

Basic Reporting Using State Bridge (VPHIB)

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Objectives

- Provide a brief overview of the descriptive statistics used to summarize large amounts of data
- Describe the strengths and limitations of data from the Virginia Pre Hospital Information Bridge (VPHIB)
- Demonstrate how to use the Report Writer 2.0 tool in VPHIB to
 - Use existing reports
 - Create *ad hoc* analytical reports using the data cube

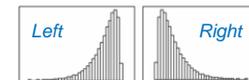


Numbers are Numbers - NOT!

- Groups of numbers (*distributions* or *probability distributions*) don't always look the same
- "Bell shaped curve" or *Normal distribution*
 - Very common (mean +/- standard deviation)
 - Not the only way numbers like to congregate!
- MANY other distributions exist, but you don't need to know about them *BUT* . . .
 - You should be aware of two other common distributions, *left skewed* and *right skewed*



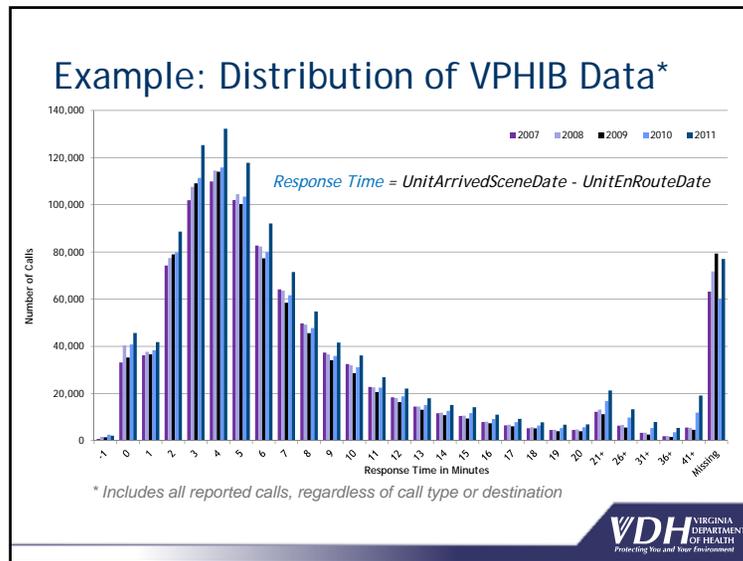
Skewed Distributions



- *Skewness* is a measure of asymmetry
 - Named for the location of the *tail* of the distribution
- Right skewed data are very common in health care
 - Characterized by *asymmetry*
 - Measure of *central tendency* (middle) = *median*
 - Measure of *spread* (variability) = *inter-quartile range (IQR)* represents middle 50% of the data
 - 75th percentile value - 25th percentile value
- Let's apply our new found knowledge to some actual Virginia EMS data . . .



Basic Reporting Using State Bridge (VPHIB)



Example: Statistics for VPHIB Data*

Response Time in Minutes (UnitArrivedSceneDate - UnitEnRouteDate)					
	2007	2008	2009	2010	2011
N Calls	860,368	885,636	842,018	910,883	1,054,323
N Missing Values	63,197	71,742	79,339	60,132	76,995
Minimum	-1,439.0	-1,439.0	-525,585.0	-4,733,277.1	-527,032.0
01st Percentile	0.0	0.0	0.0	0.0	0.0
05th Percentile	1.0	1.0	1.0	0.9	1.0
10th Percentile	2.0	2.0	2.0	2.0	2.0
25th Percentile	3.0	3.0	3.0	3.0	3.0
Median	5.0	5.0	5.0	5.0	5.0
75th Percentile	8.0	8.0	8.0	8.7	9.0
90th Percentile	13.0	13.0	13.0	15.0	16.0
95th Percentile	18.0	18.0	17.0	21.0	24.0
99th Percentile	34.0	33.0	31.0	46.3	55.0
Maximum	1,439.0	1,439.0	1,471.0	3,682,086.2	4,207,687.5
Average	7.5	5.8	4.9	16.3	18.8
Standard Deviation	63.7	77.5	577.3	6,696.8	5,327.8

