wide procedures to facilitate communications among medical facilities when arranging for interfacility patient transfers, but there are no redundant procedures in the event of power or other communication system failures. 4. There are uniform, system-wide procedures for communications among facilities when arranging for interfacility patient transfers, and there are redundant procedures in the event of power or other communication system failures. 5. There are uniform, system-wide procedures for communications among facilities when arranging for interfacility patient transfers. There are redundant procedures in the event of power or other communication system failures. The effectiveness of these procedures is regularly reviewed and changes made, if necessary, during the performance improvement process. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 303: Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.

Indicator	Scoring	Status
303.2 The trauma system lead agency should ensure that the number, levels, and distribution of trauma centers required to meet system demand are available.	<ol style="list-style-type: none"> 1. There is no trauma system plan to identify the number, levels, and distribution of trauma centers required to meet system demand. 2. There is a trauma system plan, but it does not identify the number, levels, or distribution of trauma centers needed for the jurisdiction served. 3. There is a trauma system plan that identifies the number, levels, and distribution of trauma centers needed for the jurisdiction. The plan, however, is not based on available data. 4. There is a trauma system plan that identifies the number and levels of trauma centers needed based on actual available data. However, this plan is not used to make decisions about trauma facility designations. 5. There is a trauma system plan that identifies the number and levels of trauma centers based on needs identified through the needs assessment process. The plan is used to make decisions about trauma center designations and should account for facility resources and their geographic distribution, population densities, injured patient volumes, and transportation resource capabilities and times. The plan is reviewed and revised periodically. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 303: Acute care facilities are integrated into a resource-efficient, inclusive network that meets required standards and that provides optimal care for all injured patients.

Indicator	Scoring	Status
303.4 When injured patients arrive at a medical facility that cannot provide the appropriate level of definitive care, there is an organized and regularly monitored system to ensure the patients are expeditiously transferred to the appropriate, system-defined trauma facility.	<ol style="list-style-type: none"> 1. There is no system to regularly review the conformity of interfacility transfers within the trauma system according to pre-established procedures. 2. There is a fragmented system, usually event based, to monitor the interfacility transfer of trauma patients. 3. The system for monitoring interfacility transfers is new, the procedures are in place, but training has yet to occur. 4. There is an organized system of monitoring interfacility transfers within the trauma system. 5. The monitoring of interfacility transfers of trauma patients has been integrated into the overall program of system performance improvement. As the system identifies issues for correction, a plan of action is implemented. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 307: To maintain its State, regional, or local designation, each hospital will continually work to improve the trauma care as measured by patient outcomes.

Indicator	Scoring	Status
307.1 The trauma system engages in regular evaluation of all licensed acute care facilities that provide trauma care to trauma patients and designated trauma hospitals. Such evaluation involves independent external reviews.	<ol style="list-style-type: none"> 1. There is no ongoing mechanism for the trauma system to assess or evaluate the quality of trauma care delivered by all licensed acute care facilities that provide trauma care to trauma patients and designated trauma hospitals. 2. There is a mechanism for the trauma system to evaluate trauma care services in designated trauma hospitals through internal performance improvement processes. 3. There is a mechanism to evaluate trauma care services across the entire trauma care system through performance improvement processes. 4. Review of trauma care quality is both internal (through routine monitoring and evaluation) and external (through independent review during redesignation or reverification of trauma centers). 5. Quality of trauma care is ensured through both internal and external methods. Internal review is regular, and participation is routine for trauma stakeholders. External independent review teams provide further assurance of quality trauma care within all licensed acute care and trauma facilities treating trauma patients. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
310.3 As part of the established standards, set appropriate levels of trauma training for nursing personnel who routinely care for trauma patients in acute care facilities.	<ol style="list-style-type: none"> 1. There are no trauma training standards for nursing personnel who routinely care for trauma patients in acute care facilities, for example, Advanced Trauma Care for Nurses (ATCN), Trauma Nursing Core Course (TNCC), Advanced Trauma Life Support (ATLS), or any national or State-recognized trauma nurse verification course. 2. There are trauma training standards for nursing personnel but no requirement for them to attend courses or to achieve certifications. 3. There are trauma training standards for nursing personnel written into the trauma plan. 4. There are trauma training standards (and associated rules/regulations) for nursing personnel written into the trauma plan, and nurses who care for trauma patients attend trauma training courses. 5. Nursing personnel working in acute care facilities that see trauma patients receive initial and ongoing trauma training, including updates in trauma care, continuing education, and trauma nurse certifications, as appropriate. Outcome data are monitored for performance improvement and subsequent training opportunities. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
310.4 Ensure that appropriate, approved trauma training courses are provided for nursing personnel on a regular basis.	<ol style="list-style-type: none"> 1. There is no mechanism to provide appropriate, approved trauma training courses for nursing personnel throughout the jurisdiction. 2. There is a process to provide appropriate, approved trauma training courses for nursing personnel, but courses are sporadic and uncoordinated with needs. 3. There are appropriate, approved trauma training courses for nursing personnel throughout the jurisdiction. 4. Appropriate trauma training courses for nursing personnel have been approved and are provided regularly. There are initial trauma courses and opportunities for special courses as needed. 5. Appropriate trauma training courses for nursing personnel have been approved and are provided regularly throughout the jurisdiction and within the trauma centers. Courses are open to nurses from any facility that treats trauma patients and are matched to needs identified in the performance improvement process. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.5 In cooperation with the nursing licensure authority, ensure that all nursing personnel who routinely provide care to trauma patients have a current trauma training certificate (e.g., ATCN, TNCC, or any national or State trauma nurse verification course). As an alternative after initial trauma course completion, training can be driven by the performance improvement process.</p>	<ol style="list-style-type: none"> 1. There is no mechanism to ensure that nurses providing care to trauma patients are certified in an ATCN, TNCC, or any national or State trauma nurse verification course. 2. There is a requirement for nurse verification in trauma; however, no mechanism to ensure compliance has been instituted. 3. There is a requirement for nurse verification in trauma for nursing personnel who routinely provide care to trauma patients. Compliance with training requirements is the responsibility of the trauma center as part of the quality assurance process. 4. Requirements for nurse verification in trauma are provided by the trauma centers and the lead agency. Monitoring compliance with meeting the requirement is beginning. 5. Courses for nurse verification in trauma are conducted. Other trauma training as identified through the performance improvement process is completed in cooperation with the appropriate authorities (e.g., trauma center, lead agency, or licensing body). Compliance is documented and forwarded to the appropriate oversight body to ensure a collectively competent nursing workforce in issues of trauma care. 	<p>2017-18 Assessment Score: ③</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.6 As part of the established standards, set appropriate levels of trauma training for physicians who routinely care for trauma patients in acute care facilities.</p>	<ol style="list-style-type: none"> 1. There are no trauma training standards for physicians who routinely care for trauma patients in acute care facilities. 2. There are physician trauma training standards but no mechanism to ensure course attendance or successful completion. 3. There are physician trauma training standards written into the trauma plan. 4. There are physician trauma training standards written into the trauma plan, and physicians who care for trauma patients participate in trauma training. 5. Physicians working in acute care facilities that see trauma patients receive initial and ongoing trauma training, including updates in trauma care, continuing education, and certifications, as appropriate. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.7 Ensure that appropriate, approved trauma training courses are provided for physicians on a regular basis.</p>	<ol style="list-style-type: none"> 1. There is no mechanism to approve or provide appropriate trauma training courses for physicians throughout the jurisdiction. 2. There is a process to provide appropriate, approved trauma training courses for physicians, but courses are sporadic and uncoordinated with needs. 3. There are appropriate, approved trauma training courses provided regularly for physicians. 4. Trauma courses appropriate for physicians have been approved and are provided regularly. There are initial trauma courses and opportunities for special courses as needed. 5. Trauma courses for physicians are provided regularly throughout the jurisdiction and within the trauma centers. Courses are open to physicians from any facility that treats trauma patients and are matched to needs identified in the performance improvement process. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
310.8 In cooperation with the physician licensure authority, ensure that physicians who routinely provide care to trauma patients have a current trauma training certificate of completion, for example, Advanced Trauma Life Support (ATLS) and others. Alternatively, physicians may maintain trauma competence through continuing medical education programs after initial ATLS completion.	<ol style="list-style-type: none"> 1. There is no mechanism to ensure that physicians who routinely provide care to trauma patients are certified in ATLS. 2. There is a requirement for ATLS for physicians who provide trauma care; however, no mechanism to ensure compliance has been instituted. 3. There is a requirement for ATLS for physicians who provide trauma care. Compliance with trauma course completion is the responsibility of the trauma center as part of the quality assurance process. 4. Requirements for ATLS and other trauma training for physicians are provided by the trauma centers and the lead agency. Monitoring compliance with meeting the requirements is beginning. 5. Regular ATLS, and other trauma training as identified through the performance improvement process, is completed in cooperation with the appropriate authorities (e.g., trauma center, lead agency, or licensing body) to ensure a collectively competent physician workforce in issues of trauma care. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
310.9 Conduct at least one multidisciplinary trauma conference annually that encourages system and team approaches to trauma care.	<ol style="list-style-type: none"> 1. There are no multidisciplinary trauma conferences conducted within geographic boundaries of the trauma system. 2. There are sporadic multidisciplinary trauma conferences conducted. 3. Multidisciplinary trauma conferences are conducted occasionally, and attendance by trauma practitioners is monitored and reviewed. 4. Multidisciplinary trauma conferences are conducted at least annually. 5. Multidisciplinary (EMS, physicians, nurses, physiatrists, policy makers, consumers, and others) trauma conferences are conducted regularly; new findings from quality assurance and performance improvement processes are shared; and the conferences are open to all practitioners within the system. Regular attendance is required. 	<p>2017-18 Assessment Score: ②</p>

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
310.10 As new protocols and treatment approaches are instituted within the system, structured mechanisms are in place to inform all personnel in those changes in a timely manner.	<ol style="list-style-type: none"> 1. There is no structured mechanism to inform or educate personnel in new protocols or treatment approaches within the jurisdiction. 2. A structured mechanism is in place to inform or educate personnel in new protocols or treatment approaches, but it has not been tried or tested. 3. A structured mechanism is in place to inform personnel in new protocols or treatment approaches as changes in the system are identified. 4. A structured mechanism is in place to educate personnel in new protocols and treatment approaches. 5. A structured mechanism exists to educate personnel in new protocols and treatment approaches in a timely manner, and there is a method to monitor compliance with new procedures as they are instituted. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 310: The lead trauma authority ensures a competent workforce.

Indicator	Scoring	Status
<p>310.12 There are mechanisms in place within agency and institutional performance improvement processes to identify and correct deficiencies in trauma care practice patterns of individual practitioners (e.g., EMTs, paramedics, nurses, physicians, and others) within the trauma system.</p>	<ol style="list-style-type: none"> 1. There is no mechanism in place to routinely assess the deficiencies in trauma care practice patterns of individual practitioners (e.g., EMTs, paramedics, nurses, physicians, and others) within the trauma system. 2. The trauma system has begun a process to evaluate deficiencies in trauma care practice patterns of individual practitioners. 3. A mechanism is in place to monitor and report on deficiencies in practice patterns of individual practitioners within the trauma system. The process is evolving as part of the quality assurance and performance improvement processes. 4. There is a well-defined process to assess care provided by practitioners within the trauma system. The quality assurance and performance improvement processes identify deficiencies, and corrective action plans are instituted. 5. Practice patterns of individual practitioners performing outside the standards of care are routinely assessed by the trauma centers and the local, regional, or State lead agency. Corrective actions (training, additional education, and disciplinary), as appropriate, are instituted, and trends are monitored and reported to the lead agency or other licensing agency. 	<p>2017-18 Assessment Score: ②</p>

For Board of Health approval
Post-Acute Care Committee
Benchmarks, Indicators and Scoring

Benchmark 308: The lead agency ensures that adequate rehabilitation facilities have been integrated into the trauma system and that these resources are made available to all populations requiring them.

Indicator	Scoring	Status
308.1 The lead agency has incorporated, within the trauma system plan and the trauma center standards, requirements for rehabilitation services including interfacility transfer of trauma patients to rehabilitation centers.	<ol style="list-style-type: none"> 1. There are no written standards or plans for the integration of rehabilitation services with the trauma system or with trauma centers. 2. The trauma system plan has incorporated the use of rehabilitation services, but the use of those facilities for trauma patients has not been fully realized. 3. The trauma system plan has incorporated requirements for rehabilitation services. The trauma centers routinely use the rehabilitation expertise although written agreements do not exist. 4. The trauma system plan incorporates rehabilitation services throughout the continuum of care. Trauma centers have actively included rehabilitation services and their programs in trauma patient care plans. 5. There is evidence to show a well-integrated program of rehabilitation is available for all trauma patients. Rehabilitation programs are included in the trauma system plan, and the trauma centers work closely with rehabilitation centers and services to ensure quality outcomes for trauma patients. 	2017-18 Assessment Score: ①

Benchmark 308: The lead agency ensures that adequate rehabilitation facilities have been integrated into the trauma system and that these resources are made available to all populations requiring them.

Indicator	Scoring	Status
308.2 Rehabilitation centers and out-patient rehabilitation services provide data on trauma patients to the central trauma system registry that include final disposition, functional outcome, and rehabilitation costs and also participate in performance improvement processes.	<ol style="list-style-type: none"> 1. There is no requirement for the rehabilitation centers or outpatient rehabilitation services to contribute data on trauma patient outcomes. 2. Rehabilitation centers and out-patient rehabilitation services are integrated into the trauma plan, but there is no requirement for them to submit data on trauma patients to the central trauma system registry. 3. Rehabilitation centers and out-patient rehabilitation services are integrated into the trauma plan, and rehabilitation care is begun early in the patient’s treatment plan within the acute care hospital. Data submission to the central trauma system registry is yet to be realized. 4. Some trauma centers and rehabilitation facilities and outpatient rehabilitation services have close links, and integration of services is routine. Data sharing between individual trauma centers and rehabilitation centers and services is accomplished, and some integration with the central trauma system registry is ongoing. Rehabilitation personnel participate in trauma system performance improvement processes. 5. The trauma plan integrates rehabilitation centers and outpatient rehabilitation services. Trauma centers integrate rehabilitation care early in the patient’s treatment plan. Rehabilitation data, including final disposition, functional outcome, and rehabilitation costs, are collected. These data are routinely submitted to trauma centers and to the central trauma system registry for inclusion in system evaluation reports. Rehabilitation personnel are fully integrated into trauma system performance improvement processes. 	2017-18 Assessment Score: ①

Emergency Preparedness and Response Committee
Benchmarks, Indicators and Scoring

Benchmark 104: An assessment of the trauma system’s emergency preparedness has been completed including coordination with the public health, EMS system, and the emergency management agency.

Indicator	Scoring	Status
<p>104.1 There is a resource assessment of the trauma system’s ability to expand its capacity to respond to mass casualty incidents (MCIs) in an all-hazards approach.</p>	<ol style="list-style-type: none"> 1. There is no resource assessment of the trauma system’s ability to expand its capacity to respond to mass casualty incidents for in an all-hazards approach. 2. An assessment of the ability of some components of the trauma care system to respond to a mass casualty incident has been included in all-hazards planning. 3. An assessment of the ability of all components of the trauma system to respond to a mass casualty incident has been conducted on a jurisdiction-wide basis. 4. A written inventory of system-wide MCI capacity has been completed and includes: medical reserve personnel, facility surge capacity, additional equipment resources and caches, communication interoperability, overall management structure such as NIMS (National Incident Management System), and SEMS (Standardized Emergency Management System). 5. The written inventory of trauma system-wide MCI capacity has been shared with, and incorporated into, broader community-wide and statewide planning efforts for all-hazards responses. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 104: An assessment of the trauma system’s emergency preparedness has been completed including coordination with the public health, EMS system, and the emergency management agency.

Indicator	Scoring	Status
<p>104.2 There has been a consultation by external experts to assist in identifying current status and needs of the trauma system to be able to respond to mass casualty incidents.</p>	<ol style="list-style-type: none"> 1. No external examination of the trauma system’s performance or ability to respond within the all-hazards response system has occurred at the State, regional, or local level. 2. Individual trauma centers have undergone outside consultation during tabletop and simulated incident drills. 3. In addition to the involvement of at least some individual trauma centers, at least one other component of the trauma system has been analyzed by external reviewers, for example, prehospital, communications, information systems, and others. 4. Preparations are under way for a formal system-wide review of the trauma system response to a mass casualty incident (to occur within the next 6 months). 5. An outside group of all-hazards response “experts” has conducted a formal external assessment and has made specific recommendations to the system. 	<p>2017-18 Assessment Score: ④</p>

For Board of Health approval

Benchmark 104: An assessment of the trauma system’s emergency preparedness has been completed including coordination with the public health, EMS system, and the emergency management agency.

Indicator	Scoring	Status
<p>104.3 The trauma system has completed a gap analysis based on the resource assessment for trauma emergency preparedness.</p>	<ol style="list-style-type: none"> 1. There are no resource standards on which to base a gap analysis. 2. The statewide trauma advisory committee, in conjunction with appropriate incident management personnel, has begun to develop statewide MCI response resource standards. 3. State resource standards for trauma system response during a mass casualty incident have been developed and approved. 4. Some components (e.g., prehospital) of the trauma system, or facilities within it, have completed a gap analysis based on the adopted standards. 5. A system-wide trauma system MCI resource gap analysis has been completed for the jurisdiction based on the system resource standards adopted. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 203: The State lead agency has a comprehensive written trauma system plan based on national guidelines. The plan integrates the trauma system with EMS, public health, emergency preparedness, and incident management. The written trauma system plan is developed in collaboration with community partners and stakeholders.

Indicator	Scoring	Status
<p>203.6 The trauma system plan has established clearly defined methods of integrating with emergency preparedness plans (all hazards).</p>	<ol style="list-style-type: none"> 1. There is no trauma system plan and no integration between trauma and emergency preparedness. 2. There is an established trauma system plan; but it is silent on emergency integration, and no evidence is present to demonstrate integrated incident management and trauma systems. 3. The trauma system plan addresses the interaction of the lead agency of the trauma system and emergency preparedness service system. Close coordination and clearly defined goals and objectives are in process. 4. The trauma system plan addresses coordination between the lead agency of the trauma system and the lead agency for emergency preparedness. Plans are integrated, and working collaboration exists and is demonstrated. Routine working drills and training exercises are incorporated into operational plans. 5. The trauma system plan addresses the lead agency coordination between EMS and emergency preparedness. Plans are well integrated, and routine simulated incident drills that are conducted use an all-hazards approach. Results from drills and live responses are used to further improve the plans and processes. 	<p>2017-18 Assessment Score: ①</p>

For Board of Health approval

Benchmark 204: Sufficient resources, including those both financial and infrastructure related, support system planning, implementation, and maintenance.

Indicator	Scoring	Status
<p>204.5 The trauma system plan includes identification of additional resources (both manpower and equipment) necessary to respond to mass casualty incidents.</p>	<ol style="list-style-type: none"> 1. The trauma system plan does not include the identification of additional resources necessary to respond to mass casualty incidents. 2. The trauma system plan addresses mass casualty incidents but has not identified additional resources. 3. The trauma system plan identifies resources, but it is unclear how the needs are going to be met. 4. The trauma system plan identifies both equipment and manpower resources available currently and additional resources needed; it also defines a process for securing and ensuring that equipment and human resources are available. 5. There is a well-drafted and rehearsed trauma system plan, along with sufficient caches of equipment and backup personnel, that ensures the rapid deployment of additional resources during mass casualty incidents. 	<p>2017-18 Assessment Score: ①</p>

Benchmark 208: The trauma, public health, and emergency preparedness systems are closely linked.

Indicator	Scoring	Status
<p>208.2 The incident management and trauma systems have formal established linkages for system integration and operational management.</p>	<ol style="list-style-type: none"> 1. There are no formal established linkages for system integration or operational management between the incident management and trauma systems. 2. There are limited linkages or interfaces between the incident management and trauma systems specific to mass casualties. 3. Plans are in place for both incident management and trauma system linkage. Integration is beginning, and cooperation within the multidisciplinary groups is occurring. Draft policies are being reviewed, and operational management strategies are being aligned. 4. There is evidence of program linkages between the incident management and trauma systems. Operational management guidelines exist and are routinely evaluated and tested. 5. Strong program linkages and interfaces are present. The incident management and trauma systems are well integrated, and operational procedures have been implemented, tested, and evaluated. System participants meet regularly and are familiar with the operational plans of both areas. Data from the trauma system and from the incident management system are shared. 	<p>2017-18 Assessment Score: ⑤</p>

For Board of Health approval

Benchmark 302: The trauma system is supported by an EMS system that includes communications, medical oversight, prehospital triage, and transportation; the trauma system, EMS system, and public health agency are well integrated.

Indicator	Scoring	Status
<p>302.10 There are established procedures for EMS and trauma system communications in an all-hazards or major EMS incident that are effectively coordinated with the overall all-hazards response plan for the jurisdiction.</p>	<ol style="list-style-type: none"> 1. There are no written procedures for EMS and trauma system communications in the event of an all-hazards incident. 2. Local EMS systems have written procedures for EMS communications in the event of an all-hazards or major EMS incident. However, there is no coordination among the local jurisdictions. 3. There are statewide or regional EMS communication procedures in the event of an all-hazards or major EMS incident. These plans do not involve other jurisdictions and are not coordinated with the overall all-hazards response plan and incident management system. 4. There are statewide or regional EMS communication procedures in the event of an all-hazards or major EMS incident that are coordinated with other jurisdictions, with the overall all-hazards response plan, and with the incident management system. 5. There are statewide or regional EMS communication procedures in the event of an all-hazards or major EMS incident that are coordinated with other jurisdictions, with the overall all-hazards response plan, and with the incident management system. There are one or more communication system redundancies. These procedures are regularly tested in simulated incident drills, and changes are made in the procedures, when necessary, based on the results of these drills. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 305: The lead agency ensures that its trauma system plan is integrated with, and complementary to, the comprehensive mass casualty plan for both natural and man-made incidents, including an all-hazards approach to planning and operations.

Indicator	Scoring	Status
<p>305.1 The EMS, the trauma system, and the all-hazards medical response system have operational trauma and all-hazards response plans and have established an ongoing cooperative working relationship to ensure trauma system readiness to all-hazards events</p>	<ol style="list-style-type: none"> 1. There is no system for integration between the EMS, the trauma system, and the all-hazards response system. 2. There have been some discussions between the EMS, the trauma system, and the all-hazards medical response system, but no formal plans have been developed. 3. Formal plans for the EMS, the trauma system, and the all-hazards medical response systems integration are in development and have started the approval process. Working relationships have formed and cooperation is evident. 4. There are plans in place to ensure that the EMS, the trauma system, and the all-hazards medical response system are integrated and operational. All-hazards exercises and simulated incident drills have the cooperation and participation of the trauma system. 5. The EMS, the trauma system, and all-hazards response plans are integrated and operational. Routine working relationships are present with cooperation and sharing of information to improve trauma system readiness for all-hazards responses. 	<p>2017-18 Assessment Score: ④</p>

For Board of Health approval

Benchmark 305: The lead agency ensures that its trauma system plan is integrated with, and complementary to, the comprehensive mass casualty plan for both natural and man-made incidents, including an all-hazards approach to planning and operations.

Indicator	Scoring	Status
<p>305.2 All-hazards events routinely include situations involving natural (e.g., earthquake), unintentional (e.g., school bus crash), and intentional (e.g., terrorist explosion) trauma-producing events that test expanded response capabilities and surge capacity of the trauma systems.</p>	<ol style="list-style-type: none"> 1. All-hazards training is not a routine part of the trauma system. 2. Training in response to all hazards is solely the responsibility of the EMS and of emergency management agencies. Trauma response has not been integrated into the system. 3. All-hazards exercises are conducted routinely and include both trauma and EMS response capabilities. 4. The trauma, EMS, and public health stakeholders have begun exercises in an all-hazards approach to mass casualty incidents. 5. Exercises and training in all-hazards responses including testing of facility/clinic surge capacity are regularly conducted with trauma, EMS, and public health stakeholders. Debriefing sessions occur after each drill or event. 	<p>2017-18 Assessment Score: ④</p>

Benchmark 305: The lead agency ensures that its trauma system plan is integrated with, and complementary to, the comprehensive mass casualty plan for both natural and man-made incidents, including an all-hazards approach to planning and operations.

Indicator	Scoring	Status
<p>305.3 The trauma system, through the lead agency, has access to additional equipment, materials, and personnel for large-scale traumatic events. Note: The lead agency will work with other appropriate national, State, regional, and local agencies to secure these additional resources.</p>	<ol style="list-style-type: none"> 1. There is no surge capacity (prehospital, hospital, clinic, or coroner) built into the system for either smaller multipatient events or mass casualty incidents. 2. The trauma system has begun to identify additional equipment, materials, and personnel needed to respond to all-hazards events in light of new threats and emergencies. 3. The lead agency, working with the trauma stakeholders, has in place additional equipment and materials for mass casualty incidents. A process to utilize additional personnel resources is in development. Testing of newly acquired equipment, material, and personnel resources has not yet been completed. 4. The lead agency, in conjunction with the trauma stakeholders, has begun to test a method of deploying additional equipment, materials, and personnel during all-hazards events. 5. The lead agency has acquired additional equipment and materials for both the prehospital and hospital response to all-hazards events. Deployment issues have been resolved. A mechanism to share personnel resources has been developed and tested in both the prehospital and hospital setting (e.g., mutual aid, precredentialing of practitioners, and rapid assignment of privileges). The system routinely tests its capabilities in this area. 	<p>2017-18 Assessment Score: ④</p>

Appendix A – EMS Advisory Board members, 2016-2018

Michel B. Aboutanos, MD, MPH, FACS
The Honorable Sherrin Cherrell Alsop
Byron F. Andrews, III
Samuel T. Bartle, MD
Dreema Chandler
Gary P. Critzer - Chair
Valeta C. Daniels
Richard H. Decker, III
Lisa M. Dodd, DO
Stephen J. Elliott
Jason D. Ferguson
R. Jason Ferguson
William B. Ferguson
Joan F. Foster
S. Denene Hannon
Jonathan D. Henschel
David Hoback
Sudha Jayaraman, MD, MSc
Jason R. Jenkins
Lori L. Knowles
John Korman
Cheryl Lawson, MD, FACEP
Julia Marsden
Marilyn K. McLeod, MD
Genemarie McGee - Vice-Chair
Corina Nuckols
Christopher L. Parker, BSN, RN, CEN CPEN, NRP, CCEMTP
Ronald Passmore, NRP
Anita Perry
Jethro H. Piland
Valerie Quick
Jose V. Salazar, MPH, NREMT-P
Matthew Tatum
Charlotte Tyson
Daniel C. Wildman

Appendix B – Trauma System Management and Oversight Committee members, 2016-2018

Dr. Michel Aboutanos - Chair
Emory Altizer, RN
Sid Bingley
Dr. Forest Calland
Dr. Michael Feldman
Dr. Maggie Griffen
Dr. Scott Hickey
Melissa Hall
Anne Mills Hunt
Lou Ann Miller, RN
Dr. T. J. Novosel
Dr. Shawn Safford
Dr. Keith Stephenson
Ms. Susan Watkins
Lisa Wells, RN
Andi Wright, RN

For Board of Health approval

Appendix C – Trauma System Plan Contributors

**The following individuals contributed to the creation of the Commonwealth of Virginia Trauma System Plan.
Their knowledge, time, effort and their vision are what made this plan possible.**

Dr. Michel Aboutanos* ^A	Margaret Fields	Cassie McCallister	Shelia Spencer ^G
Emory Altizer* ^A	Dr. Michael Feldman*	Dr. Marilyn McLeod* ^E	Greg Stanford ^C
Shelly Arnold	Eddie Ferguson	Lou Ann Miller*	Sherry Stanley ^E
Jamie Ayoub	Angela Pier Ferguson ^F	Corri Miller-Hobbs ^B	Joanie Steil ^B
Dr. Sam Bartle	Dr. Elizabeth Franco ^G	Anne Mills-Hunt* ^A	Dr. Keith Stephenson* ^A
Dr. Carol Bernier ^E	Dan Freeman	Valeria Mitchell* ^C	Wanda Street*
Chad Blosser	Shirley Gibson	Patti Montes	Lenice Sudds*
Sid Bingley* ^E	Dr. Terrel Goode ^F	Dr. Daniel Munn ^F	Brad Taylor ^E
Heather Board ^B	Dr. Maggie Griffen*	Jennifer Mund	Dallas Taylor ^E
Stephanie Boese ^D	Kelly Guilford ^C	Melinda Myers ^{C, G}	Tanya Trevilian ^F
Lisa Bono ^C	Dr. Theresa Guins ^E	Dr. T.J. Novosel* ^E	Dr. Chris Turnbull ^E
Beth Broering ^C	Amy Gulick ^B	Alan Ottarson ^C	Amanda Turner
April Brown	Melissa Hall* ^B	Carrie Papajohn ^G	Will Wagnon
Gary Brown*	Dr. Richard Hamrick	Amy Paratore	Diamond Walton ^B
Kelly Brown	Mike Harmon	Ron Passmore ^E	Linda Watkins ^B
Kathy Butler ^D	Dr. Jeffrey Haynes ^E	Robin Pearce* ^C	Susan Watkins
Dr. Forest Calland* ^C	Dr. Scott Hickey*	Wayne Perry ^E	Dr. Leonard Weireter
Melinda Carter ^C	Dr. John Hyslop* ^F	Catherine Peterson ^G	Lisa Wells*
Kate Challis	Scott Johnson	Dr. Peter Ploch	Dr. Tania White ^E
Dr. Bryan Collier	Jessica King	Dr. Ranjit Pullarkat	Tracey White
Cam Crittenden†	Valerie Kirby	Courtney Rapp	Allen Williamson
Dwight Crews*	Ann Kuhn	Mark Rath ^G	Forrest Winslow ^C
Gary Critzer*	Brent Lafayette	Morris Reece* ^A	Scott Winston*
Heather Davis ^F	Mark Lawrence	Adam Rochman	Lisa Wooten
Mark Day ^{C, G}	Tracey Lee ^F	Dynette Rombough	Andi Wright* ^A
Cheryl Deshaine ^G	Dr. George Lindbeck*	Kelley Rumsey ^F	Frank Yang
Sara Beth Dinwiddie ^B	Christopher Lindsay ^F	Dr. J. Thomas Ryan* ^A	Dr. Allen Yee ^E
David Edwards*	Tiffany Lord ^F	Dr. Shawn Safford*	Dr. Jeff Young ^F
Rebecca Edwards	Dr. Raymond Makhoul	Paul Sharpe* ^A	J. Yow
Tim Erskine*	Nancy Malhotra	Karen Shipman ^B	Anne Zehner* ^C
Dr. Jordan Estroff	Robin Manke ^G	R. Macon Sizemore* ^D	
Laura Evans	Jake Marshall	Dr. E. Reed Smith ^E	
Mitchell Farber	Nick Matthelsen	Susan Smith	

* Trauma System Plan Task Force member

^A Administrative Workgroup member

^B Injury Prevention Workgroup member

^C Data/Education/Research/Syst. Eval. Workgroup member

^D Post-Acute Rehabilitative Workgroup member

^E Pre-Hospital Care Workgroup member

^F Acute Definitive Care Workgroup member

^G Disaster Preparedness Workgroup member

*Office of EMS, VA Dept. of Health

Appendix D – Trauma System Plan Task Force and Task Force Workgroup Meetings

Task Force meetings

February 11, 2016

Courtyard by Marriott, 10077 Brook Rd., Glen Allen, VA 23059

March 3, 2016

The Perimeter Center, 9960 Mayland Dr., Henrico, VA 23233

June 2, 2016

Hampton Inn & Suites, 700 E. Main St., Richmond, VA 23219

September 1, 2016

Hampton Inn & Suites, 700 E. Main St., Richmond, VA 23219

December 1, 2016

Hampton Inn & Suites, 700 E. Main St., Richmond, VA 23219

March 2, 2017

Virginia Public Safety Training Center, 7093 Broad Neck Rd., Hanover, VA 23069

June 1, 2017

Virginia Public Safety Training Center, 7093 Broad Neck Rd., Hanover, VA 23069

September 7, 2017

Virginia Public Safety Training Center, 7093 Broad Neck Rd., Hanover, VA 23069

December 7, 2017

Hampton Inn & Suites, 700 E. Main St., Richmond, VA 23219

March 1, 2018

The Perimeter Center, 9960 Mayland Dr., Henrico, VA 23233

Workgroup meetings

The Task Force Workgroups held a total of 99 meetings between March 2016 and March 2018:

Administrative: 12 meetings

Injury Prevention: 15 meetings

Data/Education/Research/System Evaluation: 11 meetings

Post-Acute Rehabilitative: 18 meetings

Pre-Hospital Care: 19 meetings

Acute Definitive Care: 14 meetings

Disaster Preparedness: 10 meetings

Appendix E – American College of Surgeons Trauma System Consultation, September 1-4, 2015
Participant List

Consultation Team Members

Robert J. Winchell, MD, FACS, Surgeon, New York, NY – **Team Leader**
Alasdair K. T. Conn, MD, FACS, Surgeon, Boston, MA
Heidi A. Hotz, RN, Trauma Program Manager, Los Angeles, CA
Kathy J. Rinnert, MPH, FACEP, ED Physician, Dallas, TX
Brian R. Moore, MD, FAAP, Pediatric Specialty Consultant, Albuquerque, NM
Drexal Pratt, State EMS Director, Raleigh, NC
Jane Ball, RN, DrPH, Technical Advisor TSC, Gaithersburg, MD
Nels D. Sanddal, PhD, REMT-B, ACS Staff Reviewer, Chicago, IL

Trauma System Consultation Participants

Name		Title	Organization
Lindley	Aberbathy	Trauma Program Manager	Johnston-Willis Hospital
Michel	Aboutanos	Chief of Acute Care Surgery/ COT Trauma Medical Director	VCU Health Systems
Marcus	Almorode	Director of Emergency Services	Rockingham Memorial Medical Center
Emory	Altizer	Trauma Program Manager	Lewis Gale Hospital Montgomery
Sheldon	Barr	VP of Emergency & Cardiovascular Services	HCO Corporate
Samuel	Bartle	Advisory Board Member/ EMS for Children Chair/ Pediatric EM Physician	VCU Health Systems
Sid	Bingley	Captain	Blacksburg Vol. Rescue Squad
Heather	Board	Office of Fam Health Svcs, Inj Viol Prev Program Admin Manager III	Virginia Department of Health
Thomas	Boro	General Surgeon	Danville Regional Medical Center
Beth	Broering	Trauma Program Manager	VCU Health Systems
Gary	Brown	Gen Admin Manager/ State EMS Director	Virginia Office of EMS
Vicki	Burton	Trauma Registrar	Mary Washington Hospital
Kathy	Butler	Trauma Program Manager	University of VA Medical Center
J. Forrest	Calland	Trauma Medical Director	University of VA Medical Center
Bryan	Collier	Trauma Medical Director/ Director of Surgical Nutrition	Carilion Roanoke Memorial Hospital
Jay	Collins	Trauma Surgeon	Sentara Norfolk General Hospital
Sonia	Cooper	Trauma Coordinator	Sentara VA Beach General Hospital
Gary	Critzer	Regional EMS Director/ EMS Advisory Board Chair	Waynesboro Dept of Emergency Management
John	DaVanzo	Rehabilitation Director	Bon Secours Maryview Medical Center
Mark	Day	Trauma Program Manager	Sentara VA Beach General Hospital
Richard	Decker	Member of ODEMSA Board of Directors	Old Dominion EMS Alliance

Todd	Dickerson	Emergency Department Director	Augusta Health
John	Duval	CEO	VCU Health Systems
David	Edwards	EMS for Children Program Manager/ Pediatric Emergency Care Coordinator	Virginia Office of EMS
Michael	Elliot	Trauma Center Administrator	Centra Health Lynchburg General Hospital
Michael	Feldman	Assistant Professor/ Burn Medical Director	VCU Health Systems
Jason	Fowlkes	Trauma Medical Director	Lewis Gale Hospital Montgomery
Carol	Gilbert	General Surgeon	Carilion Roanoke Memorial Hospital
Aaron	Glenn	Director of Nursing	Carilion Stonewall Jackson Hospital
Margaret	Griffen	Trauma Acute Care Surgeon	Inova Fairfax Hospital
Kelly	Guilford	Trauma Performance Improvement Manager	Chippenham Medical Center
Melissa	Hall	Trauma Program Manager	Mary Washington Hospital
Branden	Haushalter	CEO	Johnston-Willis Hospital
Barbara	Hawkins	Retired Nurse	n/a
Scott	Hickey	ACEP/ Advisory Board Committee/ Emergency Medical Director	Chippenham Medical Center
Marian	Hunter	Public Information Officer	Virginia Department of Health
Sudha	Jayaraman	Assistant Professor of Acute Care Surgical Services/ Advisory Board Member	VCU Health System
Elizabeth	Johnson	RN, Trauma Registrar	Southside Regional Medical Center
Donald	Kauder	Trauma Medical Director	Mary Washington Hospital
Gary	Kavit	System Medical Director, ED	Riverside Regional Medical Center
Marcia Ann	Kuhn	Medical Director of Trauma and Burns	Children's Hospital of the King's Daughters
Amanda	Lavin	Asst Attorney General, Health Services Section	Office of the Attorney General
George	Lindbeck	State EMS & Trauma Systems Medical Director	Virginia Office of EMS
Raymond	Makhoul	Trauma Medical Director	Chippenham Medical Center
Nancy	Malhotra	Director of Trauma Services	Chippenham Medical Center
Ajai	Malhotra	Former COT Chair/ Former Chair, Trauma System Oversight Committee Chief/ Division of Acute Care Surgical Services	University of Vermont
Matt	Mathias	COO	Lewis Gale Hospital Montgomery
Genemarie	McGee	CNO	Sentara Norfolk General Hospital
Marilyn	McLeod	Operational Medical Director	Lynchburg General Hospital
Tim	McManus	CEO	Chippenham Medical Center
Lou Ann	Miller	Trauma Program Manager	Riverside Regional Medical Center
Charles	Miller	Neuro Surgery	Chippenham Medical Center
Corri	Miller-Hobbs	Safe Kids Virginia Program Coordinator	Children's Hospital of Richmond at VCU

Anne	Mills	Director of Emergency Department	Danville Regional Medical Center
Valeria	Mitchell	Trauma Program Manager	Sentara Norfolk General Hospital
Sherry	Mosteller	Trauma Program Manager	Carilion New River Valley Medical Center
Daniel	Munn	Director, Trauma & Acute Care Surgery	Riverside Regional Medical Center
Melinda	Myers	Trauma Division Director	Inova Fairfax Hospital
Timothy J.	Novosel	Assistant Professor / General Surgery/ Trauma	Sentara Norfolk General Hospital
Martin	O'Grady	General And Vascular Surgeon	Sentara VA Beach General Hospital
Kelly	Parker	Hospital Preparedness Intern / Disaster	Virginia Department of Health
Christopher	Parker	RN / Paramedic	Lynchburg General Hospital/ Centra One
Robin	Pearce	Trauma Critical Care Coordinator	Virginia Office of EMS
Debra	Perina	ED Physician	University of Virginia Health System
Anita	Perry	Director of Flight Services	Wellmont One
Peter	Ploch	Trauma Medical Director, General Surgery	Lynchburg General Hospital/ Centra Health
Melissa	Porrey	Trauma Survivors Network Coordinator	Inova Fairfax Hospital
Dynette	Rombough	Corporate Vice President and President of Sentara	Sentara Northern Virginia Medical Center
John	Potter	Medical Director, Emergency Department	Winchester Medical Center
Faiqa	Qureshi	Division Director, Pediatric Emergency Medicine	Children's Hospital of the King's Daughters
Bob	Ramsey	Executive Director	Virginia College of Emergency Physicians
Robert	Rasmussen	Program Admin Manager III/ Traffic Engineering	Virginia Department of Transportation
Morris	Reece	Disaster Coordinator / Technical Advisor	Virginia Hospital and Healthcare Association/ WVEMS Regional Council
Karen	Rice	Admin & Office Specialist III	Virginia Office of EMS
Kelly	Rumsey	Nurse Clinician/ Program Manager	Children's Hospital of Richmond at VCU
Shawn	Safford	Section Chief, Pediatric Surgery	Carilion Clinic Children's Hospital
Gary	Scott	Vice President	Carilion Roanoke Memorial Hospital
Paul	Sharpe	Trauma/ Critical Care Manager	Virginia Office of EMS
Macon	Sizemore	Director of Rehabilitation Services	VCU Health Systems
Kelly	Southard	Chief/ REMS Board of Director President	Orange County Volunteer Rescue Squad
Greg	Stanford	Trauma Medical Director/ General Surgery	Winchester Medical Center
Keith	Stephenson	Trauma Medical Director/ General Surgery	Carilion New River Valley Medical Center

Adam	Stevens	Co-director for Trauma Services	Lynchburg General Hospital/ Centra Health
Eric	Stone	Associate Administrator/ VP of Clinical Operations	Riverside Regional Medical Center
Marcus	Stone	Director of Emergency Services and Business Health Services	Memorial Hospital of Martinsville
Wanda	Street	Administrative & Office Specialist II	Virginia Office of EMS
Lynn	Taylor	Curriculum Development Instructor	United Network for Organ Sharing
Dallas	Taylor	Director of Trauma Services	Lewis Gale Medical Center Salem
Robert	Teaster	Administrator for Transplant Services	University of Virginia Medical Center
Sadie	Thurman	System Director of Emergency Services	Riverside Regional Medical Center
David	Trump	Chief Deputy Commissioner for Public Health and Preparedness	Virginia Department of Health
Amanda	Turner	Trauma Coordinator	Lynchburg General Hospital/ Centra Health
Linda	Watkins	Injury Prevention Coordinator	Inova Fairfax Hospital
Leonard	Weireter	Professor of Surgery	Eastern Virginia Medical School
Lisa	Wells	Trauma Program Manager	Winchester Medical Center
Scott	Winston	Program Admin Manager III	Virginia Office of EMS
Greg	Woods	Executive Director	Southwest EMS Regional Council
Andrea	Wright	Director, Trauma Services	Carilion Roanoke Memorial Hospital
Jeffery	Young	Director, Trauma Center/ Professor of Surgery/ Chief Patient Safety Officer	University of Virginia Medical Center
Anne	Zehner	Program Admin Specialist II	Virginia Department of Health/ Office of Family Health Services

Appendix F – Commonwealth of Virginia Trauma System (COVATS) Plan Versions and Approvals

<u>Version</u>	<u>Date</u>
1.0	September 1, 2017
1.1	October 20, 2017
1.2	October 26, 2017
2.1	November 1, 2017
2.2	November 15, 2017
2.3	December 1, 2017
3.0	December 8, 2017
4.0	February 6, 2018
4.1	February 22, 2018
5.0	March 1, 2018
5.1	March 8, 2018
5.2	April 3, 2018
5.3	April 24, 2018
5.4	April 27, 2018
5.5	May 7, 2018 – Final Draft for approval
5.5.1	June 7, 2018 – Approved by Trauma System Task Force with minor modification
5.5.1	June 7, 2018 – Approved by Trauma System Oversight and Management Committee
5.5.1	August 3, 2018 – Approved by Emergency Medical Services Advisory Board



COMMONWEALTH of VIRGINIA

Department of Health

M. NORMAN OLIVER, MD, MA
STATE HEALTH COMMISSIONER

PO BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

MEMORANDUM

DATE: August 22, 2018

TO: Virginia State Board of Health

FROM: Laurie Forlano, DO, MPH
State Epidemiologist & Director, Office of Epidemiology

SUBJECT: Fast-Track Amendment to the Regulations for Disease Reporting and Control

The Virginia Department of Health (VDH) recommends that the State Board of Health approve the enclosed fast-track amendments to the Regulations for Disease Reporting and Control. The fast-track approach is being taken because the amendments are not expected to be controversial and the agency would like to promulgate these changes as quickly as possible.