* Includes all reported calls, regardless of call type or destination

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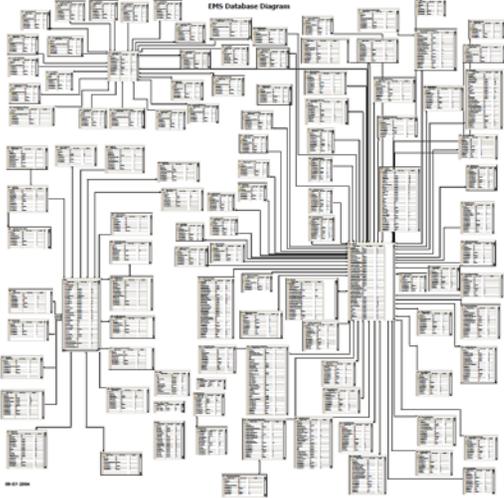
Virginia Pre Hospital Information Bridge

- EMS data submission is mandated by the Code of Virginia § 32.1-116.1 and EMS regulations
- Current minimum dataset (VPHIB) was officially adopted on February 6, 2010 by the State Board of Health
- All EMS responses are required to be submitted to OEMS *WITHIN 30 DAYS* in the format prescribed by OEMS
- Agencies may submit above and beyond this minimum dataset if desired to collect further information on an agency, locality, or regional level

VPHIB Characteristics

- Strengths
 - Potentially rich source of information
 - Includes all aspects of patient care by all levels of EMS personnel
- Limitations
 - Older data (pre mid-2010) not as complete
 - Not all agencies submit data in a timely manner
 - Difficult to follow a patient across time
 - Known flaws in several data fields
 - Probable unknown flaws in other data fields

Basic Reporting Using State Bridge (VPHIB)



VPHIB Database Diagram

Note: Many of the tables are truncated!



<https://vphib.vdh.virginia.gov/>



Introduction to VPHIB Resources - 1



Alerts and Notices

Next VPHIB Version 2 Open Forum Meeting 10/9/12 @ 2:00 EST.

For Help, Information, News, and other Resources go to the VPHIB Support Suite

Go to <http://www.vdh.virginia.gov>

E-mail support@CDHSupport.kanaka.com

Call (804) 883-8149

Please use the VPHIB contact info above. Contacting staff directly can cause delays.

Agenda - October Meeting

- Demonstration on how add agency fields and map them correctly back to the State dataset. (using '2' as an example)
- Question and answer period to ask OEMS VAc3 questions.
- Agency to agency questions (may not be needed this month).

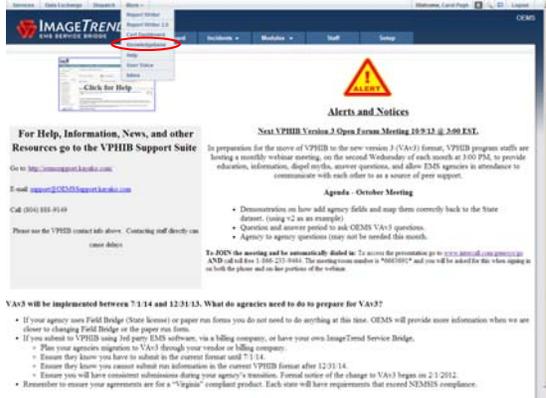
To RSVP the meeting and be automatically added to the mailing list: Go to www.vdh.virginia.gov and click on the "VPHIB" link in the top navigation bar. The meeting room number is "9065051" and you will be added to the list when you sign in both the phone and on the portion of the website.

VAc3 will be implemented between 7/1/14 and 12/31/13. What do agencies need to do to prepare for VAc3?