The Regulations for Disease Reporting and Control specify which conditions must be reported by the clinical care community to the local health department and how such reporting must occur. The regulations also specify measures that must be taken to control the spread of these conditions. This set of amendments includes many minor modifications, which are explained in more detail in the enclosed Town Hall form and regulatory text. Specifically, the amendments make the following changes to disease reporting requirements:

- Add, remove, and update definitions to provide clarity;
- Update the timelines for laboratories to submit isolates or specimens to the state public health laboratory;
- Remove the list of isolates or specimens that must be forwarded for public health laboratory testing from 12VAC5-90-90 in this amendment because it is being added to 12VAC5-90-80 in another regulatory action;
- Remove the requirement that physicians and directors of medical care facilities submit weekly counts of cases of influenza;
- Replace reporting by using a paper-based Epi-1 form with reporting via VDH's online morbidity reporting portal;
- Add language that states if a laboratory ascertains that the reference laboratory that tests a specimen reports to VDH electronically, then those reference laboratory findings do not need to be reported by the laboratory of origin;
- Add language that clarifies that if a facility director reports on behalf of the laboratory, the laboratory is still responsible for submitting isolates or specimens for public health

testing “unless the laboratory has submitted an exemption request that has been approved by the department”, providing an opt-out provision for isolate submission;

- Remove language referencing the commissioner’s role in enforcement of isolation and quarantine because similar language has been removed from the Code of Virginia;
- Modify language to refer only to medications that are available in the United States for the treatment of ophthalmia neonatorum;
- Clarify that confirmatory testing is not required for blood lead levels that are below the CDC reference range on a screening test;
- Clarify that “dangerous microbes and pathogens” are “select agents and toxins” and limit the reporting of select agents and toxins to only an annual report and those scenarios in which such agents and toxins are released, lost, or stolen;
- Require that hospitals share any data with VDH that they supply to CDC as a result of a requirement of the Centers for Medicare and Medicaid Services and not limited to the Hospital Inpatient Quality Reporting Program of that agency.

These changes will improve VDH’s ability to detect and control conditions of public health concern that are affecting the residents of Virginia. Following approval by the Board, VDH will submit the regulatory packet to the Virginia Town Hall for expedited Executive Branch review.



townhall.virginia.gov

Fast-Track Regulation Agency Background Document

Agency name	Virginia Department of Health
Virginia Administrative Code (VAC) citation(s)	12VAC5-90
Regulation title(s)	Disease Reporting and Control
Action title	Amendment to comply with changes in public health practice
Date this document prepared	8/21/2018

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The Regulations for Disease Reporting and Control provide information about the process and procedures for reporting diseases to the Virginia Department of Health (VDH), including what diseases must be reported, who must report them and other details related to reporting and disease control. VDH is proposing an amendment to the regulations to bring them into compliance with recent changes in the field of communicable disease detection and control and to allow greater flexibility with respect to reporting requirements in light of rapidly changing laboratory technologies and the emergence of new pathogens that are of public health concern.

This amendment removes, edits, and adds definitions as necessary to reflect current public health definitions and needs; removes the requirement to report weekly counts of influenza diagnoses; modifies the timelines for laboratories to submit isolates or specimens for further public health laboratory testing to improve the viability of material available for testing; replaces reporting by use of the Epi-1 form with reporting via an online web portal. The list of isolates or specimens that must be forwarded for further public health testing has been removed from 12VAC5-90-90 in this action because it is being added to

12VAC5-90-80 in a separate exempt regulatory action. The section on select agent reporting has been modified to clarify that VDH requires an annual report and an immediate report of a loss, theft, or release. Other, minor changes are listed below under Detail of Changes.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the “Definition” section of the regulations.

No acronyms are used that are not defined in context.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

Mandate and Impetus

Please identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, petition for rulemaking, periodic review, board decision, etc.). For purposes of executive branch review, “mandate” has the same meaning as defined in Executive Order 14 (as amended, July 16, 2018), “a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part.”

As required by Virginia Code § 2.2-4012.1, please also explain why this rulemaking is expected to be noncontroversial and therefore appropriate for the fast-track process.

The impetus for this regulatory action is a board decision to bring the regulations into compliance with recent changes in the field of communicable disease detection and control, and to provide greater flexibility with respect to reporting requirements.

This regulatory action is being promulgated as a fast track because it is expected to be non-controversial. The proposed changes will assure timelier reporting of diseases while at the same time reducing the overall burden of disease reporting.

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity’s overall regulatory authority.

Chapter 2 of Title 32.1 of the Code of Virginia, §§ 32.1-12 and 32.1-35 through 32.1-73, contains mandatory language authorizing the State Board of Health to promulgate the proposed regulations. Specifically, § 32.1-35 directs the Board of Health to promulgate regulations specifying which diseases occurring in the Commonwealth are to be reportable and the method by which they are to be reported.

Further, § 32.1-42 of the Code of Virginia authorizes the Board of Health to promulgate regulations and orders to prevent a potential emergency caused by a disease dangerous to public health. The Board of Health is empowered to adopt such regulations as are necessary to carry out provisions of laws of the Commonwealth administered by the state health commissioner by § 32.1-12 of the Code of Virginia.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it's intended to solve.

The proposed changes are essential to protect the health and safety of citizens because they will improve the ability of VDH to conduct surveillance and implement disease control for conditions of public health concern. The changes will position the agency to better detect and respond to these illnesses to protect the health of the public.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of Changes" section below.

Amendments to current regulations will:

- Add, remove, and update definitions to enhance clarity;
- Specify new timelines for submission of isolates or specimens for state public health laboratory testing;
- Remove the list of isolates or specimens that must be forwarded for public health laboratory testing from 12VAC5-90-90 in this amendment because it is being added to 12VAC5-90-80 in another regulatory action;
- Remove the requirement that physicians and directors of medical care facilities submit weekly counts of cases of influenza;
- Replace reporting by way of the Epi-1 form with reporting through the VDH's online morbidity reporting portal;
- Add language that states that if a laboratory ascertains that the reference laboratory that tests a specimen reports to VDH electronically, then those reference laboratory findings do not need to be reported by the laboratory of origin;
- Add language that clarifies that if a facility director reports on behalf of the laboratory, the laboratory is still responsible for submitting isolates or specimens for public health testing "unless the laboratory has submitted an exemption request that has been approved by the department", thereby providing a process for opting out of the specimen forwarding requirement;
- Remove language referencing the commissioner's role in enforcement of isolation and quarantine because it has been removed from the Code of Virginia;
- Modify language to refer only to medications that are available in the United States for the treatment of ophthalmia neonatorum;
- Clarify that confirmatory testing is not required for blood lead levels that are below the CDC reference range on screening test;
- Limit the reporting of select agents to only an annual report and those scenarios in which such agents are released, lost, or stolen;
- Require that hospitals share with VDH any data they supply to CDC as a result of a requirement of the Centers for Medicare and Medicaid Services and not limited to the Hospital Inpatient Quality Reporting Program of that agency

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

The primary advantages to the public are the improved ability of the agency to control the risk of disease in the community based on timelier reporting through VDH's online morbidity reporting portal as well as removing the requirement to report weekly influenza counts or to report routine, non-emergency changes in select agent inventory. No disadvantages have been identified.

The primary advantage to the agency is that the proposed changes improve the focus of surveillance and ability of VDH to conduct surveillance and implement disease control for conditions of public health concern in a timely manner. The changes will position the agency to better detect and respond to these illnesses to protect the health of the public. No disadvantages have been identified.

Requirements More Restrictive than Federal

Please identify and describe any requirement of the regulatory change which is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

None of these requirements is more restrictive than federal requirements.

Agencies, Localities, and Other Entities Particularly Affected

Please identify any other state agencies, localities, or other entities particularly affected by the regulatory change. "Particularly affected" are those that are likely to bear any identified disproportionate material impact which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected

DCLS will receive isolates or specimens from other laboratories in a more timely fashion.

Localities Particularly Affected

The impact of these changes is anticipated to be the same for all localities.

Other Entities Particularly Affected

All healthcare providers and medical care facilities who are subject to these regulations would be equally impacted by these amendments.

Economic Impact

Pursuant to § 2.2-4007.04 of the Code of Virginia, please identify all specific economic impacts (costs and/or benefits), anticipated to result from the regulatory change. When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Please keep in mind that this is change versus the status quo.

Impact on State Agencies

<p><i>For your agency:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including:</p> <ul style="list-style-type: none"> a) fund source / fund detail; b) delineation of one-time versus on-going expenditures; and c) whether any costs or revenue loss can be absorbed within existing resources 	<p>Cost to the state will be related to communicating the changed requirements to the regulated community. Disease reporting requirements are usually summarized on posters and distributed to laboratories, infection preventionists, and others involved in disease reporting. The cost was \$4,500 when the regulations were last amended: (1) \$1800 to print 600 copies of the Regulations for Disease Reporting and Control, (2) \$200 to print 600 posters of Conditions Reportable by Directors of Laboratories in Virginia, and (3) \$2500 to print 20,000 posters of the Virginia Reportable Disease List. This cost will be paid by existing funds available at the time the regulations are finalized.</p>
<p><i>For other state agencies:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including a delineation of one-time versus on-going expenditures.</p>	<p>No additional expenditures anticipated by any other state agency.</p>
<p><i>For all agencies:</i> Benefits the regulatory change is designed to produce.</p>	<p>Benefits include more complete reporting of diseases of public health importance to VDH so that actions can be taken to minimize the spread of diseases in Virginia’s communities and a better understanding of the magnitude of these health problems in Virginia will be gained.</p>

Impact on Localities

<p>Projected costs, savings, fees or revenues resulting from the regulatory change.</p>	<p>The proposed changes should not incur a cost to local governments. Local health department staff are already engaged in the duties relative to emerging infections and tracking reported cases of disease.</p>
<p>Benefits the regulatory change is designed to produce.</p>	<p>Benefits include more complete reporting of diseases of public health importance to VDH so that actions can be taken to minimize the spread of diseases in Virginia’s communities and a better understanding of the magnitude of these health problems in Virginia will be gained.</p>

Impact on Other Entities

<p>Description of the individuals, businesses, or other entities likely to be affected by the regulatory change. If no other entities will be</p>	<p>The regulations pertain to physicians, laboratory directors, medical facility directors and directors of other settings where disease outbreaks may</p>
---	--

<p>affected, include a specific statement to that effect.</p>	<p>occur. The proposed amendments apply to each of those entities; however, the removal of the requirement that physicians and directors of medical care facilities submit weekly counts of cases of influenza, and limiting the reporting of select agents to only the Code-required annual report plus those scenarios in which such agents are released, lost, or stolen, and adding the requirement for morbidity reporting to be done through VDH's online morbidity reporting portal should reduce the burden of reporting among these entities.</p>
<p>Agency's best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that:</p> <ul style="list-style-type: none"> a) is independently owned and operated and; b) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million. 	<p>20,000 physicians 125 laboratories 100 hospitals 250 nursing homes</p> <p>Some of these may be small businesses.</p>
<p>All projected costs for affected individuals, businesses, or other entities resulting from the regulatory change. Please be specific and include all costs including, but not limited to:</p> <ul style="list-style-type: none"> a) projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the regulatory change; c) fees; d) purchases of equipment or services; and e) time required to comply with the requirements. 	<p>No additional costs are expected based on changes proposed to the existing regulations.</p>
<p>Benefits the regulatory change is designed to produce.</p>	<p>Benefits include more complete reporting of diseases of public health importance to VDH so that actions can be taken to minimize the spread of diseases in Virginia's communities and a better understanding of the magnitude of these health problems in Virginia will be gained.</p>

Alternatives

Please describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

In light of the clear, specific and mandatory authority of the State Board of Health to promulgate the proposed amendments to the regulations, no alternatives are available that are advisable.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

VDH has assessed the requirements of the regulatory requirements and has not identified alternative methods of achieving the goals of this regulatory action. Reporting requirements have been removed when possible, such as for weekly counts of influenza diagnoses and routine reporting of select agent transfers, and the replacement of reporting by paper with reporting by way of an electronic portal should be less cumbersome for the regulated community. Complete and timely reporting is necessary to prevent and control the spread of communicable diseases, leaving few alternatives to exempt any healthcare providers from their responsibility to report disease to VDH.

Public Participation

If an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, the agency shall: 1) file notice of the objections with the Registrar of Regulations for publication in the Virginia Register; and 2) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.

Detail of Changes

Please list all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation.

If the regulatory change will be a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory change. Delete inapplicable tables.

If the regulatory change is intended to replace an emergency regulation, please follow the instructions in the text following the three chart templates below. Please include citations to the specific section(s) of the regulation that are changing.

For changes to existing regulation(s), please use the following chart:

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
12VAC5-90-10		Definitions	<ul style="list-style-type: none"> Healthcare-associated infection (also known as nosocomial infection) –

			<p>Replaced the term “hospital” with “medical care facility” to reflect infections that may occur in hospitals or nursing homes.</p> <ul style="list-style-type: none"> • Hepatitis C, acute – Remove definition. This definition was needed when this infection was newly defined, but now the disease is better recognized and understood. • Hepatitis C, chronic – Remove definition. The infection is well understood in the regulated community so the definition is no longer needed. • Influenza A, novel virus – Modify definition to indicate that genetic reassortment of human and animal influenza viruses represent novel virus. Helps more clearly define what is meant by influenza A novel virus. • Lead, reportable levels – Remove definition. The proposed amendment requires all lead results to be reported, so the definition of a lead, reportable levels is no longer relevant. • Tubercle bacilli – Modify definition to include Mycobacterium bovis, Mycobacterium canetti, Mycobacterium microti, and Mycobacterium caprae as additional species included in the Mycobacterium tuberculosis complex. More clearly defines the tubercle bacilli of interest. • Tuberculin skin test (TST) – Remove definition. No longer needed because reporting is based on a positive result from any test. • Tuberculosis – Remove definition. This definition is not needed because more specific definitions for TB active disease and infection are already included in the regulations. • Tuberculosis, active disease – In the definition, change from “disease” to “communicable disease” to indicated that TB is spread from person to person. • Tuberculosis infection in children age <4 years – Modify definition name to Tuberculosis infection to account for the change being made in a separate regulatory action to require reporting of tuberculosis infection among all ages, not just persons <4 years of
--	--	--	--

			<p>age. Also change “tuberculin skin testing” to “positive result from a test for tuberculosis infection” to reflect a broader range of acceptable diagnostic test types.</p>
12VAC5-90-80		Directors of laboratories	<ul style="list-style-type: none"> • Change from submitting the isolate or clinical specimen within seven days to the Division of Consolidated Laboratory or other specified public health laboratory to submitting the isolate within five days and the clinical specimen within two days of a positive result.
12VAC5-90-90		Physicians	<ul style="list-style-type: none"> • Clarify that the list of elements to be reported on a case (e.g., name, address) represent the minimum reporting requirements. • Remove language stating that influenza should be reported by number of cases only. This is no longer required under this proposal. • Language added to reflect morbidity reporting through VDH’s online morbidity reporting portal. • Add language referring to “disease-specific” surveillance form instead of surveillance form. • Modify language to reflect that reporting timeframes are as established in 12VAC5-90-80 rather than listing them again in this subsection.
12VAC5-90-90		Directors of laboratories	<ul style="list-style-type: none"> • Language added that if a laboratory ascertains that the reference laboratory that tests a specimen reports to VDH electronically, then those reference laboratory findings do not need to be reported by the laboratory of origin. • Language added to reflect morbidity reporting through VDH’s online morbidity reporting portal. • Modify language to reflect that reporting timeframes are as established in 12VAC5-90-80 rather than listing them again in this subsection. • Language in subsection B pertaining to the submission of an initial isolate or other initial specimen to DCLS has been stricken because it has been updated and moved to 12VAC5-90-80 in a separate exempt regulatory action.

			<ul style="list-style-type: none"> • Add language that clarifies that if a facility director reports on behalf of the laboratory, the laboratory is still responsible for submitting isolates or specimens for public health testing “unless the laboratory has submitted an exemption request that has been approved by the department”.
12VAC5-90-90		Persons in charge of a medical facility	<ul style="list-style-type: none"> • Remove language stating that influenza should be reported by number of cases only. This is no longer required under this proposed amendment. • Modify language to reflect that reporting timeframes are as established in 12VAC5-90-80 rather than listing them again in this subsection. • Add language to reflect morbidity reporting through VDH’s online morbidity reporting portal. • Add language referring to “disease-specific” surveillance forms instead of surveillance forms.
12VAC5-90-90		Persons in charge of hospitals, nursing facilities or nursing homes, assisted living facilities, and correctional facilities	<ul style="list-style-type: none"> • List reportable organisms next to disease names so the reportable disease lists are equally meaningful to practicing clinicians and laboratorians.
12VAC5-90-103		Isolation for communicable disease of public health threat.	<ul style="list-style-type: none"> • Remove language referencing the commissioner’s role in enforcement. This is no longer contained in the Code of Virginia.
12VAC5-90-107		Quarantine	<ul style="list-style-type: none"> • Remove language referencing the commissioner’s role in enforcement. This is no longer contained in the Code of Virginia.
12VAC5-90-140		Procedure for preventing ophthalmia neonatorum	<ul style="list-style-type: none"> • Modify language to refer only to medications that are available in the United States.
12VAC5-90-215		Schedule and criteria for and confirmation of blood lead testing and information to be provided	<ul style="list-style-type: none"> • Change language “built before 1960” to “built before 1950”. • Add language stating that confirmatory testing is not required if the result of the capillary test is below CDC’s reference value. Reflects current national guidance on confirmatory testing. • Changed numbering under, “D. Confirmation of blood lead levels” to reflect the addition of language noted above.
12VAC5-90-225		Additional data to be reported related to persons with active tuberculosis	<ul style="list-style-type: none"> • Replace “tuberculin skin test (TST)” with “tests for tuberculosis infection”

		disease (confirmed or suspected)	<p>to reflect the availability of other tests for infection.</p> <ul style="list-style-type: none"> • Remove the examples provided for Mycobacterium tuberculosis complex. Not needed because this is defined earlier in the regulations. • Replaced “tubercle bacilli” with “M. tuberculosis complex” • Add language that laboratories are required to submit results of tests for tuberculosis infection. • Changed numbering under, “B. Laboratories are required to submit the following” to reflect the addition of language noted above.
12VAC5-90-280		Reporting of dangerous microbes and pathogens	<ul style="list-style-type: none"> • Removed the definitions for “Biologic agent”, “CDC”, “Diagnosis”, “Proficiency testing”, “Responsible official”, “Toxin”, and “Verification” because they are no longer needed. • Clarified that “dangerous microbes and pathogens” are “select agents and toxins”. • Removed subsections on Administration, Reportable agents, Those required to report, and Exemption from reporting as they are no longer necessary. This section of the regulations is being streamlined to require annual reporting as specified in the Code of Virginia and reporting of instances in which agency response would be necessary. • Section D. Items to report. Renumbered to Section B. Removed the requirement that a report shall be made on a form determined by VDH, contain information on the objectives of the work with the agent, location (including building and room) where each select agent is stored or used, identification information of persons with access to each agent, identification information of the person in charge of the agents, or that the laboratory has to report that it is registered with the CDC Select Agent Program. These requirements are no longer needed. Added that the name and address of the laboratory must be reported. • Section E. Renumbered to Section C. Timing of reports. Language has been modified to define who at a laboratory submits the required reports annually

			<p>and in instances involving a release, loss, or theft of a select agent of toxin, to whom at VDH and when. Language pertaining to reports that will no longer be required has been removed.</p> <ul style="list-style-type: none"> • Section H. Release of reported information. Renumbered to Section D and the statement about exemptions from liability has been moved to this subsection.
12VAC5-90-370		Reporting of healthcare-associated infections	<ul style="list-style-type: none"> • The term "facilities" has been replaced with the term "acute care hospitals" to comply with the language in the Code of Virginia. The data that hospitals share with VDH will be any they supply to CDC as a result of a requirement of the Centers for Medicare and Medicaid Services and not limited to the Hospital Inpatient Quality Reporting Program of that agency.
12VAC5-90-370		FORMS	<p>Removed reference to the following forms; Confidential Morbidity Report, Epi1 (rev. 10/2011), and the Virginia Cancer Registry Reporting Form (rev. 1/1998). These forms are no longer used by VDH.</p>

DEPARTMENT OF HEALTH
Office of Epi Regulation Review 2017-18 (5-90-10, 5-90-90-5-90-999)

Part I
Definitions

1 12VAC5-90-10. Definitions.

2 The following words and terms when used in this chapter shall have the following meanings
3 unless the context clearly indicates otherwise:

4 "Affected area" means any part or the whole of the Commonwealth, which has been identified
5 as where persons reside, or may be located, who are known to have been exposed to or infected
6 with, or who are reasonably suspected to have been exposed to or infected with, a communicable
7 disease of public health threat. "Affected area" shall include, but not be limited to, cities, counties,
8 towns, and subsections of such areas, public and private property, buildings, and other structures.

9 "Arboviral infection" means a viral illness that is transmitted by a mosquito, tick, or other
10 arthropod. This includes, but is not limited to, chikungunya (CHIK), dengue, eastern equine
11 encephalitis (EEE), LaCrosse encephalitis (LAC), also known as California encephalitis, St. Louis
12 encephalitis (SLE), West Nile virus (WNV), and Zika virus (Zika) infection.

13 "Board" means the State Board of Health.

14 "Cancer" means all carcinomas, sarcomas, melanomas, leukemias, and lymphomas
15 excluding localized basal and squamous cell carcinomas of the skin, except for lesions of the
16 mucous membranes.

17 "CDC" means the Centers for Disease Control and Prevention of the U.S. Department of
18 Health and Human Services.

19 "Child care center" means a child day center, child day program, family day home, family day
20 system, or registered family day home as defined by § 63.2-100 of the Code of Virginia, or a
21 similar place providing day care of children by such other name as may be applied.

22 "Clinic" means any facility, freestanding or associated with a hospital, that provides preventive,
23 diagnostic, therapeutic, rehabilitative, or palliative care or services to outpatients.

24 "Commissioner" means the State Health Commissioner or his duly designated officer or agent,
25 unless stated in a provision of this chapter that it applies to the State Health Commissioner in his
26 sole discretion.

27 "Communicable disease" means an illness due to an infectious agent or its toxic products
28 which is transmitted, directly or indirectly, to a susceptible host from an infected person, animal,

29 or arthropod or through the agency of an intermediate host or a vector or through the inanimate
30 environment.

31 "Communicable disease of public health significance" means an illness caused by a specific
32 or suspected infectious agent that may be transmitted directly or indirectly from one individual to
33 another. This includes but is not limited to infections caused by human immunodeficiency viruses,
34 bloodborne pathogens, and tubercle bacillus. The State Health Commissioner may determine that
35 diseases caused by other pathogens constitute communicable diseases of public health
36 significance.

37 "Communicable disease of public health threat" means an illness of public health significance,
38 as determined by the State Health Commissioner in accordance with this chapter, caused by a
39 specific or suspected infectious agent that may be reasonably expected or is known to be readily
40 transmitted directly or indirectly from one individual to another and has been found to create a
41 risk of death or significant injury or impairment; this definition shall not, however, be construed to
42 include human immunodeficiency viruses or the tubercle bacilli, unless used as a bioterrorism
43 weapon.

44 "Companion animal" means, consistent with the provisions of § 3.2-6500 of the Code of
45 Virginia, any domestic or feral dog, domestic or feral cat, nonhuman primate, guinea pig, hamster,
46 rabbit not raised for human food or fiber, exotic or native animal, reptile, exotic or native bird, or
47 any feral animal or any animal under the care, custody, or ownership of a person or any animal
48 that is bought, sold, traded, or bartered by any person. Agricultural animals, game species, or any
49 animals regulated under federal law as research animals shall not be considered companion
50 animals for the purpose of this chapter.

51 "Condition" means any adverse health event, such as a disease, an infection, a syndrome, or
52 as indicated by a procedure (including but not limited to the results of a physical exam, laboratory
53 test, or imaging interpretation) suggesting that an exposure of public health importance has
54 occurred.

55 "Contact" means a person or animal known to have been in such association with an infected
56 person or animal as to have had an opportunity of acquiring the infection.

57 "Contact services" means a broad array of services that are offered to persons with infectious
58 diseases and their contacts. Contact services include contact tracing, providing information about
59 current infections, developing risk reduction plans to reduce the chances of future infections, and
60 connecting to appropriate medical care and other services.

61 "Contact tracing" means the process by which an infected person or health department
62 employee notifies others that they may have been exposed to the infected person in a manner
63 known to transmit the infectious agent in question.

64 "Coronavirus infection, severe" means suspected or confirmed infection with severe acute
65 respiratory syndrome (SARS)-associated coronavirus (SARS-CoV), Middle East respiratory
66 syndrome (MERS)-associated coronavirus (MERS-CoV), or another coronavirus causing a
67 severe acute illness.

68 "Decontamination" means the use of physical or chemical means to remove, inactivate, or
69 destroy hazardous substances or organisms from a person, surface, or item to the point that such
70 substances or organisms are no longer capable of causing adverse health effects and the surface
71 or item is rendered safe for handling, use, or disposal.

72 "Department" means the State Department of Health, also referred to as the Virginia
73 Department of Health (VDH).

74 "Designee" or "designated officer or agent" means any person, or group of persons,
75 designated by the State Health Commissioner, to act on behalf of the commissioner or the board.

76 "Ehrlichiosis/Anaplasmosis" means human infections caused by *Ehrlichia chaffeensis*
77 (formerly included in the category "human monocytic ehrlichiosis" or "HME"), *Ehrlichia ewingii* or
78 *Anaplasma phagocytophilum* (formerly included in the category "human granulocytic ehrlichiosis"
79 or "HGE").

80 "Epidemic" means the occurrence in a community or region of cases of an illness clearly in
81 excess of normal expectancy.

82 "Essential needs" means basic human needs for sustenance including but not limited to food,
83 water, clothing, and health care (e.g., medications, therapies, testing, and durable medical
84 equipment).

85 "Exceptional circumstances" means the presence, as determined by the commissioner in his
86 sole discretion, of one or more factors that may affect the ability of the department to effectively
87 control a communicable disease of public health threat. Factors to be considered include but are
88 not limited to: (i) characteristics or suspected characteristics of the disease-causing organism or
89 suspected disease-causing organism such as virulence, routes of transmission, minimum
90 infectious dose, rapidity of disease spread, the potential for extensive disease spread, and the
91 existence and availability of demonstrated effective treatment; (ii) known or suspected risk factors
92 for infection; (iii) the potential magnitude of the effect of the disease on the health and welfare of
93 the public; and (iv) the extent of voluntary compliance with public health recommendations. The

94 determination of exceptional circumstances by the commissioner may take into account the
95 experience or results of investigation in Virginia, another state, or another country.

96 "Foodborne outbreak" means two or more cases of a similar illness acquired through the
97 consumption of food contaminated with chemicals or an infectious agent or its toxic products.
98 Such illnesses include but are not limited to heavy metal intoxication, staphylococcal food
99 poisoning, botulism, salmonellosis, shigellosis, Clostridium perfringens food poisoning, hepatitis
100 A, and Shiga toxin-producing Escherichia coli infection.

101 "Healthcare-associated infection" (also known as nosocomial infection) means a localized or
102 systemic condition resulting from an adverse reaction to the presence of an infectious agent or
103 agents or its toxin or toxins that (i) occurs in a patient in a health care setting (e.g., a
104 hospital/medical care facility or outpatient clinic), and (ii) was not found to be present or incubating
105 at the time of admission unless the infection was related to a previous admission to the same
106 setting, ~~and (iii) if the setting is a hospital, meets the criteria for a specific infection site as defined~~
107 ~~by CDC.~~

108 ~~"Hepatitis C, acute" means the following clinical characteristics are met: (i) discrete onset of~~
109 ~~symptoms indicative of viral hepatitis and (ii) jaundice or elevated serum aminotransferase levels~~
110 ~~and the following laboratory criteria are met: (a) serum alanine aminotransferase levels (ALT)~~
111 ~~greater than 200 IU/L; (b) IgM anti-HAV negative (if done); (c) IgM anti-HBc negative (if done);~~
112 ~~and (d) hepatitis C virus antibody (anti-HCV) positive, HCV antigen positive, or HCV RNA positive~~
113 ~~by nucleic acid test.~~

114 ~~"Hepatitis C, chronic" means that the laboratory criteria specified in clauses (b), (c) and (d)~~
115 ~~listed above for an acute case are met but clinical signs or symptoms of acute viral hepatitis are~~
116 ~~not present and serum alanine aminotransferase (ALT) levels do not exceed 200 IU/L. This~~
117 ~~category will include cases that may be acutely infected but not symptomatic.~~

118 "Immunization" means a procedure that increases the protective response of an individual's
119 immune system to specified pathogens.

120 "Independent pathology laboratory" means a nonhospital or a hospital laboratory performing
121 surgical pathology, including fine needle aspiration biopsy and bone marrow specimen
122 examination services, which reports the results of such tests directly to physician offices, without
123 reporting to a hospital or accessioning the information into a hospital tumor registry.

124 "Individual" means a person or companion animal. When the context requires it, "person or
125 persons" shall be deemed to include any individual.

126 "Infection" means the entry and multiplication or persistence of a disease-causing organism
127 (prion, virus, bacteria, fungus, parasite, or ectoparasite) in the body of an individual. An infection

128 may be inapparent (i.e., without recognizable signs or symptoms but identifiable by laboratory
129 means) or manifest (clinically apparent).

130 "Influenza A, novel virus" means infection of a human with an influenza A virus subtype that
131 is different from currently circulating human influenza H1 and H3 viruses. Novel subtypes include
132 H2, H5, H7, and H9 subtypes or influenza H1 and H3 subtypes originating from a nonhuman
133 species or from genetic reassortment of human and animal influenza viruses.

134 "Invasive" means the organism is affecting a normally sterile site, including but not limited to
135 blood or cerebrospinal fluid.

136 "Investigation" means an inquiry into the incidence, prevalence, extent, source, mode of
137 transmission, causation of, and other information pertinent to a disease occurrence.

138 "Isolation" means the physical separation, including confinement or restriction of movement,
139 of an individual or individuals who are infected with, or are reasonably suspected to be infected
140 with, a communicable disease in order to prevent or limit the transmission of the communicable
141 disease to uninfected and unexposed individuals.

142 "Isolation, complete" means the full-time confinement or restriction of movement of an
143 individual or individuals infected with, or reasonably suspected to be infected with, a
144 communicable disease in order to prevent or limit the transmission of the communicable disease
145 to uninfected and unexposed individuals.

146 "Isolation, modified" means a selective, partial limitation of freedom of movement or actions
147 of an individual or individuals infected with, or reasonably suspected to be infected with, a
148 communicable disease. Modified isolation is designed to meet particular situations and includes
149 but is not limited to the exclusion of children from school, the prohibition or restriction from
150 engaging in a particular occupation or using public or mass transportation, or requirements for
151 the use of devices or procedures intended to limit disease transmission.

152 "Isolation, protective" means the physical separation of a susceptible individual or individuals
153 not infected with, or not reasonably suspected to be infected with, a communicable disease from
154 an environment where transmission is occurring, or is reasonably suspected to be occurring, in
155 order to prevent the individual or individuals from acquiring the communicable disease.

156 "Laboratory" means a clinical laboratory that examines materials derived from the human body
157 for the purpose of providing information on the diagnosis, prevention, or treatment of disease.

158 "Laboratory director" means any person in charge of supervising a laboratory conducting
159 business in the Commonwealth of Virginia.

160 "Law-enforcement agency" means any sheriff's office, police department, adult or youth
161 correctional officer, or other agency or department that employs persons who have law-

162 enforcement authority that is under the direction and control of the Commonwealth or any local
163 governing body. "Law-enforcement agency" shall include, by order of the Governor, the Virginia
164 National Guard.

165 ~~"Lead, reportable levels" means any detectable blood lead level in children 15 years of age~~
166 ~~and younger and levels greater than or equal to 5 µg/dL in a person older than 15 years of age.~~

167 "Least restrictive" means the minimal limitation of the freedom of movement and
168 communication of an individual while under an order of isolation or an order of quarantine that
169 also effectively protects unexposed and susceptible individuals from disease transmission.

170 "Medical care facility" means any hospital or nursing home licensed in the Commonwealth, or
171 any hospital operated by or contracted to operate by an entity of the United States government
172 or the Commonwealth of Virginia.

173 "Midwife" means any person who is licensed as a nurse midwife by the Virginia Boards of
174 Nursing and Medicine or who is licensed by the Board of Medicine as a certified professional
175 midwife.

176 "National Healthcare Safety Network" or "NHSN" means a surveillance system created by the
177 CDC for accumulating, exchanging, and integrating relevant information on infectious adverse
178 events associated with health care delivery.

179 "Nucleic acid detection" means laboratory testing of a clinical specimen to determine the
180 presence of deoxyribonucleic acid (DNA) or ribonucleic acid (RNA) specific for an infectious agent
181 using any method, including hybridization, sequencing, or amplification such as polymerase chain
182 reaction.

183 "Nurse" means any person licensed as a professional nurse or as a licensed practical nurse
184 by the Virginia Board of Nursing.

185 "Occupational outbreak" means a cluster of illness or disease that is indicative of a work-
186 related exposure. Such conditions include but are not limited to silicosis, asbestosis, byssinosis,
187 pneumoconiosis, and tuberculosis.

188 "Outbreak" means the occurrence of more cases of a disease than expected.

189 "Period of communicability" means the time or times during which the etiologic agent may be
190 transferred directly or indirectly from an infected person to another person, or from an infected
191 animal to a person.

192 "Physician" means any person licensed to practice medicine or osteopathy by the Virginia
193 Board of Medicine.

194 "Quarantine" means the physical separation, including confinement or restriction of
195 movement, of an individual or individuals who are present within an affected area or who are

196 known to have been exposed, or may reasonably be suspected to have been exposed, to a
197 communicable disease and who do not yet show signs or symptoms of infection with the
198 communicable disease in order to prevent or limit the transmission of the communicable disease
199 of public health threat to unexposed and uninfected individuals.

200 "Quarantine, complete" means the full-time confinement or restriction of movement of an
201 individual or individuals who do not have signs or symptoms of infection but may have been
202 exposed, or may reasonably be suspected to have been exposed, to a communicable disease of
203 public health threat in order to prevent the transmission of the communicable disease of public
204 health threat to uninfected individuals.

205 "Quarantine, modified" means a selective, partial limitation of freedom of movement or actions
206 of an individual or individuals who do not have signs or symptoms of the infection but have been
207 exposed to, or are reasonably suspected to have been exposed to, a communicable disease of
208 public health threat. Modified quarantine may be designed to meet particular situations and
209 includes but is not limited to limiting movement to the home, work, or one or more other locations,
210 the prohibition or restriction from using public or mass transportation, or requirements for the use
211 of devices or procedures intended to limit disease transmission.

212 "Reportable disease" means an illness due to a specific toxic substance, occupational
213 exposure, or infectious agent, which affects a susceptible individual, either directly, as from an
214 infected animal or person, or indirectly through an intermediate host, vector, or the environment,
215 as determined by the board.

216 "School" means (i) any public school from kindergarten through grade 12 operated under the
217 authority of any locality within the Commonwealth, (ii) any private or religious school that offers
218 instruction at any level or grade from kindergarten through grade 12; and (iii) any private or
219 religious nursery school or preschool, or any private or religious child care center required to be
220 licensed by the Commonwealth.

221 "Serology" means the testing of blood, serum, or other body fluids for the presence of
222 antibodies or other markers of an infection or disease process.

223 "Surveillance" means the ongoing systematic collection, analysis, and interpretation of
224 outcome-specific data for use in the planning, implementation, and evaluation of public health
225 practice. A surveillance system includes the functional capacity for data analysis as well as the
226 timely dissemination of these data to persons who can undertake effective prevention and control
227 activities.

228 "Susceptible individual" means a person or animal who is vulnerable to or potentially able to
229 contract a disease or condition. Factors that affect an individual's susceptibility include but are not

230 limited to physical characteristics, genetics, previous or chronic exposures, chronic conditions or
231 infections, immunization history, or use of medications.

232 "Toxic substance" means any substance, including any raw materials, intermediate products,
233 catalysts, final products, or by-products of any manufacturing operation conducted in a
234 commercial establishment, that has the capacity, through its physical, chemical or biological
235 properties, to pose a substantial risk of death or impairment either immediately or over time, to
236 the normal functions of humans, aquatic organisms, or any other animal but not including any
237 pharmaceutical preparation which deliberately or inadvertently is consumed in such a way as to
238 result in a drug overdose.

239 ~~"Tubercle bacilli" means disease-causing organisms belonging to the Mycobacterium~~
240 ~~tuberculosis complex and includes Mycobacterium tuberculosis, Mycobacterium bovis, and~~
241 ~~Mycobacterium africanum or other members as may be established by the commissioner.~~

242 "Tubercle bacilli" means disease-causing organisms belonging to the Mycobacterium
243 tuberculosis complex and includes Mycobacterium tuberculosis, Mycobacterium africanum,
244 Mycobacterium bovis, Mycobacterium canetti, Mycobacterium microti, Mycobacterium caprae or
245 other members as may be established by the commissioner.

246 ~~"Tuberculin skin test (TST)" means a test for demonstrating infection with tubercle bacilli,~~
247 ~~performed according to the Mantoux method, in which 0.1 ml of 5-TU strength tuberculin purified~~
248 ~~protein derivative (PPD) is injected intradermally on the volar surface of the arm. Any reaction is~~
249 ~~observed 48-72 hours after placement and palpable induration is measured across the diameter~~
250 ~~transverse to the long axis of the arm. The measurement of the indurated area is recorded in~~
251 ~~millimeters and the significance of the measured induration is based on existing national and~~
252 ~~department guidelines.~~

253 ~~"Tuberculosis" means a disease caused by tubercle bacilli.~~

254 "Tuberculosis, active disease" (also "active tuberculosis disease" and "active TB disease"),
255 as defined by § 32.1-49.1 of the Code of Virginia, means a communicable disease caused by an
256 airborne microorganism and characterized by the presence of either (i) a specimen of sputum or
257 other bodily fluid or tissue that has been found to contain tubercle bacilli as evidenced by culture
258 or nucleic acid amplification, including preliminary identification by rapid methodologies; (ii) a
259 specimen of sputum or other bodily fluid or tissue that is suspected to contain tubercle bacilli as
260 evidenced by smear, and where sufficient clinical and radiographic evidence of active tuberculosis
261 disease is present as determined by a physician licensed to practice medicine in Virginia; or (iii)
262 sufficient clinical and radiographic evidence of active tuberculosis disease as determined by the

263 commissioner is present, but a specimen of sputum or other bodily fluid or tissue containing, or
264 suspected of containing, tubercle bacilli is unobtainable.

265 "Tuberculosis infection in children age <4 years" means a significant reaction resulting from a
266 tuberculin skin test (TST) or other approved test for latent infection without positive result from a
267 test for tuberculosis infection without clinical or radiographic other evidence of active tuberculosis
268 disease, in children from birth up to their fourth birthday.

269 "Vaccinia, disease or adverse event" means vaccinia infection or serious or unexpected
270 events in persons who received the smallpox vaccine or their contacts, including but not limited
271 to bacterial infections, eczema vaccinatum, erythema multiforme, generalized vaccinia,
272 progressive vaccinia, inadvertent inoculation, post-vaccinial encephalopathy or
273 encephalomyelitis, ocular vaccinia, and fetal vaccinia.

274 "Waterborne outbreak" means two or more cases of a similar illness acquired through the
275 ingestion of or other exposure to water contaminated with chemicals or an infectious agent or its
276 toxic products. Such illnesses include but are not limited to giardiasis, viral gastroenteritis,
277 cryptosporidiosis, hepatitis A, cholera, and shigellosis. A single case of laboratory-confirmed
278 primary amebic meningoencephalitis or of waterborne chemical poisoning is considered an
279 outbreak.

Part III

Reporting of Disease

280 **12VAC5-90-80. Lists of diseases that shall be reported.**

281 A. Reportable disease list. The board declares suspected or confirmed cases of the following
282 named diseases, toxic effects, and conditions to be reportable by the persons enumerated in
283 12VAC5-90-90. Conditions identified by an asterisk (*) require immediate communication to the
284 local health department by the most rapid means available upon suspicion or confirmation, as
285 defined in subsection C of this section. Other conditions should be reported within three days of
286 suspected or confirmed diagnosis, unless otherwise specified in this section. Neonatal Abstinence
287 Syndrome shall be reported as specified in subsection E of this section.

288 Amebiasis (*Entamoeba histolytica*)

289 *Anthrax (*Bacillus anthracis*)

290 Arboviral infections (e.g., CHIK, dengue, EEE, LAC, SLE, WNV, Zika)

291 Babesiosis (*Babesia* spp.)

292 *Botulism (*Clostridium botulinum*)

293 *Brucellosis (*Brucella* spp.)