- If your agency uses Field Bridge (State license) or paper run forms you do not need to do anything at this time. OEMS will provide more information when we are closer to changing Field Bridge or the paper run forms.
- If you submit to VPHIB using 3rd party EMS software, via a billing company, or have your own ImageTrend Service Bridge.
 - Plan your agencies migration to VAc3 through your vendor or billing company.
 - Ensure they know you have to submit in the current format until 7/1/14.
 - Ensure they know you cannot submit run information in the current VPHIB format after 12/31/13.
 - Ensure you will have consistent submissions during your agency's transition. Formal notice of the change to VAc3 begins on 2/1/2012.
- Remember to ensure your agreements are for a "Virginia" compliant product. Each state will have requirements that exceed NEMIS compliance.



Introduction to VPHIB Resources - 2



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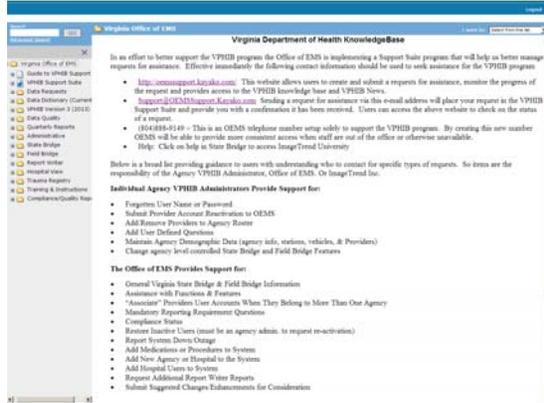
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Basic Reporting Using State Bridge (VPHIB)

Introduction to VPHIB Resources - 3a



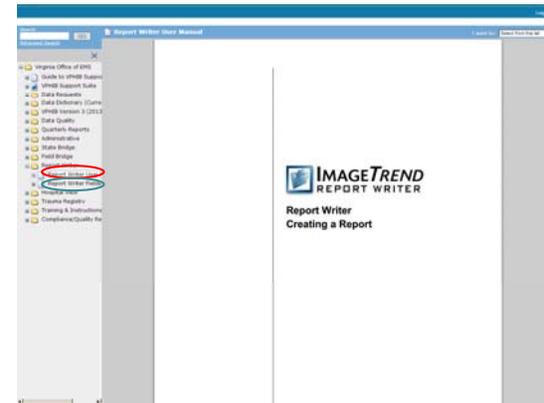
Introduction to VPHIB Resources - 3b



Introduction to VPHIB Resources - 4



Introduction to VPHIB Resources - 5



Basic Reporting Using State Bridge (VPHIB)

Introduction to VPHIB Resources - 6

This Page Contains:

- The current full VPHIB Data Dictionary (required data elements, fields, and quality standards.)
- A short list of the current required list of data elements.
- The short list plus submission schedule.
- List of medications accepted by VPHIB (additional meds can be added upon request.)
- List of hospital codes accepted by VPHIB (all hospitals must be reported using their OEMS assigned codes.)
- List of procedures active accepted by VPHIB (additional procedures can be added upon request.)
- List of inactive procedures that can be utilized when mapping third party software to VPHIB.
- The most current export of VPHIB's validation rules (these are likely to change without notice, typically on the last day of the month).
- The most current export of our validation rules with additional detail. The detailed report has not functioned since January 2012. This function is expected to be fixed with the release of v5.5 in August or September of 2012.



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Virginia
OFFICE OF EMERGENCY MEDICAL SERVICES
Virginia Department of Health