294 Campylobacteriosis (*Campylobacter* spp.)

295	Candida auris, infection or colonization
296	Carbapenemase-producing organism, infection or colonization
297	Chancroid (<i>Haemophilus ducreyi</i>)
298	Chickenpox (<i>Varicella virus</i>)
299	Chlamydia trachomatis infection
300	*Cholera (<i>Vibrio cholerae</i> O1/O139)
301	*Coronavirus infection, severe
302	Cryptosporidiosis (<i>Cryptosporidium</i> spp.)
303	Cyclosporiasis (<i>Cyclospora</i> spp.)
304	*Diphtheria (<i>Corynebacterium diphtheriae</i>)
305	*Disease caused by an agent that may have been used as a weapon
306	Ehrlichiosis/Anaplasmosis (<i>Ehrlichia</i> spp., <i>Anaplasma phagocytophilum</i>)
307	Giardiasis (<i>Giardia</i> spp.)
308	Gonorrhea (<i>Neisseria gonorrhoeae</i>)
309	Granuloma inguinale (<i>Calymmatobacterium granulomatis</i>)
310	* <i>Haemophilus influenzae</i> infection, invasive
311	Hantavirus pulmonary syndrome
312	Hemolytic uremic syndrome (HUS)
313	*Hepatitis A
314	Hepatitis B (acute and chronic)
315	Hepatitis C (acute and chronic)
316	Hepatitis, other acute viral
317	Human immunodeficiency virus (HIV) infection
318	Influenza, confirmed
319	*Influenza-associated deaths if younger than 18 years of age
320	Lead, blood levels
321	Legionellosis (<i>Legionella</i> spp.)
322	Leprosy (Hansen's disease) (<i>Mycobacterium leprae</i>)
323	Leptospirosis (<i>Leptospira interrogans</i>)
324	Listeriosis (<i>Listeria monocytogenes</i>)
325	Lyme disease (<i>Borrelia</i> spp.)
326	Lymphogranuloma venereum (<i>Chlamydia trachomatis</i>)
327	Malaria (<i>Plasmodium</i> spp.)
328	*Measles (<i>Rubeola</i>)

- 329 *Meningococcal disease (*Neisseria meningitidis*)
- 330 Mumps
- 331 Neonatal abstinence syndrome (NAS)
- 332 Ophthalmia neonatorum
- 333 *Outbreaks, all (including foodborne, healthcare-associated, occupational, toxic
- 334 substance-related, waterborne, and any other outbreak)
- 335 *Pertussis (*Bordetella pertussis*)
- 336 *Plague (*Yersinia pestis*)
- 337 *Poliovirus infection, including poliomyelitis
- 338 *Psittacosis (*Chlamydia psittaci*)
- 339 *Q fever (*Coxiella burnetii*)
- 340 *Rabies, human and animal
- 341 Rabies treatment, post-exposure
- 342 *Rubella, including congenital rubella syndrome
- 343 Salmonellosis (*Salmonella* spp.)
- 344 Shiga toxin-producing *Escherichia coli* infection
- 345 Shigellosis (*Shigella* spp.)
- 346 *Smallpox (*Variola virus*)
- 347 Spotted fever rickettsiosis (*Rickettsia* spp.)
- 348 Streptococcal disease, Group A, invasive or toxic shock
- 349 *Streptococcus pneumoniae* infection, invasive, if younger than five years of age
- 350 Syphilis (*Treponema pallidum*), report *congenital, *primary, *secondary, and other
- 351 Tetanus (*Clostridium tetani*)
- 352 Toxic substance-related illness
- 353 Trichinosis (Trichinellosis) (*Trichinella spiralis*)
- 354 *Tuberculosis, active disease (*Mycobacterium tuberculosis* complex)
- 355 Tuberculosis infection
- 356 *Tularemia (*Francisella tularensis*)
- 357 *Typhoid/Paratyphoid fever (*Salmonella Typhi*, *Salmonella Paratyphi*)
- 358 *Unusual occurrence of disease of public health concern
- 359 *Vaccinia, disease or adverse event
- 360 Vancomycin-intermediate or vancomycin-resistant *Staphylococcus aureus* infection
- 361 *Vibriosis (*Vibrio* spp.)
- 362 *Viral hemorrhagic fever

363 *Yellow fever
364 Yersiniosis (*Yersinia* spp.)
365 B. Conditions reportable by directors of laboratories. Laboratories shall report all test results
366 indicative of and specific for the diseases, infections, microorganisms, conditions, and toxic
367 effects specified below for humans. Such tests include but are not limited to: microbiological
368 culture, isolation, or identification; assays for specific antibodies; and identification of specific
369 antigens, toxins, or nucleic acid sequences. Additional condition-specific requirements are noted
370 in this section. Conditions identified by an asterisk (*) require immediate communication to the
371 local health department by the most rapid means available upon suspicion or confirmation, as
372 defined in subsection C of this section. Other conditions should be reported within three days of
373 suspected or confirmed diagnosis.
374 Amebiasis (*Entamoeba histolytica*)
375 *Anthrax (*Bacillus anthracis*)
376 Arboviral infection, for example, CHIK, dengue, EEE, LAC (also known as California
377 encephalitis), SLE, WNV, Zika
378 Babesiosis (*Babesia* spp.)
379 *Botulism (*Clostridium botulinum*)
380 *Brucellosis (*Brucella* spp.)
381 Campylobacteriosis (*Campylobacter* spp.)
382 *Candida auris* – Include available antimicrobial susceptibility findings in report.
383 Carbapenemase-producing organism – Include available antimicrobial susceptibility
384 findings in report.
385 Chancroid (*Haemophilus ducreyi*)
386 Chickenpox (*Varicella* virus)
387 Chlamydia trachomatis infection
388 *Cholera (*Vibrio cholerae* O1/O139)
389 *Coronavirus infection, severe (for example, SARS-CoV, MERS-CoV)
390 Cryptosporidiosis (*Cryptosporidium* spp.)
391 Cyclosporiasis (*Cyclospora* spp.)
392 *Diphtheria (*Corynebacterium diphtheriae*)
393 Ehrlichiosis/Anaplasmosis (*Ehrlichia* spp., *Anaplasma phagocytophilum*)
394 Giardiasis (*Giardia* spp.)
395 Gonorrhea (*Neisseria gonorrhoeae*) - Include available antimicrobial susceptibility findings
396 in report-

- 397 *Haemophilus influenzae infection, invasive
- 398 Hantavirus pulmonary syndrome
- 399 *Hepatitis A
- 400 Hepatitis B (acute and chronic) - For all hepatitis B patients, also report available results
- 401 of serum alanine aminotransferase (ALT) and all available results from the hepatitis panel.
- 402 Hepatitis C (acute and chronic) - For all patients with any positive HCV test, also report all
- 403 results of HCV viral load tests, including undetectable viral loads and report available
- 404 results of serum alanine aminotransferase (ALT) and all available results from the hepatitis
- 405 panel.
- 406 Hepatitis, other acute viral – any finding indicative of acute infection with hepatitis D, E, or
- 407 other cause of viral hepatitis. For any reportable hepatitis finding, submit all available
- 408 results from the hepatitis panel.
- 409 Human immunodeficiency virus (HIV) infection - For HIV-infected patients, report all
- 410 results of CD4 and HIV viral load tests, including undetectable viral loads. For HIV-infected
- 411 patients, report all HIV genetic nucleotide sequence data associated with HIV drug
- 412 resistance tests by electronic submission. For children younger than three years of age,
- 413 report all tests regardless of the test findings (for example, negative or positive).
- 414 Influenza, confirmed - by culture, antigen detection by direct fluorescent antibody (DFA),
- 415 or nucleic acid detection
- 416 Lead, blood levels - all lead results from tests of venous or capillary blood performed by a
- 417 laboratory certified by the federal Centers for Medicare and Medicaid Services in
- 418 accordance with 42 USC § 263a, the Clinical Laboratory Improvement Amendment of
- 419 1988 (CLIA-certified).
- 420 Legionellosis (*Legionella* spp.)
- 421 Leptospirosis (*Leptospira interrogans*)
- 422 Listeriosis (*Listeria monocytogenes*) - invasive, or if associated with miscarriage or
- 423 stillbirth, from placental or fetal tissue
- 424 Lyme disease (*Borrelia* spp.)
- 425 Malaria (*Plasmodium* spp.)
- 426 *Measles (*Rubeola*)
- 427 *Meningococcal disease (*Neisseria meningitidis*), invasive – including identification of
- 428 gram-negative diplococci
- 429 Mumps
- 430 *Mycobacterial diseases - (See 12VAC5-90-225 B) Report any of the following:

- 431 1. Acid fast bacilli;
- 432 2. *M. tuberculosis* complex or any other mycobacteria;
- 433 3. Antimicrobial susceptibility test results for *M. tuberculosis* complex.
- 434 *Pertussis (*Bordetella pertussis*)
- 435 *Plague (*Yersinia pestis*)
- 436 *Poliovirus infection
- 437 *Psittacosis (*Chlamydia psittaci*)
- 438 *Q fever (*Coxiella burnetii*)
- 439 *Rabies, human and animal
- 440 *Rubella
- 441 Salmonellosis (*Salmonella* spp.)
- 442 Shiga toxin-producing *Escherichia coli* infection
- 443 Shigellosis (*Shigella* spp.)
- 444 *Smallpox (*Variola virus*)
- 445 Spotted fever rickettsiosis (*Rickettsia* spp.)
- 446 Streptococcal disease, Group A, invasive or toxic shock
- 447 *Streptococcus pneumoniae* infection, invasive, if younger than five years of age
- 448 *Syphilis (*Treponema pallidum*)
- 449 Toxic substance-related illness - by blood or urine laboratory findings above the normal
- 450 range, including but not limited to heavy metals, pesticides, and industrial-type solvents
- 451 and gases. When applicable and available, report speciation of metals when blood or urine
- 452 levels are elevated in order to differentiate the chemical species (elemental, organic, or
- 453 inorganic).
- 454 Trichinosis (Trichinellosis) (*Trichinella spiralis*)
- 455 Tuberculosis infection
- 456 *Tularemia (*Francisella tularensis*)
- 457 *Typhoid/Paratyphoid fever (*Salmonella* Typhi, *Salmonella* Paratyphi A, *Salmonella*
- 458 Paratyphi B, *Salmonella* Paratyphi C)
- 459 *Vaccinia, disease or adverse event
- 460 Vancomycin-intermediate or vancomycin-resistant *Staphylococcus aureus* infection –
- 461 Include available antimicrobial susceptibility findings in report.
- 462 *Vibriosis (*Vibrio* spp., *Photobacterium damsela*, *Grimontia hollisae*), other than toxigenic
- 463 *Vibrio cholera* O1 or O139, which are reportable as cholera
- 464 *Viral hemorrhagic fever

465 *Yellow fever
466 Yersiniosis (*Yersinia* spp.)
467 C. Reportable diseases requiring rapid communication. Certain of the diseases in the list of
468 reportable diseases, because of their extremely contagious nature, potential for greater harm, or
469 both, availability of a specific intervention that must be administered in a timely manner, require
470 immediate identification and control. Reporting of persons confirmed or suspected of having these
471 diseases, listed in this subsection, shall be made immediately by the most rapid means available,
472 preferably by telephone to the local health department. (These same diseases are also identified
473 by an asterisk (*) in subsections A and B, where applicable, of this section.)
474 Anthrax (*Bacillus anthracis*)
475 Botulism (*Clostridium botulinum*)
476 Brucellosis (*Brucella* spp.)
477 Cholera (*Vibrio cholerae* O1/O139)
478 Coronavirus infection, severe
479 Diphtheria (*Corynebacterium diphtheriae*)
480 Disease caused by an agent that may have been used as a weapon
481 Haemophilus influenzae infection, invasive
482 Hepatitis A
483 Influenza-associated deaths if younger than 18 years of age
484 Influenza A, novel virus
485 Measles (*Rubeola* virus)
486 Meningococcal disease (*Neisseria meningitidis*)
487 Outbreaks, all
488 Pertussis (*Bordetella pertussis*)
489 Plague (*Yersinia pestis*)
490 Poliovirus infection, including poliomyelitis
491 Psittacosis (*Chlamydophila psittaci*)
492 Q fever (*Coxiella burnetii*)
493 Rabies, human and animal
494 Rubella, including congenital rubella syndrome
495 Smallpox (~~Variola~~)(*Variola* virus)
496 Syphilis, congenital, primary, and secondary (*Treponema pallidum*)
497 Tuberculosis, active disease (*Mycobacterium tuberculosis* complex)
498 Tularemia (*Francisella tularensis*)

- 499 Typhoid/Paratyphoid fever (Salmonella Typhi, Salmonella Paratyphi (all types))
- 500 Unusual occurrence of disease of public health concern
- 501 Vaccinia, disease or adverse event
- 502 Vibriosis (Vibrio spp., Photobacterium damsela, Grimontia hollisae), other than toxigenic
- 503 Vibrio cholerae O1 or O139, which are reportable as cholera
- 504 Viral hemorrhagic fever
- 505 Yellow fever
- 506 D. Submission of initial isolate or other specimen for further public health testing. A laboratory
- 507 identifying evidence of any of the following conditions in this subsection shall notify the local health
- 508 department of the positive culture or other positive test result within the timeframes specified in
- 509 subsection B of this section and submit the initial isolate (preferred) ~~or other initial specimen~~ within
- 510 five days or the clinical specimen within two days of a positive result to the Division of
- 511 Consolidated Laboratory Services or other public health laboratory where specified below ~~within~~
- 512 ~~seven days of identification~~. All specimens must be identified with the patient and physician
- 513 information required in 12VAC5-90-90 B.
- 514 Anthrax (Bacillus anthracis)
- 515 Botulism (Clostridium botulinum)
- 516 Brucellosis (Brucella sp.)
- 517 Candida auris
- 518 Candida haemulonii
- 519 Carbapenem-resistant Enterobacteriaceae
- 520 Carbapenem-resistant Pseudomonas aeruginosa
- 521 Cholera (Vibrio cholerae O1/O139)
- 522 Coronavirus infection, severe (e.g., SARS-CoV, MERS-CoV)
- 523 Diphtheria (Corynebacterium diphtheriae)
- 524 Haemophilus influenzae infection, invasive
- 525 Influenza, unsubtypeable
- 526 Listeriosis (Listeria monocytogenes)
- 527 Meningococcal disease (Neisseria meningitidis)
- 528 Plague (Yersinia pestis)
- 529 Poliovirus infection
- 530 Q fever (Coxiella burnetii)
- 531 Salmonellosis (Salmonella spp.)

532 Shiga toxin-producing *E. coli* infection (Laboratories that identify a Shiga toxin but do not
533 perform simultaneous culture for Shiga toxin-producing *E. coli* should forward all positive
534 stool specimens or positive enrichment broths to the DCLS for confirmation and further
535 characterization.)
536 Shigellosis (*Shigella* spp.)
537 Streptococcal disease, Group A, invasive
538 Tuberculosis (A laboratory identifying *Mycobacterium tuberculosis* complex (see 12VAC5-
539 90-225) shall submit a representative and viable sample of the initial culture to the Division
540 of Consolidated Laboratory Services or other laboratory designated by the board to
541 receive such specimen.)
542 Tularemia (*Francisella tularensis*)
543 Typhoid/Paratyphoid fever (*Salmonella Typhi*, *Salmonella Paratyphi* (all types))
544 Vancomycin-intermediate or vancomycin-resistant *Staphylococcus aureus* infection
545 Vibriosis (*Vibrio* spp., *Photobacterium damsela*, *Grimontia hollisae*)
546 Yersiniosis (*Yersinia* spp.)
547 Other diseases as may be requested by the health department
548 E. Neonatal abstinence syndrome. Neonatal abstinence syndrome shall be reported by
549 physicians and directors of medical care facilities when a newborn has been diagnosed with
550 neonatal abstinence syndrome, a condition characterized by clinical signs of withdrawal from
551 exposure to prescribed or illicit drugs. Reports shall be submitted within one month of diagnosis
552 by entering the information into the Department of Health's online Confidential Morbidity Report
553 portal (<http://www.vdh.virginia.gov/clinicians>).
554 F. Outbreaks. The occurrence of outbreaks or clusters of any illness that may represent a
555 group expression of an illness that may be of public health concern shall be reported to the local
556 health department immediately by the most rapid means available, preferably by telephone.
557 G. Toxic substance-related illnesses. All toxic substance-related illnesses, including pesticide
558 and heavy metal poisoning or illness resulting from exposure to an occupational dust or fiber or
559 radioactive substance, shall be reported.
560 If such illness is verified or suspected and presents an emergency or a serious threat to public
561 health or safety, the report of such illness shall be made immediately by the most rapid means
562 available, preferably by telephone.
563 H. Unusual occurrence of disease of public health concern. Unusual or emerging conditions
564 of public health concern shall be reported to the local health department immediately by the most
565 rapid means available, preferably by telephone. In addition, the commissioner or his designee

566 may establish surveillance systems for diseases or conditions that are not on the list of reportable
567 diseases. Such surveillance may be established to identify cases (delineate the magnitude of the
568 situation), to identify the mode of transmission and risk factors for the disease, and to identify and
569 implement appropriate action to protect public health. Any person reporting information at the
570 request of the department for special surveillance or other epidemiological studies shall be
571 immune from liability as provided by § 32.1-38 of the Code of Virginia.

572 **12VAC5-90-90. Those required to report.**

573 A. Physicians. Each physician who treats or examines any person who is suffering from or
574 who is suspected of having a reportable disease or condition shall report, at a minimum, that
575 person's name, address, age, date of birth, race, sex, and pregnancy status for females; name of
576 disease diagnosed or suspected; the date of onset of illness; available laboratory tests and
577 results; and the name, address, and telephone number of the physician and medical facility where
578 the examination was made, ~~except that influenza should be reported by number of cases only~~
579 ~~(and type of influenza, if available)~~. Reports are to be made to the local health department serving
580 the jurisdiction where the physician practices. A physician may designate someone to report on
581 his behalf, but the physician remains responsible for ensuring that the appropriate report is made.
582 Any physician, designee, or organization making such report as authorized herein shall be
583 immune from liability as provided by § 32.1-38 of the Code of Virginia.

584 Such reports shall be made within the timeframes specified in 12VAC5-90-80 to the local
585 health department serving the jurisdiction in which the facility is located. Reports shall be made
586 ~~on a Form Epi-1, a computer generated printout containing the data items requested on Form~~
587 ~~Epi-1, via the Department of Health's online Confidential Morbidity Report portal~~
588 ~~(<http://www.vdh.virginia.gov/clinicians>) or a CDC or VDH disease-specific surveillance form that~~
589 ~~provides the same information and shall be made within three days of the suspicion or~~
590 ~~confirmation of disease except that those identified in 12VAC5-90-80 C shall be reported~~
591 ~~immediately by the most rapid means available, preferably by telephone, to the local health~~
592 ~~department serving the jurisdiction in which the facility is located~~. Reporting may be done by
593 means of secure electronic transmission upon agreement of the physician and the department.

594 Additional elements are required to be reported for individuals with confirmed or suspected
595 active tuberculosis disease. Refer to Part X (12VAC5-90-225 et seq.) for details on these
596 requirements.

597 B. Directors of laboratories. Laboratory directors shall report any laboratory examination of
598 any clinical specimen, ~~whether performed in-house or referred to an out-of-state laboratory,~~ which
599 yields evidence, ~~by the laboratory method(s) indicated or any other confirmatory test,~~ of a disease

600 listed in 12VAC5-90-80 B. Laboratory directors shall report results that are performed in-house or
601 referred to a reference laboratory, with the following exception: if the laboratory director ascertains
602 that the reference laboratory that tests a specimen reports to the department electronically, then
603 those reference laboratory findings do not need to be reported by the laboratory of origin.

604 Each report shall give the source of the specimen and the laboratory method and result; the
605 name, address, age, date of birth, race, sex, and pregnancy status for females (if known) of the
606 person from whom the specimen was obtained; and the name, address, and telephone number
607 of the physician at whose request and medical facility at which the examination was made. When
608 the influenza virus is isolated, the type should be reported, if available. Reports shall be made
609 within ~~three days of identification of evidence of disease, except that those identified in 12VAC5-~~
610 ~~90-80 C shall be reported immediately by the most rapid means available, preferably by~~
611 ~~telephone, the timeframes specified in 12VAC5-90-80~~ to the local health department serving the
612 jurisdiction in which the laboratory is located. Reports shall be made ~~on Form Epi-1~~ via the
613 Department's online Confidential Morbidity Report portal or on the laboratory's own form if it
614 includes the required information. Computer generated reports containing the required
615 information may be submitted. Reporting may be done by means of secure electronic
616 transmission upon agreement of the laboratory director and the department. Reports of HIV
617 genetic nucleotide sequence data associated with HIV drug resistance tests must be submitted
618 electronically. Any person making such report as authorized herein shall be immune from liability
619 as provided by § 32.1-38 of the Code of Virginia.

620 ~~A laboratory identifying evidence of any of the following conditions shall notify the local health~~
621 ~~department of the positive culture or other positive test result within the timeframes specified in~~
622 ~~12VAC5-90-80 and submit the initial isolate or other initial specimen to the Division of~~
623 ~~Consolidated Laboratory Services within seven days of identification. All specimens must be~~
624 ~~identified with the patient and physician information required in this subsection.~~

625 Anthrax

626 Botulism

627 Brucellosis

628 Cholera

629 Diphtheria

630 ~~E. coli infection, Shiga toxin-producing. (Laboratories that use a Shiga toxin EIA~~
631 ~~methodology but do not perform simultaneous culture for Shiga toxin-producing E. coli~~
632 ~~should forward all positive stool specimens or positive enrichment broths to the Division~~
633 ~~of Consolidated Laboratory Services for confirmation and further characterization.)~~

- 634 Haemophilus influenzae infection, invasive
- 635 Influenza A, novel virus
- 636 Listeriosis
- 637 Meningococcal disease
- 638 Pertussis
- 639 Plague
- 640 Poliovirus infection
- 641 Q fever
- 642 Salmonellosis
- 643 Shigellosis
- 644 Streptococcal disease, Group A, invasive
- 645 Tuberculosis (A laboratory identifying Mycobacterium tuberculosis complex (see 12VAC5-
- 646 90-225) shall submit a representative and viable sample of the initial culture to the Division
- 647 of Consolidated Laboratory Services or other laboratory designated by the board to
- 648 receive such specimen.)
- 649 Tularemia
- 650 Typhoid/Paratyphoid fever
- 651 Vancomycin-intermediate or vancomycin-resistant Staphylococcus aureus infection
- 652 Vibrio infection, including infections due to Photobacterium damsela and Grimontia
- 653 hollisae
- 654 Yersiniosis
- 655 Other diseases as may be requested by the health department

656 When a clinical specimen yields evidence indicating the presence of a select agent or toxin
 657 as defined by federal regulations in 42 CFR Part 73, the person in charge of the laboratory shall
 658 contact the Division of Consolidated Laboratory Services and arrange to forward an isolate for
 659 confirmation. If a select agent or toxin has been confirmed in a clinical specimen, the laboratory
 660 director shall consult with Division of Consolidated Laboratory Services or CDC regarding isolate
 661 transport or destruction.

662 Laboratories operating within a medical care facility shall be considered to be in compliance
 663 with the requirement to notify the local health department when the director of that medical care
 664 facility assumes the reporting responsibility; however, laboratories are still required to submit
 665 isolates to the Division of Consolidated Laboratory Services or other designated laboratory as
 666 noted in ~~this subsection~~ 12VAC5-90-80 D unless the laboratory has submitted an exemption
 667 request that has been approved by the department.

668 C. Persons in charge of a medical care facility. Any person in charge of a medical care facility
669 shall make a report to the local health department serving the jurisdiction where the facility is
670 located of the occurrence in or admission to the facility of a patient with a reportable disease listed
671 in 12VAC5-90-80 A unless he has evidence that the occurrence has been reported by a physician.
672 Any person making such report as authorized herein shall be immune from liability as provided
673 by § 32.1-38 of the Code of Virginia. The requirement to report shall include all inpatient,
674 outpatient, and emergency care departments within the medical care facility. Such report shall
675 contain the patient's name, address, age, date of birth, race, sex, and pregnancy status for
676 females; name of disease being reported; available laboratory tests and results; the date of
677 admission; hospital chart number; date expired (when applicable); and attending physician.
678 ~~Influenza should be reported by number of cases only (and type of influenza, if available). Reports~~
679 ~~shall be made within three days of the suspicion or confirmation of disease except that those~~
680 ~~identified in 12VAC5-90-80 C shall be reported immediately by the most rapid means available,~~
681 ~~preferably by telephone, the timeframes specified in 12VAC5-90-80 to the local health department~~
682 ~~serving the jurisdiction in which the facility is located. Reports shall be made on Form Epi-1, a~~
683 ~~computer generated printout containing the data items requested on Form Epi-1, via the~~
684 ~~Department of Health's online Confidential Morbidity Report portal~~
685 ~~(<http://www.vdh.virginia.gov/clinicians>), or a CDC or VDH disease-specific surveillance form that~~
686 ~~provides the same information. Reporting may be done by means of secure electronic~~
687 ~~transmission upon agreement of the medical care facility and the department.~~

688 A person in charge of a medical care facility may assume the reporting responsibility on behalf
689 of the director of the laboratory operating within the facility.

690 D. Persons in charge of a residential or day program, service, or facility licensed or operated
691 by any agency of the Commonwealth, or a school, child care center, or summer camp. Any person
692 in charge of a residential or day program, service, or facility licensed or operated by any agency
693 of the Commonwealth, or a school, child care center, or summer camp as defined in § 35.1-1 of
694 the Code of Virginia shall report immediately to the local health department the presence or
695 suspected presence in his program, service, facility, school, child care center, or summer camp
696 of persons who have common symptoms suggesting an outbreak situation. Such persons may
697 report additional information, including identifying and contact information for individuals with
698 communicable diseases of public health concern or individuals who are involved in outbreaks that
699 occur in their facilities, as necessary to facilitate public health investigation and disease control.
700 Any person so reporting shall be immune from liability as provided by § 32.1-38 of the Code of
701 Virginia.

702 E. Local health directors. The local health director shall forward any report of a disease or
703 report of evidence of a disease which has been made on a resident of his jurisdiction to the Office
704 of Epidemiology within three days of receipt. This report shall be submitted immediately by the
705 most rapid means available if the disease is one requiring rapid communication, as required in
706 12VAC5-90-80 C. All such rapid reporting shall be confirmed in writing and submitted to the Office
707 of Epidemiology, by either a paper report or entry into a shared secure electronic disease
708 surveillance system, within three days. Furthermore, the local health director shall immediately
709 forward to the appropriate local health director any disease reports on individuals residing in the
710 latter's jurisdiction or to the Office of Epidemiology on individuals residing outside Virginia. The
711 Office of Epidemiology shall be responsible for notifying other state health departments of
712 reported illnesses in their residents and for notifying CDC as necessary and appropriate.

713 F. Persons in charge of hospitals, nursing facilities or nursing homes, assisted living facilities,
714 and correctional facilities. In accordance with § 32.1-37.1 of the Code of Virginia, any person in
715 charge of a hospital, nursing facility or nursing home, assisted living facility, or correctional facility
716 shall, at the time of transferring custody of any dead body to any person practicing funeral
717 services, notify the person practicing funeral services or his agent if the dead person was known
718 to have had, immediately prior to death, an infectious disease which may be transmitted through
719 exposure to any bodily fluids. These include any of the following infectious diseases:

- 720 Creutzfeldt-Jakob disease
- 721 Human immunodeficiency virus (HIV) infection
- 722 Hepatitis B (acute and chronic)
- 723 Hepatitis C (acute and chronic)
- 724 Rabies
- 725 Smallpox (Variola virus)
- 726 Syphilis, infectious (Treponema pallidum)
- 727 Tuberculosis, active disease (Mycobacterium tuberculosis complex)
- 728 Vaccinia, disease or adverse event
- 729 Viral hemorrhagic fever

730 G. Employees, conditional employees, and persons in charge of food establishments.
731 12VAC5-421-80 of the Food Regulations requires a food employee or conditional employee to
732 notify the person in charge of the food establishment when diagnosed with certain diseases that
733 are transmissible through food and requires the person in charge of the food establishment to
734 notify the regulatory authority. Refer to 12VAC5-421-80 for further guidance and clarification
735 regarding these reporting requirements.

736 12VAC5-90-103. Isolation for communicable disease of public health threat.

737 A. Application. The commissioner, in his sole discretion, may invoke the provisions of Article
738 3.02 (§ 32.1-48.05 et seq.) of Chapter 2 of Title 32.1 of the Code of Virginia and may declare the
739 isolation of any individual or individuals upon a determination that:

- 740** 1. Such individual or individuals are known to have been infected with or are reasonably
741 suspected to have been infected with a communicable disease of public health threat;
- 742** 2. Exceptional circumstances render the procedures of Article 3.01 (§ 32.1-48.01 et seq.)
743 of Chapter 2 of Title 32.1 of the Code of Virginia to be insufficient, or the individual or
744 individuals have failed or refused to comply voluntarily with the control measures directed
745 by the commissioner in response to a communicable disease of public health threat; and
- 746** 3. Isolation is the necessary means to contain a communicable disease of public health
747 threat, to ensure that such isolated individual or individuals receive appropriate medical
748 treatment subject to the provisions of § 32.1-44 of the Code of Virginia, or to protect health
749 care providers and others who may come into contact with such infected individual or
750 individuals.

751 The commissioner, in his sole discretion, may also order the isolation of an affected area if, in
752 addition to the above, the Governor has declared a state of emergency for such affected area of
753 the Commonwealth.

754 B. Documentation. For isolation for a communicable disease of public health threat,
755 information about the infection or suspected infection, the individual, individuals, and/or affected
756 area, and the nature or suspected nature of the exposure shall be duly recorded by the local
757 health department in consultation with the Office of Epidemiology. This information shall be
758 sufficient to enable documenting a record of findings and to enable the commissioner to prepare
759 the order of isolation, including the information required in § 32.1-48.12 of the Code of Virginia. In
760 addition, sufficient information on individuals shall be maintained by the local health department
761 to enable appropriate follow-up of individuals for health status evaluation and treatment as well
762 as compliance with the order of isolation.

763 The commissioner shall ensure that the protected health information of any individual or
764 individuals subject to the order of isolation is disclosed only in compliance with state and federal
765 law.

766 C. Means of isolation. The local health department shall assess the situation, and in
767 consultation with the Office of Epidemiology, identify the least restrictive means of isolation that
768 effectively protects unexposed and susceptible individuals. The place of isolation selected shall
769 allow the most freedom of movement and communication with family members and other contacts

770 without allowing disease transmission to other individuals and shall allow the appropriate level of
771 medical care needed by isolated individuals to the extent practicable. The commissioner, in his
772 sole discretion, may order the isolated individual or individuals to remain in their residences, to
773 remain in another place where they are present, or to report to a place or places designated by
774 the commissioner for the duration of their isolation.

775 The commissioner's order of isolation shall be for a duration consistent with the known period
776 of communicability of the communicable disease of public health threat or, if the course of the
777 disease is unknown or uncertain, for a period anticipated as being consistent with the period of
778 communicability of other similar infectious agents. In the situation where an area is under
779 isolation, the duration of isolation shall take into account the transmission characteristics and
780 known or suspected period of communicability.

781 D. Delivery. The local health department shall deliver the order of isolation, or ensure its
782 delivery by an appropriate party such as a law-enforcement officer or health department
783 employee, to the affected individual or individuals in person to the extent practicable. If, in the
784 opinion of the commissioner, the scope of the notification would exceed the capacity of the local
785 health department to ensure individual notification in a timely manner, then print, radio, television,
786 Internet, and/or other available means shall be used to inform those affected.

787 E. Enforcement. ~~Upon finding that there is probable cause to believe that any individual or~~
788 ~~individuals who are subject to an order of isolation may fail or refuse to comply with such order,~~
789 ~~the commissioner in his sole discretion may include in the order a requirement that such individual~~
790 ~~or individuals are to be taken immediately into custody by law-enforcement agencies and detained~~
791 ~~for the duration of the order of isolation or until the commissioner determines that the risk of~~
792 ~~noncompliance is no longer present.~~ For any individual or individuals identified as, or for whom
793 probable cause exists that he may be, in violation of any order of isolation, or for whom probable
794 cause exists that he may fail or refuse to comply with any such order, the enforcement authority
795 directed by the commissioner to law-enforcement agencies shall include but need not be limited
796 to the power to detain or arrest.

797 Any individual or individuals so detained shall be held in the least restrictive environment that
798 can provide any required health care or other services for such individual. The commissioner shall
799 ensure that law-enforcement personnel responsible for enforcing an order or orders of isolation
800 are informed of appropriate measures to take to protect themselves from contracting the disease
801 of public health threat.

802 F. Health status monitoring. The local health department shall monitor the health of those
803 under isolation either by regular telephone calls, visits, self-reports, or by reports of caregivers or
804 healthcare providers or by other means.

805 G. Essential needs. Upon issuance of an order of isolation to an individual or individuals by
806 the commissioner, the local health department shall manage the isolation, in conjunction with local
807 emergency management resources, such that individual essential needs can be met to the extent
808 practicable. Upon issuance of an order of isolation by the commissioner for an affected area,
809 existing emergency protocols pursuant to Chapter 3.2 (§ 44-146.13 et seq.) of Title 44 of the Code
810 of Virginia shall be utilized for mobilizing appropriate resources to ensure essential needs are
811 met.

812 H. Appeals. Any individual or individuals subject to an order of isolation or a court-ordered
813 confirmation or extension of any such order may file an appeal of the order of isolation in
814 accordance with the provisions of § 32.1-48.13 of the Code of Virginia. An appeal shall not stay
815 any order of isolation.

816 I. Release from isolation. Once the commissioner determines that an individual or individuals
817 no longer pose a threat to the public health, the order of isolation has expired, or the order of
818 isolation has been vacated by the court, the individual or individuals under the order of isolation
819 shall be released immediately. If the risk of an infected individual transmitting the communicable
820 disease of public health threat to other individuals continues to exist, an order of isolation may be
821 developed to extend the restriction prior to release from isolation.

822 J. Affected area. If the criteria in subsection A of this section are met and an area is known or
823 suspected to have been affected, then the commissioner shall notify the Governor of the situation
824 and the need to order isolation for the affected area during the known or suspected time of
825 exposure. In order for an affected area to be isolated, the Governor must declare a state of
826 emergency for the affected area.

827 If an order of isolation is issued for an affected area during the known or suspected time of
828 exposure, the commissioner shall cause the order of isolation to be communicated to the
829 individuals residing or located in the affected area. The use of multiple forms of communication,
830 including but not limited to radio, television, internet, and/or other available means, may be
831 required in order to reach the individuals who were in the affected area during the known or
832 suspected time of exposure.

833 The provisions for documentation, means of isolation, enforcement, health status monitoring,
834 essential needs, and release from isolation described above will apply to the isolation of affected
835 areas. Appropriate management of a disease of public health threat for an affected area may

836 require the coordinated use of local, regional, state, and national resources. In specifying one or
837 more affected areas to be placed under isolation, the objective will be to protect as many people
838 as possible using the least restrictive means. As a result, defining the precise boundaries and
839 time frame of the exposure may not be possible, or may change as additional information
840 becomes available. When this occurs, the commissioner shall ensure that the description of the
841 affected area is in congruence with the Governor's declaration of emergency and shall ensure
842 that the latest information is communicated to those in or exposed to the affected area.

843 **12VAC5-90-107. Quarantine.**

844 A. Application. The commissioner, in his sole discretion, may invoke the provisions of Article
845 3.02 (§ 32.1-48.05 et seq.) of Chapter 2 of Title 32.1 of the Code of Virginia and may order a
846 complete or modified quarantine of any individual or individuals upon a determination that:

- 847 1. Such individual or individuals are known to have been exposed to or are reasonably
848 suspected to have been exposed to a communicable disease of public health threat;
- 849 2. Exceptional circumstances render the procedures of Article 3.01 (§ 32.1-48.01 et seq.)
850 of Chapter 2 of Title 32.1 of the Code of Virginia to be insufficient, or the individual or
851 individuals have failed or refused to comply voluntarily with the control measures directed
852 by the commissioner in response to a communicable disease of public health threat; and
- 853 3. Quarantine is the necessary means to contain a communicable disease of public health
854 threat to which an individual or individuals have been or may have been exposed and thus
855 may become infected.

856 The commissioner, in his sole discretion, may also order the quarantine of an affected area if,
857 in addition to the above, the Governor has declared a state of emergency for such affected area
858 of the Commonwealth.

859 B. Documentation. For quarantine for a communicable disease of public health threat,
860 information about the infection or suspected infection; the individual, individuals, and/or affected
861 area; and the nature or suspected nature of the exposure shall be duly recorded by the local
862 health department, in consultation with the Office of Epidemiology. This information shall be
863 sufficient to enable documenting a record of findings and enable the commissioner to prepare a
864 written order of quarantine, including the information required in § 32.1-48.09 of the Code of
865 Virginia. In addition, sufficient information on individuals shall be maintained by the local health
866 department to enable appropriate follow-up of individuals for health status evaluation and
867 treatment as well as compliance with the order of quarantine.

868 The commissioner shall ensure that the protected health information of any individual or
869 individuals subject to the order of quarantine is disclosed only in compliance with state and federal
870 law.

871 C. Means of quarantine. The local health department shall assess the situation, and in
872 consultation with the Office of Epidemiology, shall recommend to the commissioner the least
873 restrictive means of quarantine that effectively protects unexposed and susceptible individuals.
874 The place of quarantine selected shall allow the most freedom of movement and communication
875 with family members and other contacts without allowing disease transmission to others.

876 The commissioner, in his sole discretion, may order the quarantined individual or individuals
877 to remain in their residences, to remain in another place where they are present, or to report to a
878 place or places designated by the commissioner for the duration of their quarantine.

879 The commissioner's order of quarantine shall be for a duration consistent with the known
880 incubation period of the communicable disease of public health threat or, if the incubation period
881 is unknown or uncertain, for a period anticipated as being consistent with the incubation period
882 for other similar infectious agents. In the situation where an area is under quarantine, the duration
883 of quarantine shall take into account the transmission characteristics and known or suspected
884 incubation period.

885 D. Delivery. The local health department shall deliver the order of quarantine, or ensure its
886 delivery by an appropriate party such as a law-enforcement officer or health department
887 employee, to the affected individual or individuals in person to the extent practicable. If, in the
888 opinion of the commissioner, the scope of the notification would exceed the capacity of the local
889 health department to ensure notification in a timely manner, then print, radio, television, Internet,
890 and/or other available means shall be used to inform those affected.

891 E. Enforcement. ~~Upon finding that there is probable cause to believe that any individual or~~
892 ~~individuals who are subject to an order of quarantine may fail or refuse to comply with such order,~~
893 ~~the commissioner in his sole discretion may include in the order a requirement that such individual~~
894 ~~or individuals are to be taken immediately into custody by law enforcement agencies and detained~~
895 ~~for the duration of the order of quarantine or until the commissioner determines that the risk of~~
896 ~~and from noncompliance is no longer present.~~ For any individual or individuals identified as, or for
897 whom probable cause exists that he may be, in violation of any order of quarantine, or for whom
898 probable cause exists that he may fail or refuse to comply with any such order, the enforcement
899 authority directed by the commissioner to law-enforcement agencies shall include but need not
900 be limited to the power to detain or arrest.

901 Any individual or individuals so detained shall be held in the least restrictive environment that
902 can provide any required health care or other services for such individual. The commissioner shall
903 ensure that law-enforcement personnel responsible for enforcing an order or orders of quarantine
904 are informed of appropriate measures to take to protect themselves from contracting the disease
905 of public health threat.

906 F. Health status monitoring. The local health department shall monitor the health of those
907 under quarantine either by regular telephone calls, visits, self-reports, or by reports of caregivers
908 or healthcare providers or by other means. If an individual or individuals develop symptoms
909 compatible with the communicable disease of public health threat, then 12VAC5-90-103 would
910 apply to the individual or individuals.

911 G. Essential needs. Upon issuance of an order of quarantine to an individual or individuals by
912 the commissioner, the local health department shall manage the quarantine, in conjunction with
913 local emergency management resources, such that individual essential needs can be met to the
914 extent practicable. Upon issuance of an order of quarantine by the commissioner for an affected
915 area, existing emergency protocols pursuant to Chapter 3.2 (§ 44-146.13 et seq.) of Title 44 of
916 the Code of Virginia shall be utilized for mobilizing appropriate resources to ensure essential
917 needs are met.

918 H. Appeals. Any individual or individuals subject to an order of quarantine or a court-ordered
919 confirmation or extension of any such order may file an appeal of the order of quarantine in
920 accordance with the provisions of § 32.1-48.10 of the Code of Virginia. An appeal shall not stay
921 any order of quarantine.

922 I. Release from quarantine. Once the commissioner determines that an individual or
923 individuals are no longer at risk of becoming infected and pose no risk of transmitting the
924 communicable disease of public health threat to other individuals, the order of quarantine has
925 expired, or the order of quarantine has been vacated by the court, the individuals under the order
926 of quarantine shall be released immediately. If the risk of an individual becoming infected and
927 transmitting the communicable disease of public health threat to other individuals continues to
928 exist, an order of quarantine may be developed to extend the restriction prior to release from
929 quarantine.

930 J. Affected area. If the criteria in subsection A of this section are met and an area is known or
931 suspected to have been affected, then the commissioner shall notify the Governor of the situation
932 and the need to order quarantine for the affected area. In order for an affected area to be
933 quarantined, the Governor must declare a state of emergency for the affected area.

934 If an order of quarantine is issued for an affected area, the commissioner shall cause the order
935 of quarantine to be communicated to the individuals residing or located in the affected area. The
936 use of multiple forms of communication, including but not limited to radio, television, Internet,
937 and/or other available means, may be required in order to reach the individuals who were in the
938 affected area during the known or suspected time of exposure.

939 The provisions for documentation, means of quarantine, enforcement, health status
940 monitoring, essential needs, and release from quarantine described above will apply to the
941 quarantine of affected areas. Appropriate management of a disease of public health threat for an
942 affected area may require the coordinated use of local, regional, state, and national resources. In
943 specifying one or more affected areas to be placed under quarantine, the objective will be to
944 protect as many people as possible using the least restrictive means. As a result, defining the
945 precise boundaries and time frame of the exposure may not be possible, or may change as
946 additional information becomes available. When this occurs, the commissioner shall ensure that
947 the description of the affected area is in congruence with the Governor's declaration of emergency
948 and shall ensure that the latest information is communicated to those in or exposed to the affected
949 area.

Part VII

Prevention of Blindness from Ophthalmia Neonatorum

950 **12VAC5-90-140. Procedure for preventing ophthalmia neonatorum.**

951 The physician, nurse, or midwife in charge of the infant's care after delivery of a baby shall
952 ensure that ~~one of the following is administered in each eye of that newborn baby as soon as~~
953 ~~possible after birth: (i) two drops of a 1.0% silver nitrate solution; (ii) a 1-cm ribbon of 1.0%~~
954 ~~tetracycline ophthalmic ointment; or (iii) a 1-cm ribbon of 0.5% erythromycin ophthalmic ointment~~
955 is administered in each eye of that newborn baby as soon as possible. This treatment shall be
956 recorded in the medical record of the infant.

957 _____

Part X

Protocol for Identification of Children with Elevated Blood Lead Levels

958 **12VAC5-90-215. Schedule and criteria for and confirmation of blood lead testing and** 959 **information to be provided.**

960 A. Schedule for testing. Every child shall be tested to determine the blood lead level at 12
961 months and 24 months of age if the health care provider determines that the child meets any of
962 the criteria listed in subsection B of this section. Children 25 months through 72 months of age
963 who present for medical care and meet any of criteria of subsection B of this section shall also be

964 tested if they have either not previously been tested for blood lead level or were previously tested
965 but experienced a change since testing that has resulted in an increased risk of lead exposure
966 based on the criteria listed in subsection B of this section.

967 B. Criteria for testing.

- 968 1. The child is eligible for or receiving benefits from Medicaid or the Special Supplemental
969 Nutrition Program for Women, Infants and Children (WIC);
- 970 2. The child is living in or regularly visiting a house, apartment, dwelling, structure, or child
971 care facility built before ~~1960~~1950;
- 972 3. The child is living in or regularly visiting a house, apartment, dwelling, structure, or child
973 care facility built before 1978 that has (i) peeling or chipping paint or (ii) recent (within the
974 last six months) ongoing or planned renovations;
- 975 4. The child is living in or regularly visiting a house, apartment, dwelling, or other structure
976 in which one or more persons have blood lead testing yielding evidence of lead exposure;
- 977 5. The child is living with an adult whose job, hobby, or other activity involves exposure to
978 lead;
- 979 6. The child is living near an active lead smelter, battery recycling plant, or other industry
980 likely to release lead;
- 981 7. The child's parent, guardian, or other person standing in loco parentis requests the
982 child's blood be tested due to any suspected exposure; or
- 983 8. The child is a recent refugee or immigrant or is adopted from outside of the United
984 States.

985 C. Exceptions. A child who does not meet any of the schedule or criteria provided in
986 subsection A or B of this section is considered to be at low risk, and testing is not required but
987 may be conducted at the discretion of the health care provider. The testing requirement shall be
988 waived if the parent, guardian, or other person standing in loco parentis of a child objects to the
989 testing on the basis that the procedure conflicts with his religious tenets or practices.