Virginia Pre-Hospital Information Bridge
(VPHIB)
Data Element Dictionary

Rev. 9/23/2011



Introduction to VPHIB Resources - 8

Code	Description	Page
D01_01	Dispatch Instructions	5
D01_02	EMS Agency Number	6
D01_03	EMS Agency Name	6
D01_04	EMS Agency State	6
D01_05	EMS Agency Certification	10
D01_06	Organizational Type	12
D01_07	Organizational Street	13
D01_08	National Provider Identifier	14
D01_09	Agency Contact Email Address	15
D01_10	Phonetic	16
D01_11	Station Name	20
D01_12	Station Number	21
D01_13	Station ZIP	22
D01_14	Station Address	23
D01_15	Station Certification	24
D01_16	Station State	26
D01_17	Station City	26
D01_18	Unit/Vehicle Number	27
D01_19	Vehicle Type	28
D01_20	Vehicle Make/Year	28
D01_21	Dispatch/Response ID Number	29
D01_22	Personnel's Level of Certification/Experience for Agency	31
D01_23	EMS Personnel's Last Name	32
D01_24	EMS Personnel's First Name	34
D01_25	State EMS Certification License Level	34
D01_26	Software Name	36
D01_27	Software Version	36
D01_28	EMS Agency Number	36
D01_29	Incident Number	36
D01_30	Type of Service Requested	40
D01_31	Priority Rank of the Unit	41
D01_32	Type of Dispatch Delay	42
D01_33	Type of Response Delay	42
D01_34	Type of Service Delay	42
D01_35	Type of Transport Delay	42
D01_36	Type of Transport Delay	42
D01_37	Type of Transport Delay	42
D01_38	EMS Unit Call Sign (Alpha Number)	47
D01_39	Response Method to Scene	48
D01_40	Complaint Reported by Dispatch	48
D01_41	EMS Personnel	49
D01_42	Dispatch Member ID	50
D01_43	EMT Call Date/Time	50
D01_44	Dispatch Member Date/Time	50
D01_45	Unit In-Scene Date/Time	50



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TYPE OF SERVICE REQUESTED

E02_04

Required to be reported in VA – Yes
National Element – Yes

Definition

The type of service or category of service requested of the EMS service responding for this specific EMS incident.

Field Values

30 911 Response (Scene) (Default)	35 Rendezvous/Intercept
40 Interfacility Transfer (scheduled)	43 Medical Transport
50 Mutual Aid	55 Standby
410000 Interfacility Transfer (unscheduled)	410001 Flagdown/Walk-in Emergent
410002 Flagdown/Walk-in Non-emergent	



Basic Reporting Using State Bridge (VPHIB)

Introduction to VPHIB Resources - 10

INCIDENT/PATIENT DISPOSITION

E20_10

Required to be reported in VA – Yes
National Element - Yes

Definition
Type of disposition treatment and/or transport of the patient.

Field Values	
4815 Cancelled	4820 Dead at Scene
4825 No Patient Found	4830 No Treatment Required
4835 Patient Refused Care	4840 Treated and Released
4845 Treated, Transferred Care	4850 Treated, Transported by EMS
4855 Treated, Referred to Law Enforcement	4860 Treated, Transported by Private Vehicle
804003 Standby Only – No Patient Contacts	



Using an Existing Report - 1

Alerts and Notices

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Next VPHIB Version 3 Open Forum Meeting 10.22.13 @ 2:00 EST.

Agenda - October Meeting

- Demonstration on how add agency fields and map them correctly back to the State Element. (using v2 as an example)
- Questions and answer period to ask OEMS VAV3 questions.
- Agency to agency questions (may not be needed this month).

VAV3 will be implemented between 7:13:14 and 12:31:13. What do agencies need to do to prepare for VAV3?

- If your agency uses Field Bridge (State license) or paper run forms you do not need to do anything at this time. OEMS will provide more information when we are closer to changing Field Bridge to the paper run form.
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- Remember to ensure your agreements are for a "Virginia" compliant product. Each state will have requirements that exceed NEMIS compliance.



Using an Existing Report - 2

Timeout Warning!

You have been inactive for over 30 minute(s). Please click "Keep Session Alive" below to continue with your session. If you do not confirm, you will be automatically logged out of the system in 35 minute(s).



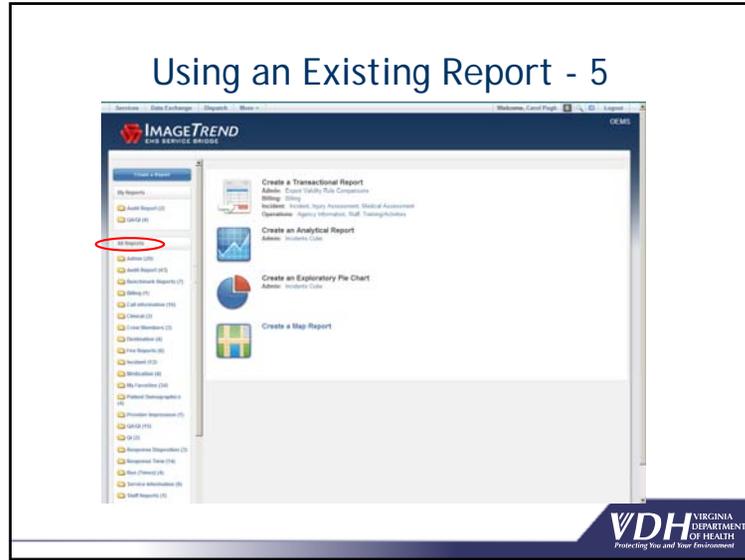
Using an Existing Report - 4

<https://vphib.vdh.virginia.gov/reportwriter/>

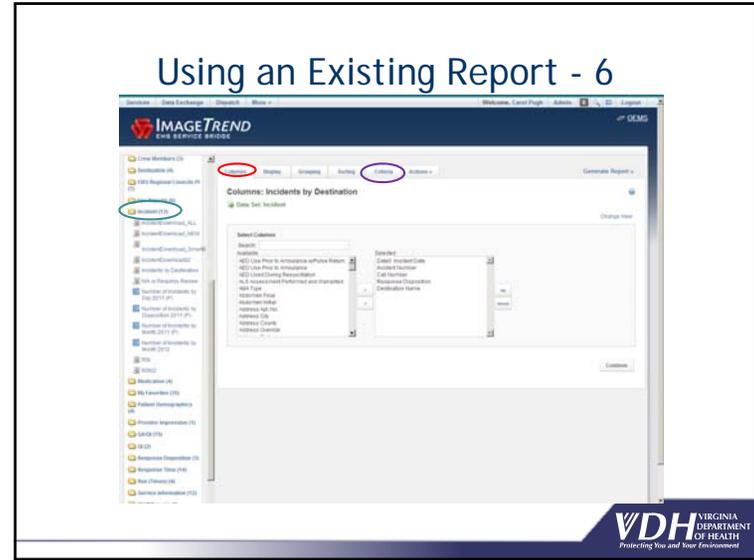


Basic Reporting Using State Bridge (VPHIB)