990 D. Confirmation of blood lead levels. Blood lead level testing shall be performed on venous or
991 capillary blood. Tests of venous blood performed by a laboratory certified by the federal Centers
992 for Medicare & Medicaid Services in accordance with 42 USC § 263a, the Clinical Laboratory
993 Improvement Amendment of 1988 (CLIA-certified), are considered confirmatory. Tests of venous
994 blood performed by any other laboratory and tests of capillary blood shall be confirmed by a repeat
995 blood test, preferably venous, performed by a CLIA-certified laboratory. Such confirmatory testing
996 shall be performed in accordance with the following schedule:

- 997 1. Confirmatory testing is not required if the result of the capillary test is below CDC's
 998 reference value.
- 999 4.2. Within one to three months if the result of the capillary test is at or above the CDC's
 1000 reference value and up to 9 micrograms of lead per deciliter of whole blood (µg/dL).
- 1001 2.3. Within one week to one month if the result of the capillary test is 10-44 µg/dL. The
 1002 higher this test result, the more urgent the need for a confirmatory test.
- 1003 3.4. Within 48 hours if the result of the capillary test is 45-59 µg/dL.
- 1004 4.5. Within 24 hours if the result of the capillary test is 60-69 µg/dL.
- 1005 5.6. Immediately as an emergency laboratory test if the result of the capillary test is 70
 1006 µg/dL or higher.
- 1007 E. Information to be provided. As part of regular well-check visits for all children, the health
 1008 care provider shall make available to parents, guardians, or other persons standing in loco
 1009 parentis information on the dangers of lead poisoning, potential sources of lead and ways to
 1010 prevent exposure, and a list of available lead-related resources. When blood lead level testing is
 1011 performed, the health care provider shall share the child's blood lead level test result with the
 1012 child's parent, guardian, or other person standing in loco parentis and report to the local health
 1013 department in accordance with the requirements of 12VAC5-90-80.

Part XI

Tuberculosis Control

1014 **12VAC5-90-225. Additional data to be reported related to persons with active tuberculosis** 1015 **disease (confirmed or suspected).**

- 1016 A. Physicians and directors of medical care facilities are required to submit all of the following:
- 1017 1. An initial report to be completed when there are reasonable grounds to suspect that a
 1018 person has active TB disease, but no later than when antituberculosis drug therapy is
 1019 initiated. The reports must include the following: the affected person's name; age; date of
 1020 birth; gender; address; pertinent clinical, radiographic, microbiologic and pathologic
 1021 reports, whether pending or final; such other information as may be needed to locate the
 1022 patient for follow-up; and name, address, and telephone number of the treating physician.
- 1023 2. A secondary report to be completed simultaneously or within one to two weeks following
 1024 the initial report. The report must include: the date, method, and results of ~~tuberculin skin~~
 1025 ~~test (TST)~~ tests for tuberculosis infection; the date and results of the initial and any follow-
 1026 up chest radiographs; the dates and results of bacteriologic or pathologic testing, the
 1027 antituberculosis drug regimen, including names of the drugs, dosages and frequencies of
 1028 administration, and start date; the date and results of drug susceptibility testing; HIV

1029 status; contact screening information; and name, address, and telephone number of
1030 treating physician.

1031 3. Subsequent reports are to be made when updated information is available. Subsequent
1032 reports are required when: clinical status changes, the treatment regimen changes;
1033 treatment ceases for any reason; or there are any updates to laboratory results, treatment
1034 adherence, name, address, and telephone number of current provider, patient location or
1035 contact information, or other additional clinical information.

1036 4. Physicians and/or directors of medical care facilities responsible for the care of a patient
1037 with active tuberculosis disease are required to develop and maintain a written treatment
1038 plan. This plan must be in place no later than the time when antituberculosis drug therapy
1039 is initiated. Patient adherence to this treatment plan must be documented. The treatment
1040 plan and adherence record are subject to review by the local health director or his
1041 designee at any time during the course of treatment.

1042 5. The treatment plan for the following categories of patients must be submitted to the
1043 local health director or his designee for approval no later than the time when
1044 antituberculosis drug therapy is started or modified:

1045 a. For individuals who are inpatients or incarcerated, the responsible provider or facility
1046 must submit the treatment plan for approval prior to discharge or transfer.

1047 b. Individuals, whether inpatient, incarcerated, or outpatient, who also have one of the
1048 following conditions:

1049 (1) HIV infection.

1050 (2) Known or suspected active TB disease resistant to rifampin, rifabutin, rifapentine
1051 or other rifamycin with or without resistance to any other drug.

1052 (3) A history of prior treated or untreated active TB disease, or a history of relapsed
1053 active TB disease.

1054 (4) A demonstrated history of nonadherence to any medical treatment regimen.

1055 B. Laboratories are required to submit the following:

1056 1. Results of smears that are positive for acid fast bacilli.

1057 2. Results of cultures positive for any member of the Mycobacterium tuberculosis complex
1058 (i.e., *M. tuberculosis*, *M. bovis*, *M. africanum*) or any other mycobacteria.

1059 3. Results of rapid methodologies, including acid hybridization or nucleic acid
1060 amplification, which are indicative of *M. tuberculosis* complex or any other mycobacteria.

1061 4. Results of tests for antimicrobial susceptibility performed on cultures positive for
1062 ~~tubercle bacilli~~ *M. tuberculosis* complex.

1063 5. Results of tests for tuberculosis infection.
1064 ~~5.6.~~ Laboratories, whether testing is done in-house or referred to an out-of-state
1065 laboratory, shall submit a representative and viable sample of the initial culture positive
1066 for any member of the M. tuberculosis complex to the Virginia Division of Consolidated
1067 Laboratory Services or other laboratory designated by the board to receive such
1068 specimen.

Part XIII

Reporting of Dangerous Microbes and Pathogens

1069 **12VAC5-90-280. Reporting of dangerous microbes and pathogens.**

1070 A. Definitions. The following words and terms when used in this part shall have the following
1071 meanings unless the context clearly indicates otherwise:

1072 ~~"Biologic agent" means any microorganism (including, but not limited to, bacteria, viruses,~~
1073 ~~fungi, rickettsiae, or protozoa), or infectious substance, or any naturally occurring, bioengineered,~~
1074 ~~or synthesized component of any such microorganism or infectious substance, capable of causing~~
1075 ~~death, disease, or other biological malfunction in a human, an animal, a plant, or other living~~
1076 ~~organism; deterioration of food, water, equipment, supplies, or material of any kind; or deleterious~~
1077 ~~alteration of the environment.~~

1078 ~~"CDC" means the Centers for Disease Control and Prevention of the U.S. Department of~~
1079 ~~Health and Human Services.~~

1080 ~~"Diagnosis" means the analysis of specimens for the purpose of identifying or confirming the~~
1081 ~~presence or characteristics of a select agent or toxin, provided that such analysis is directly related~~
1082 ~~to protecting the public health or safety.~~

1083 ~~"Proficiency testing" means a sponsored, time-limited analytical trial whereby one or more~~
1084 ~~analytes, previously confirmed by the sponsor, are submitted to the testing laboratory for analysis~~
1085 ~~and where final results are graded, scores are recorded and provided to participants, and scores~~
1086 ~~for participants are evaluated.~~

1087 ~~"Responsible official" means any person in charge of directing or supervising a laboratory~~
1088 ~~conducting business in the Commonwealth of Virginia. At colleges and universities, the~~
1089 ~~responsible official shall be the president of the college or university or his designee. At private,~~
1090 ~~state, or federal organizations, the responsible official shall be the laboratory director or a chief~~
1091 ~~officer of the organization or his designee.~~

1092 "Select agent or toxin" or "select agent and toxin" means all those biological agents or toxins
1093 as defined by federal regulations in 42 CFR Part 73, including Health and Human Services select

1094 agents and toxins and overlap select agents and toxins. “Dangerous microbes and pathogens”
1095 will be known as “select agents and toxins”.

1096 "Toxin" means the toxic material or product of plants, animals, microorganisms (including but
1097 not limited to bacteria, viruses, fungi, rickettsiae, or protozoa); or infectious substances; or a
1098 recombinant or synthesized molecule, whatever the origin and method of production; and includes
1099 any poisonous substance or biological product that may be engineered as a result of
1100 biotechnology or produced by a living organism; or any poisonous isomer or biological product,
1101 homolog, or derivative of such a substance.

1102 "Verification" means the process required to assure the accuracy, precision, and the analytical
1103 sensitivity and specificity of any procedure used for diagnosis.

1104 B. Administration. ~~The dangerous microbes and pathogens will be known as "select agents~~
1105 ~~and toxins." The select agent and toxin registry will be maintained by the Virginia Department of~~
1106 ~~Health, Office of Epidemiology, Division of Surveillance and Investigation.~~

1107 C. Reportable agents. ~~The board declares the select agents and toxins and overlap select~~
1108 ~~agents and toxins outlined in 42 CFR Part 73 to be reportable and adopts it herein by reference~~
1109 ~~including subsequent amendments and editions. The select agents and toxins are to be reportable~~
1110 ~~by the persons enumerated in subsection F of this section.~~

1111 ~~D.B. Items to report. Each report shall be made on a form determined by the department and~~
1112 ~~shall contain the following: name, source and characterization information on select agents and~~
1113 ~~toxins and quantities held; objectives of the work with the agent; location (including building and~~
1114 ~~room) where each select agent or toxin is stored or used; identification information of persons~~
1115 ~~with access to each agent; identification information of the person in charge of each of the agents;~~
1116 ~~and the name and address of the laboratory and the name, position and identification information~~
1117 ~~of one responsible official as a single point of contact for the organization. The report shall also~~
1118 ~~indicate whether the laboratory is registered with the CDC Select Agent Program and may contain~~
1119 ~~additional information as required by 42 CFR Part 73 or the department.~~

1120 ~~E.C. Timing of reports. Reports shall be made to the department within seven calendar days~~
1121 ~~of submission of an application to the CDC Select Agent Program. By January 31 of every year,~~
1122 ~~laboratoriesthe responsible official at a laboratory as designated by the federal select agent~~
1123 ~~program shall provide a written update to the department, which shall include a copy of the federal~~
1124 ~~registration certificate received through the CDC Select Agent ProgramDivision of Surveillance~~
1125 ~~and Investigation in the Office of Epidemiology containing the information specified in subsection~~

1126 B.

1127 ~~In the event that a select agent or toxin that has previously been reported to the department~~
1128 ~~is destroyed, a copy of federal forms addressing the destruction of the select agent or toxin must~~
1129 ~~be submitted to the department within seven calendar days of submission to the CDC Select~~
1130 ~~Agent Program.~~

1131 ~~In the event that a select agent or toxin, or a specimen or isolate from a specimen containing~~
1132 ~~a select agent or toxin, has previously been reported to the department and is subsequently~~
1133 ~~transferred to a facility eligible for receiving the items, a copy of federal forms addressing the~~
1134 ~~transfer of the select agent or toxin must be submitted to the department within seven calendar~~
1135 ~~days of submission to the CDC Select Agent Program.~~

1136 In the event of a suspected release, loss, or theft of any select agent or toxin, the responsible
1137 official at a laboratory as designated by the federal select agent program shall make a report to
1138 the department immediately by the most rapid means available, preferably by telephone. The
1139 report shall be submitted to the Division of Surveillance and Investigation in the Office of
1140 Epidemiology. The rapid report shall be followed up by a written report within seven calendar days
1141 and shall include the following information:

- 1142 1. The name of the biologic agent and any identifying information (e.g., strain or other
1143 characterization information);
- 1144 2. An estimate of the quantity released, lost, or stolen;
- 1145 3. An estimate of the time during which the release, loss, or theft occurred; and
- 1146 4. The location (building, room) from or in which the release, loss, or theft occurred. The
1147 report may contain additional information as required by 42 CFR Part 73 or the
1148 department.

1149 If a release has occurred, the report shall also include the nature, environment, and location
1150 of the release; number, names, and position of exposed individuals; and actions taken as a result
1151 of the release.

1152 ~~The department shall be notified in writing of any change to information previously submitted~~
1153 ~~to the department. If a new application or an amendment to an existing application is filed with~~
1154 ~~the CDC Select Agent Program, a copy of the application or amendment shall be submitted to the~~
1155 ~~department within seven calendar days of submission to the CDC Select Agent Program.~~

1156 ~~F. Those required to report. The laboratory director shall be responsible for annual reporting~~
1157 ~~of select agents and toxins to the Virginia Department of Health and for the reporting of any~~
1158 ~~changes within the time periods as specified within these regulations. Such reports shall be made~~
1159 ~~on forms to be determined by the department. Any person making such reports as authorized~~
1160 ~~herein shall be immune from liability as provided by § 32.1-38 of the Code of Virginia.~~

1161 ~~G. Exemption from reporting. A person who detects a select agent or toxin for the purpose of~~
1162 ~~diagnosing a disease, verification, or proficiency testing and either transfers the specimens or~~
1163 ~~isolates containing the select agent or toxin to a facility eligible for receiving them or destroys~~
1164 ~~them on site is not required to make a report except as required by 12VAC5-90-80 and 12VAC5-~~
1165 ~~90-90. Proper destruction of the agent shall take place through autoclaving, incineration, or by a~~
1166 ~~sterilization or neutralization process sufficient to cause inactivation. The transfer or destruction~~
1167 ~~shall occur within seven calendar days after identification of a select agent or toxin used for~~
1168 ~~diagnosis or testing and within 90 calendar days after receipt for proficiency testing.~~

1169 ~~Any additional exemptions from reporting under 42 CFR Part 73, including subsequent~~
1170 ~~amendments and editions, are also exempt from reporting under this regulation; however, the~~
1171 ~~department shall be notified of the exemption by submitting a copy of federal forms addressing~~
1172 ~~the exemption within seven calendar days of submission to the CDC Select Agent Program.~~

1173 H.D. Release of reported information. Reports submitted to the select agent and toxin registry
1174 shall be confidential and shall not be a public record pursuant to the Freedom of Information Act,
1175 regardless of submitter. Release of information on select agents or toxins shall be made only by
1176 order of the State Health Commissioner to the CDC and state and federal law-enforcement
1177 agencies in any investigation involving the release, theft, or loss of a select agent or toxin required
1178 to be reported to the department under this regulation. Any person making such reports as
1179 authorized herein shall be immune from liability as provided by § 32.1-38 of the Code of Virginia.

Part XIV

Reporting of Healthcare-Associated Infections

1180 **12VAC5-90-370. Reporting of healthcare-associated infections.**

1181 A. Reportable infections. ~~Facilities~~Acute care hospitals that report data into the Centers for
1182 Disease Control and Prevention's National Healthcare Safety Network (NHSN) ~~for~~as a
1183 requirement of the Centers for Medicare and Medicaid Services ~~Hospital Inpatient Quality~~
1184 ~~Reporting Program~~ shall share the data, through the NHSN, with the department.

1185 B. Liability protection and data release. Any person making such report as authorized herein
1186 shall be immune from liability as provided by § 32.1-38 of the Code of Virginia. Infection rate data
1187 may be released to the public by the department upon request. Data shall be aggregated to
1188 ensure that no individual patient may be identified.

- 1189
- 1190 FORMS (12VAC5-90)
- 1191 [Confidential Morbidity Report, Epi-1 \(rev. 10/2011\)](#)
- 1192 ~~Virginia Cancer Registry Reporting Form (rev. 1/1998)~~



COMMONWEALTH of VIRGINIA

Department of Health

M. NORMAN OLIVER, MD, MA
STATE HEALTH COMMISSIONER

PO BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

MEMORANDUM

DATE: August 20, 2018

TO: Virginia State Board of Health

FROM: Laurie Forlano, DO, MPH
State Epidemiologist & Director, Office of Epidemiology

SUBJECT: Fast Track Regulation: Recreational Water Advisories

The agency is proposing to establish regulations within the Virginia Administrative Code to establish the Virginia Department of Health's (VDH) role in issuing and lifting recreational water advisories based on the Beach Action Value (BAV). This regulatory action is necessary to comply with a forthcoming change in the Department of Environmental Quality's (DEQ) regulation 9VAC25-260-170.

DEQ is promulgating a revision of this regulation which would remove 9VAC25-260-170(A)(5) which reads:

“For beach advisories or closures, a single sample maximum of 235 E. coli CFU/100 ml in freshwater and a single sample maximum of 104 enterococci CFU/100 ml in saltwater and transition zones shall apply.”

In order for VDH to continue to manage beach advisories in recreational water, promulgation of the proposed regulation is necessary in the Department of Health section of the Virginia Administrative Code. The proposed regulation will be promulgated in 12VAC5-135.

The Board of Health is requested to approve the fast track regulation. Should the Board of Health approve the regulation, it will be submitted to the Office of the Attorney General to begin the executive branch review process, as specified by the Administrative Process Act. Following executive branch review and approval, the regulation will be published in the Virginia Register of Regulations and on the Virginia Regulatory Town Hall website. The regulation will become effective 45-days following publication in the Virginia Register of Regulations.



townhall.virginia.gov

Fast-Track Regulation Agency Background Document

Agency name	Virginia Department of Health
Virginia Administrative Code (VAC) citation(s)	12VAC5-135
Regulation title(s)	Recreational Water Advisories
Action title	Establish Regulations for Recreational Water
Date this document prepared	8/20/18

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

Regulations will be promulgated within the Virginia Administrative Code to establish the Virginia Department of Health's (VDH) role in issuing and lifting recreational water advisories based on the Beach Action Value (BAV). The BAV is the concentration of an indicator organism equal to or above which beach advisories shall be issued and below which beach advisories shall be lifted. The regulation will include procedures for issuing and lifting beach advisories. Currently, beach advisories are issued by VDH, however, the authority lies within the Department of Environmental Quality's (DEQ) regulation 9VAC25-260-170. DEQ is promulgating a revision of this regulation which would remove 9VAC25-260-170(A)(5) which reads:

"For beach advisories or closures, a single sample maximum of 235 E. coli CFU/100 ml in freshwater and a single sample maximum of 104 enterococci CFU/100 ml in saltwater and transition zones shall apply."

In order for VDH to continue to manage beach advisories in recreational water, promulgation of the proposed regulation is necessary in the VDH section of the Virginia Administrative Code. The proposed regulation will be promulgated in 12VAC5-135. Substantive changes include the removal of individual

reference values for the single sample maximum (235 *E. coli* CFU/100 ml in freshwater and 104 enterococci CFU/100 ml in saltwater and transition zones) and establishing in the new regulation reference to a BAV. The BAV will be maintained in the VDH Beach Monitoring and Notification Protocol. The BAV threshold is set at 104 enterococci CFU/100 ml in salt water and transition zones. There is no established VDH monitoring protocol for *E. coli* in recreational fresh water for the issuance of advisories.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the “Definition” section of the regulations.

- VDH – Virginia Department of Health
- DEQ – Department of Environmental Quality
- BAV – Beach Action Value
- VAC – Virginia Administrative Code
- CFU – Colony Forming Units

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

Mandate and Impetus

Please identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, petition for rulemaking, periodic review, board decision, etc.). For purposes of executive branch review, “mandate” has the same meaning as defined in Executive Order 14 (as amended, July 16, 2018), “a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part.”

As required by Virginia Code § 2.2-4012.1, please also explain why this rulemaking is expected to be noncontroversial and therefore appropriate for the fast-track process.

This regulatory action was initiated as the result of a board decision in response to an action by DEQ. The DEQ Regulatory Advisory Panel (RAP), which included representatives of VDH, other local and state agencies, and non-profit organizations, reached consensus on the removal of the beach advisory and closure language provided VDH promulgated regulations in the Virginia Administrative Code to manage beach advisories in recreational water. VDH does not expect this rulemaking to be controversial. Further, promulgation of this regulation will not result in any changes to the current practice of issuing and lifting recreational water advisories, other than it is moving from one VAC chapter to another and adding procedures for issuing and lifting beach advisories.

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of

Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity's overall regulatory authority.

Statutory authority to promulgate these regulations is granted to the State Board of Health pursuant to Va. Code §§ 32.1-2, 32.1-12, and 32.1-23 of the Code of Virginia.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it's intended to solve.

This regulation is necessary to ensure the continued public notification whenever there is a higher risk of illness when swimming in public beach water. VDH participated in a RAP with DEQ to amend regulations in 9VAC25-260-170. The RAP participants came to the consensus that DEQ would eliminate regulatory language related to issuing beach advisories and closures, given this is a primary function of VDH's Beach Monitoring and Notification Program. In order for VDH to continue to manage beach advisories in recreational water, promulgation of the proposed regulation is necessary in the VDH section of the Virginia Administrative Code. The proposed regulation will be promulgated in 12VAC5-135.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the "Detail of Changes" section below.

DEQ is promulgating a revision to repeal 9VAC25-260-170(A)(5) which reads:

*"For beach advisories or closures, a single sample maximum of 235 *E. coli* CFU/100 ml in freshwater and a single sample maximum of 104 enterococci CFU/100 ml in saltwater and transition zones shall apply."*

In order for VDH to continue to manage beach advisories in recreational water, promulgation of the proposed regulation is necessary in the VDH section of the Virginia Administrative Code. While VDH is maintaining the principle of the DEQ regulation, there are some minor differences as well as the establishment of procedures for issuing and lifting beach advisories. Substantive changes include the removal of individual reference values for the single sample maximum (235 *E. coli* CFU/100 ml in freshwater and 104 enterococci CFU/100 ml in saltwater and transition zones). The VDH regulation will instead use a BAV. The BAV is set at 104 enterococci CFU/100 ml in salt water and transition zones. There is no established VDH monitoring protocol for *E. coli* in recreational fresh water for the issuance of advisories. Further, through promulgation of this regulation, VDH will establish procedures for issuing and lifting beach advisories. The VDH Beach Monitoring and Notification Program, funded by the United State Environmental Protection Agency BEACH Act Grant, requires the use of a BAV. The BAV is contained within the VDH Beach Monitoring and Notification Protocol. The proposed regulation will direct readers to the Protocol.

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the

Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

- 1) The primary advantage to the public is that VDH currently has this authority through 9VAC25-260-170(A)(5) and therefore, there will be no additional impact to the management of recreational water advisories.
- 2) There are no known disadvantages to promulgating this regulation.
- 3) There are no other pertinent matters of interest to the regulated community, government officials, and the public.

Requirements More Restrictive than Federal

Please identify and describe any requirement of the regulatory change which is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

There are no requirements in this proposal that that more restrictive than applicable federal requirements.