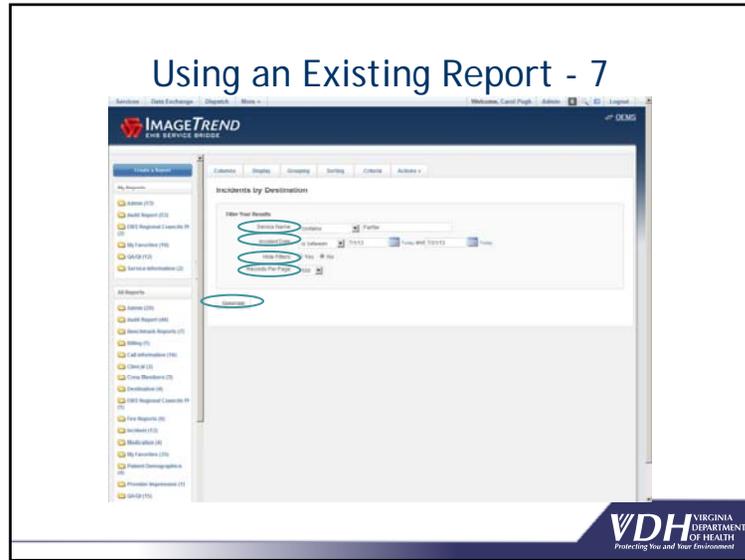
Using an Existing Report - 5



Using an Existing Report - 6



Using an Existing Report - 7

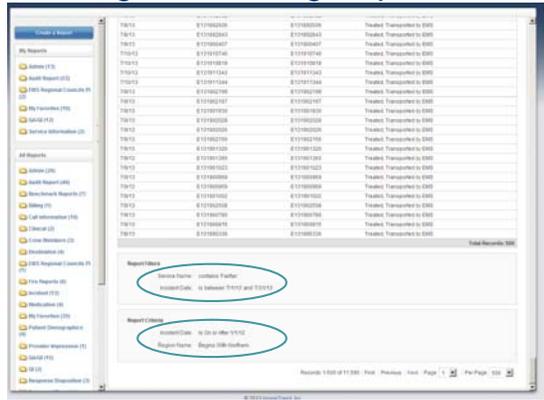


Using an Existing Report - 8

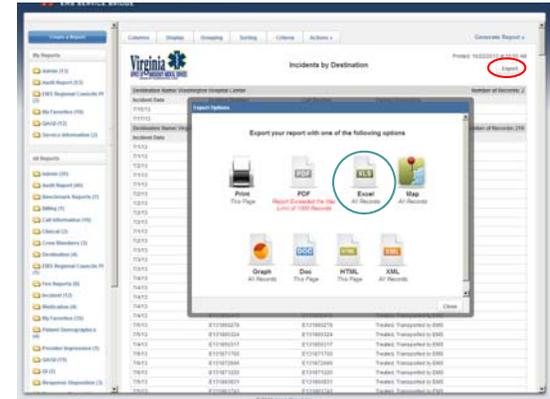


Basic Reporting Using State Bridge (VPHIB)