Agencies, Localities, and Other Entities Particularly Affected

Please identify any other state agencies, localities, or other entities particularly affected by the regulatory change. "Particularly affected" are those that are likely to bear any identified disproportionate material impact which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected

None

Localities Particularly Affected

Currently, localities that participate in the VDH Beach Monitoring and Notification Program are provided guidance on the procedures of issuing and lifting beach advisories. The establishment of this regulation will require those same actions by law. Localities which participate in the program include Gloucester, Mathews, Hampton, Newport News, York, Norfolk, Virginia Beach, Northumberland, and Accomack.

Other Entities Particularly Affected

None

Economic Impact

Pursuant to § 2.2-4007.04 of the Code of Virginia, please identify all specific economic impacts (costs and/or benefits), anticipated to result from the regulatory change. When describing a particular economic

impact, specify which new requirement or change in requirement creates the anticipated economic impact. Please keep in mind that this is change versus the status quo.

Impact on State Agencies

<i>For your agency:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including: a) fund source / fund detail; b) delineation of one-time versus on-going expenditures; and c) whether any costs or revenue loss can be absorbed within existing resources	There will be no fiscal impact.
<i>For other state agencies:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including a delineation of one-time versus on-going expenditures.	There will be no fiscal impact.
<i>For all agencies:</i> Benefits the regulatory change is designed to produce.	Continued management of beach advisories in recreational water.

Impact on Localities

Projected costs, savings, fees or revenues resulting from the regulatory change.	There will be no fiscal impact.
Benefits the regulatory change is designed to produce.	Continued management of beach advisories in recreational water.

Impact on Other Entities

Description of the individuals, businesses, or other entities likely to be affected by the regulatory change. If no other entities will be affected, include a specific statement to that effect.	There will be no individuals, businesses, or other entities affected by the new regulation.
Agency's best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that: a) is independently owned and operated and; b) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.	Zero.
All projected costs for affected individuals, businesses, or other entities resulting from the regulatory change. Please be specific and include all costs including, but not limited to: a) projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the regulatory change; c) fees;	VDH projects no additional costs as a result of this regulation. Changes will not place any additional reporting or record keeping requirements upon individuals, businesses, or other entities.

d) purchases of equipment or services; and e) time required to comply with the requirements.	
Benefits the regulatory change is designed to produce.	The agency that is responsible for administering recreational water advisories will maintain the authority for the regulation and will have greater flexibility in the management of advisory thresholds within programmatic protocols.

Alternatives

Please describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

There is no alternative given that VDH is the sole administrator of the Beach Monitoring and Notification Program.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

The Commonwealth has no other authority or alternatives present to manage recreational water advisories given the pending removal of DEQ’s 9VAC25-260-170(A)(5). This regulation is necessary to ensure the continued public notification whenever there is a higher risk of illness when swimming in public beach water.

Public Participation

If an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, the agency shall: 1) file notice of the objections with the Registrar of Regulations for publication in the Virginia Register; and 2) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.

Detail of Changes

Please list all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation.

If the regulatory change will be a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory change. Delete inapplicable tables.

If the regulatory change is intended to replace an emergency regulation, please follow the instructions in the text following the three chart templates below. Please include citations to the specific section(s) of the regulation that are changing.

If a new regulation is being promulgated, that is not replacing an existing regulation, please use this chart:

New chapter-section number	New requirements	Other regulations and law that apply	Intent and likely impact of new requirements
135-10	Establish definitions section for recreational advisories	None.	To define words and terms used in the chapter. No economic or family impact is anticipated.
135-20	Establish the application section for recreational advisories.	None.	To establish that this chapter applies to the issuance of beach advisories and beach warnings for public beach water. No economic or family impact is anticipated.
135-30	Establish who can issue and lift beach advisories and how that occurs in practice.	None.	To establish what the threshold is for beach advisories and warnings, who has the authority to issue, and acceptable means of public notification. No economic or family impact is anticipated.
135-40	Require that advisories to protect recreational uses in coastal public beach water be issued and lifted in accordance with the VDH Beach Monitoring and Notification Protocol.	None.	<p>Currently, localities that participate in the VDH Beach Monitoring and Notification Program are provided guidance on the procedures of issuing and lifting beach advisories. The promulgation of this regulation will require those same actions by law.</p> <p>This regulation will provide greater flexibility for the management of advisory thresholds under programmatic protocols. No economic or family impact is anticipated.</p>

DEPARTMENT OF HEALTH
135 Recreational Advisories

CHAPTER 135
RECREATIONAL ADVISORIES

1 **12VAC5-135-10. Definitions.**

2 The following words and terms when used in this chapter shall have the following meaning,
3 unless the context clearly indicates otherwise:

4 “Beach action value” (BAV) means the concentration of an indicator organism equal to or
5 above which beach advisories shall be issued and below which beach advisories shall be lifted.

6 “Beach advisory” or “beach advisories” means a public announcement that the Beach Action
7 Value has been met or exceeded and informing the public of a higher risk of illness when
8 swimming.

9 “Beach warning” or “beach warnings” means a public announcement issued as a result of the
10 Department suspecting a public beach water hazard to be present, such as during extreme
11 weather events or chemical spills, or when the Department has been unable to test public beach
12 water as scheduled.

13 “Commissioner” means the State Health Commissioner or his designee.

14 “Department” means the Virginia Department of Health.

15 “Public beach” means a sandy beach located on a tidal shoreline adjacent to water that is
16 suitable for swimming and that remains open and accessible for public use.

17 “Public beach water” means the water adjacent to a public beach.

18 **12VAC5-135-20. Application.**

19 This chapter applies to the issuance of beach advisories and beach warnings for public beach
20 water.

21 **12VAC5-135-30. Issuance and Lifting of Beach Advisories and Beach Warnings.**

22 A. The BAV is equal to 104 colony forming units (cfu)/100 mL enterococci.

23 B. The Commissioner shall issue beach advisories whenever public beach water samples are
24 equal to or above the BAV. After the issuing of the beach advisory, if the results of subsequent
25 testing of public beach water samples are below the BAV, the Commissioner shall lift the beach
26 advisory.

27 C. The Commissioner shall issue beach warnings whenever it is not possible for Department
28 staff to collect samples of the public beach water on the scheduled day as a result of practical or
29 safety concerns, or if the proximity of other imminent hazards, such as those of a chemical spill,
30 pose a health risk to public beach water users. The Commissioner shall lift beach warnings when
31 the event or imminent health hazard has passed or public beach water sampling has resumed.
32 The appropriate laboratory analysis for the hazard shall be used when available to demonstrate
33 public beach water conditions are safe for public use.

34 D. Acceptable means of public notification of beach advisories and beach warnings include
35 public beach signage, press releases, contacting of local government officials, social media posts,
36 and other forms of communication to convey a beach advisory or beach warning.

37 **12VAC5-135-40. Procedures for Beach Monitoring.**

38 1. The Department shall collect public beach water samples on a weekly basis from mid-May
39 through September or as otherwise determined by the Department based on factors such as the
40 size of the beach-going population and the climate at any particular public beach.

41 2. The Department shall analyze public beach water samples using US Environmental
42 Protection Agency-approved methods.

43 3. If the Department does not collect and test a public beach water sample as scheduled, the
44 Commissioner shall issue a beach warning, or if there is an existing beach advisory, the
45 Commissioner shall continue the beach advisory.

46 4. If multiple public beach water samples are taken at several sites within public beach water,
47 the Department may average and compare them with the BAV. If the average result of the public
48 beach water samples is equal to or above the BAV, then the Commissioner shall issue a beach
49 advisory.

50 5. If a public beach water sample is equal to or above the BAV, the Commissioner-issued
51 beach advisory remains in effect until follow-up samples can be taken which demonstrate that
52 levels are below the BAV.

53 6. In the event of the issuance of a beach advisory, the Department shall collect and analyze
54 follow-up public beach water samples as soon as reasonably possible. Follow-up public beach
55 water samples that are equal to or above the BAV shall result in a continuation of the beach
56 advisory.



COMMONWEALTH of VIRGINIA

Department of Health

M. NORMAN OLIVER, MD, MA
STATE HEALTH COMMISSIONER

PO BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

MEMORANDUM

DATE: June 7, 2018

TO: Virginia State Board of Health

FROM: Allen Knapp, Office of Environmental Health Services

SUBJECT: Amend Regulations to Update Documents Incorporated By Reference, 12VAC5-421

Developed by staff of the Office of Environmental Health Services with input from the Office of Human Resources, the VDH Procedures for Certification and Standardization of Food Inspection Staff (Standard) outlines the process to standardize environmental health specialists, as it relates to regulatory food inspections. Standardization includes classroom instruction, examination, and evaluation of field staff knowledge, understanding, and application of food safety principles. In addition, the Standard promotes uniformity of the application of the Food Regulations (12VAC5-421) throughout the Commonwealth in addition to incorporating, by reference, the Environmental Health Occupational Career Plan.

The 2014 version of the Standard was incorporated into the Food Regulations on July 12, 2016, through regulatory action outlined in the Administrative Process Act (Chapter 40 of Title 2.2 of the Code of Virginia), § 35.1-14.C of the Code of Virginia, and with the approval of the State Board of Health.

The Standard was recently amended to clarify areas regarding the requirements of standardization, the process to re-standardize and maintain standardization, update terminology to reflect changes adopted by the 2013 Food and Drug Administration Food Code, standardization suspension and revocation, and forms utilized in the Standard. This regulatory action amends the Food Regulations to delete the reference to the 2014 standard and replace it with the 2017 Standard, thereby incorporating the 2017 version of the Standard into the Food Regulations by reference.

Upon approval by the Board of Health, the proposed fast track amendments will undergo Executive Branch review and approval. Within 14 days of the Governor's approval, the fast track amendments will be submitted to the Virginia Register of Regulations via Town Hall. Following publication of the fast track amendments, there will be a 30-day public comment period. The regulatory action will become effective 15 days after the close of the public comment period.



townhall.virginia.gov

Fast-Track Regulation Agency Background Document

Agency name	Virginia Department of Health
Virginia Administrative Code (VAC) citation(s)	12VAC5-421
Regulation title(s)	Food Regulations
Action title	Amend Regulations to Update Documents Incorporated by Reference
Date this document prepared	August 20, 2018

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 14 (as amended, July 16, 2018), the Regulations for Filing and Publishing Agency Regulations (1 VAC7-10), and the *Virginia Register Form, Style, and Procedure Manual for Publication of Virginia Regulations*.

Brief Summary

Please provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The Virginia Department of Health Office of Environmental Health Services proposes to amend a section of the Food Regulations (12VAC5-421) to update a document incorporated by reference and the document's title.

Section 12VAC5-421-3815.A of the Food Regulations references the 2014 edition of the "Virginia Department of Health Procedures for Certification and Standardization of Retail Food Protection Staff" (Standard). The purpose of the Standard is to promote uniformity of regulatory inspections of food establishments throughout the Commonwealth and outline the process of training (field and classroom) that is required of environmental health staff who perform regulatory inspections of food establishments.

The Standard was recently updated to reflect changes and a 2017 edition is now available.

Acronyms and Definitions

Please define all acronyms used in the Agency Background Document. Also, please define any technical terms that are used in the document that are not also defined in the “Definition” section of the regulations.

No acronyms or technical terms were identified that were not included in the “Definitions” section of the regulations.

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

Mandate and Impetus

Please identify the mandate for this regulatory change, and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, petition for rulemaking, periodic review, board decision, etc.). For purposes of executive branch review, “mandate” has the same meaning as defined in Executive Order 14 (as amended, July 16, 2018), “a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part.”

As required by Virginia Code § 2.2-4012.1, please also explain why this rulemaking is expected to be noncontroversial and therefore appropriate for the fast-track process.

The proposed amendment updates a document incorporated by reference, the Standard. The Standard applies only to VDH staff and all amendments to the Standard are necessary to provide clarification of expectations of environmental health staff undergoing or maintaining their standardization status. The Standard, in its proposed form, does not have an adverse impact on the regulatory community.

Therefore, VDH believes the proposed change will be noncontroversial allowing use of the fast-track process.

Legal Basis

Please identify (1) the agency or other promulgating entity, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia or Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating entity to regulate this specific subject or program, as well as a reference to the agency or promulgating entity’s overall regulatory authority.

Section 35.1-3 of the Code of Virginia (Code) states, in part, the Commissioner shall be vested with the authority of the Board pursuant to Title 35.1 of the Code when the Board is not in session. Such authority is subject to rules and regulations as may be prescribed by the Board.

Sections 35.1-11 and 14 of the Code authorizes and requires the Board to promulgate and enforce regulations governing restaurants in accordance with the provisions of Title 35.1 of the Code.

The imperative form of the verb “shall” and “require” are used, making the Board’s authority to regulate mandatory rather than discretionary.

Purpose

Please explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it’s intended to solve.

Section 12VAC5-421-3815.A of the Food Regulations references the 2014 edition of the “Virginia Department of Health Procedures for Certification and Standardization of Retail Food Protection Staff.” The purpose of the Standard is to promote uniformity of regulatory food inspections throughout the Commonwealth and outline the process of training (field and classroom) that is required of environmental health staff who perform regulatory inspections of food establishments. The Standard requires amendment in order to ensure the standardization process meets industry standards (Conference for Food Protection), guidance from the Food and Drug Administration (FDA), and conforms with current VDH policies.

Such changes include: (1) Clarification of the prerequisite training required to enroll in the standardization process, (2) update terminology to reflect changes adopted from the 2013 FDA Food Code, (3) revise scoring and “level of agreement” regarding evaluation of standardization candidates, (4) updating and clarifying provisions to maintain standardization, and (5) updating and revision of forms utilized in the Standard.

Substance

Please briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the “Detail of Changes” section below.

The proposed amendment to the Food Regulations include updating section 12VAC 5-421-3815.A which states in part, “...Virginia Department of Health Procedures for Certification and Standardization of Retail Food Protection Staff, 2014”. The proposed change will update “2014” to “2017”, change the document title to “Virginia Department of Health Procedures for Certification and Standardization of Food Inspection Staff”, and upload the new 2017 edition of the Standard as a document incorporated by reference.

Issues

Please identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

The primary advantage to the public, the agency or Commonwealth is in providing transparency as to the training standards of environmental health staff who conduct regulatory inspections of food establishments. This information is contained in the Standard. By updating the Standard, the VDH is providing the public, which includes the regulated community and interested stakeholders, detailed information regarding the criteria the VDH utilizes to determine if environmental health staff conducting

regulatory inspections of food establishments have the knowledge, skills, and ability to adequately perform their duties.

The proposed regulatory action poses no disadvantage to the public or the Commonwealth.

Requirements More Restrictive than Federal

Please identify and describe any requirement of the regulatory change which is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

There are no requirements in this proposal that exceed federal requirements.

Agencies, Localities, and Other Entities Particularly Affected

Please identify any other state agencies, localities, or other entities particularly affected by the regulatory change. "Particularly affected" are those that are likely to bear any identified disproportionate material impact which would not be experienced by other agencies, localities, or entities. "Locality" can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected

No locality will be particularly affected by the proposed regulation.

Localities Particularly Affected

No locality will be particularly affected by the proposed regulation.

Other Entities Particularly Affected

No locality will be particularly affected by the proposed regulation.

Economic Impact

Pursuant to § 2.2-4007.04 of the Code of Virginia, please identify all specific economic impacts (costs and/or benefits), anticipated to result from the regulatory change. When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Please keep in mind that this is change versus the status quo.

Impact on State Agencies

<p><i>For your agency:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including: a) fund source / fund detail;</p>	<p>There is no projected cost to the state to implement the proposed regulatory change.</p>
--	---

b) delineation of one-time versus on-going expenditures; and c) whether any costs or revenue loss can be absorbed within existing resources	
<i>For other state agencies:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including a delineation of one-time versus on-going expenditures.	There is no projected cost to the state to implement the proposed regulatory change.
<i>For all agencies:</i> Benefits the regulatory change is designed to produce.	To improve clarity of the criteria utilized by the VDH as it pertains to standardization of VDH staff who conduct inspections of food establishments and to align the Standard with changes to the most recent edition of the FDA Food Code.

Impact on Localities

Projected costs, savings, fees or revenues resulting from the regulatory change.	There is no projected cost to localities.
Benefits the regulatory change is designed to produce.	To improve clarity of the criteria utilized by the VDH as it pertains to standardization of VDH staff who conduct inspections of food establishments and to align the Standard with changes to the most recent edition of the FDA Food Code.

Impact on Other Entities

Description of the individuals, businesses, or other entities likely to be affected by the regulatory change. If no other entities will be affected, include a specific statement to that effect.	VDH staff who conduct regulatory inspection of food establishments.
Agency's best estimate of the number of such entities that will be affected. Please include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that: a) is independently owned and operated and; b) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.	NA. External entities will not be affected by this regulatory action. No small businesses will be affected by this regulatory action.
All projected costs for affected individuals, businesses, or other entities resulting from the regulatory change. Please be specific and include all costs including, but not limited to: a) projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the regulatory change; c) fees; d) purchases of equipment or services; and e) time required to comply with the requirements.	There are no projected costs for affected individuals, businesses, or other entities.
Benefits the regulatory change is designed to produce.	To improve clarity of the criteria utilized by the VDH as it pertains to standardization of VDH staff who conduct inspections of food establishments

	and to align the Standard with changes to the most recent edition of the FDA Food Code.
--	---

Alternatives

Please describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

No other viable alternatives to the proposed amendment were considered. The proposed change does not impose a burden or cost to small businesses, the regulated community, or to the public at large.

Regulatory Flexibility Analysis

Pursuant to § 2.2-4007.1B of the Code of Virginia, please describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

An analysis of alternative regulatory methods was not performed as the proposed change does not consist of compliance or reporting requirements, schedules or deadlines for compliance, or performance standards for small businesses.

The proposed regulatory action merely updates the edition year of a document incorporated by reference, the Standard. The Standard does not have an impact on the regulated community or its stakeholders, only staff of VDH.

Public Participation

If an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, the agency shall: 1) file notice of the objections with the Registrar of Regulations for publication in the Virginia Register; and 2) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.

Detail of Changes

Please list all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation.

If the regulatory change will be a new chapter, describe the intent of the language and the expected impact. Please describe the difference between existing regulation(s) and/or agency practice(s) and what is being proposed in this regulatory change. Delete inapplicable tables.

If the regulatory change is intended to replace an emergency regulation, please follow the instructions in the text following the three chart templates below. Please include citations to the specific section(s) of the regulation that are changing.

For changes to existing regulation(s), please use the following chart:

Current section number	New section number, if applicable	Current requirement	Change, intent, rationale, and likely impact of new requirements
5-421-3851	N/A	Competency determination of staff who conduct regulatory inspections of food establishments is determined by the criteria outlined in the “Virginia Department of Health Procedures for Certification and Standardization of Retail Food Protection Staff, 2014” edition.	Proposing to update the title to “Virginia Department of Health Procedures for Certification and Standardization of Food Inspection Staff” and incorporate by reference the 2017 edition of the Standards.

DEPARTMENT OF HEALTH
CH 421 DIBR Only Revision

12VAC5-421-3815. Competency of environmental health specialists.

1 A. An authorized representative of the commissioner who inspects a food establishment or
2 conducts plan review for compliance with this chapter shall have the knowledge, skills, and ability
3 to adequately perform the required duties. For the purposes of this section, competency shall be
4 demonstrated when an environmental health specialist meets the training and standardization
5 requirements specified in the ~~Virginia Department of Health Procedures for Certification and~~
6 ~~Standardization of Retail Food Protection Staff, 2014~~, Virginia Department of Health Procedures
7 for Certification and Standardization of Food Inspection Staff, 2017 edition (VDH, Division of Food
8 and Environmental Services).

9 B. The regulatory authority shall ensure that authorized representatives who inspect a food
10 establishment or conduct plan review for compliance with this chapter have access to training and
11 continuing education as needed to properly identify violations and apply this chapter.

DOCUMENTS INCORPORATED BY REFERENCE (12VAC5-421)

Approved Drug Products with Therapeutic Equivalence Evaluations, 34th Edition, 2014, U.S. Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research, Office of Pharmaceutical Science, Office of Generic Drugs at <http://www.fda.gov/cder/ob/default.htm>

Grade "A" Pasteurized Milk Ordinance, 2013 Revision, U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, Milk Safety Branch (HFS-626), 5100 Paint Branch Parkway, College Park, MD 20740-3835

Interstate Certified Shellfish Shippers List (updated monthly), published by the U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, Office of Seafood (HFS-417), 5100 Paint Branch Parkway, College Park, MD 20740-3835

National Shellfish Sanitation Program (NSSP) Guide for the Control of Molluscan Shellfish, 2013 Revision, U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration, Office of Seafood (HFS-417), 5100 Paint Branch Parkway, College Park, MD 20740-3835

NSF/ANSI 18-2012 Manual Food and Beverage Dispensing Equipment, 2012, NSF International, 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113-0140, www.nsf.org

Standards for Accreditation of Food Protection Manager Certification Programs, April 2012, Conference for Food Protection, 30 Elliott Court, Martinsville, IN 46151-1331

United States Standards, Grades, and Weight Classes for Shell Eggs, AMS-56, effective July 20, 2000, U.S. Department of Agriculture, Agricultural Marketing Service, Poultry Programs, STOP 0259, Room 3944-South, 1400 Independence Avenue, SW, Washington, DC 20250-0259

- 12 [VDH Procedures for Certification and Standardization of Retail Food Protection Staff](#)
- 13 [Workbook, 2014, Virginia Department of Health, Division of Food and Environmental Services,](#)
- 14 [109 Governor Street, 5th Floor, Richmond, VA 23219](#)
- 15 [VDH Procedures for Certification and Standardization of Food Inspection Staff, 2017, Virginia](#)
- 16 [Department of Health, Division of Food and Environmental Services, 109 Governor Street, 5th](#)
- 17 [Floor, Richmond, VA 23219](#)