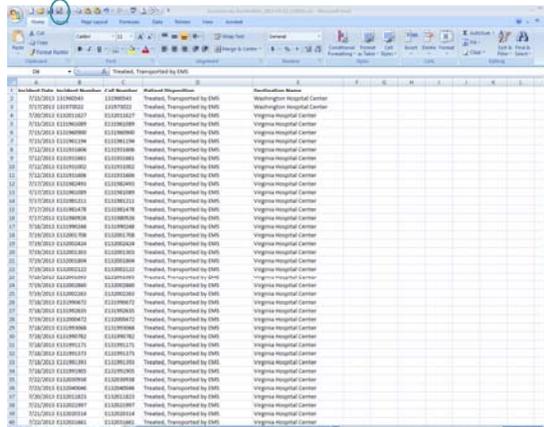
Using an Existing Report - 9



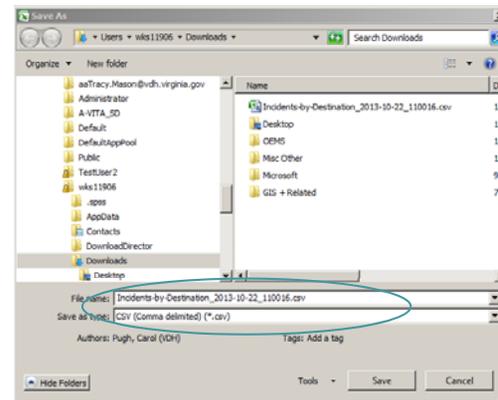
Using an Existing Report - 10



Using an Existing Report - 11

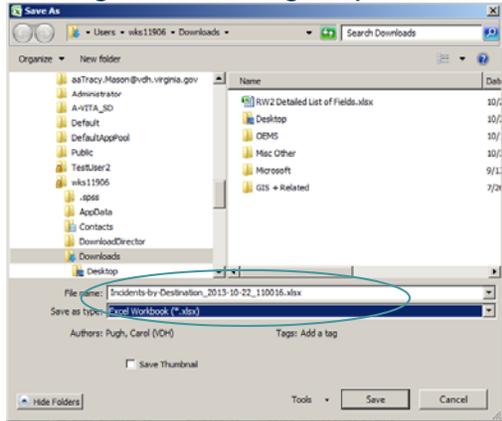


Using an Existing Report - 12

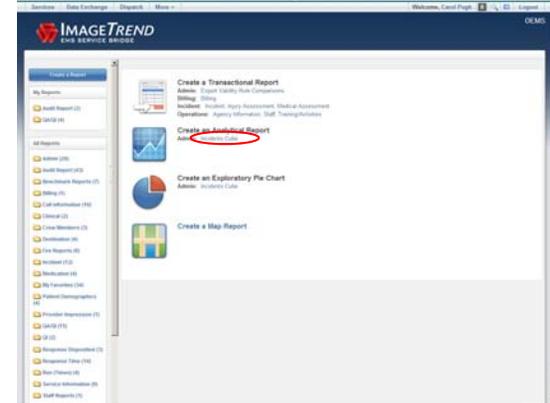


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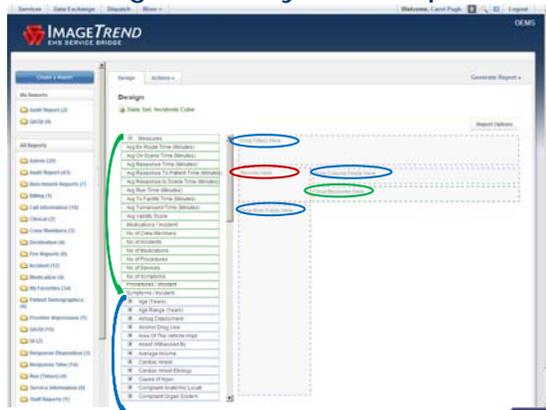
Using an Existing Report - 13



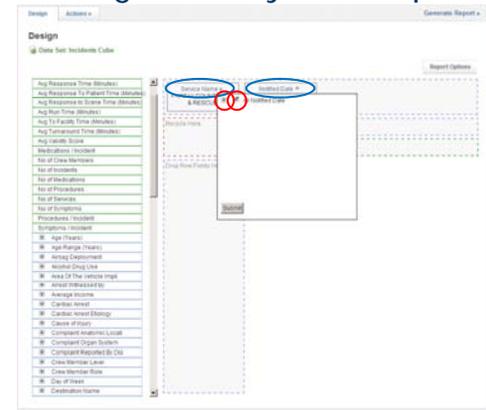
Creating an Analytical Report - 1



Creating an Analytical Report - 2



Creating an Analytical Report - 3



Basic Reporting Using State Bridge (VPHIB)

Creating an Analytical Report - 4

The screenshot shows the 'Design' pane of the reporting tool. On the left, there is a list of data fields including 'Avg Response Time (Minutes)', 'Avg Response to Patient Time (Minutes)', 'Avg Response to Scene Time (Minutes)', 'Avg Run Time (Minutes)', 'Avg To Facility Time (Minutes)', 'Avg Turnaround Time (Minutes)', 'Avg Vehicle Score', 'Milestones - Incident', 'No. of Crew Members', 'No. of Incidents', 'No. of Medications', 'No. of Procedures', 'No. of Services', 'No. of Symptoms', 'Procedures - Incident', 'Symptoms - Incident', 'Age (Years)', 'Age Range (Years)', 'Workday Employment', 'Workday Long Care', 'Area of The Vehicle Imp', 'Area Impressed By', 'Average Income', 'Cardiac Arrest', 'Cardiac Arrest Etiology', 'Cause of Injury', 'Complaint Anatomical Location', 'Complaint Organ System', 'Complaint Reported By Date', 'Crew Member Level', 'Crew Member Role', 'Day of Week', and 'Distribution Name'. On the right, the 'Selected Fields' list contains 'All Health Care' and 'All'. Red arrows point to these two items.

Creating an Analytical Report - 5

The screenshot shows the 'Design' pane of the reporting tool. On the left, there is a list of data fields. On the right, the 'Selected Fields' list contains 'All Health Care' and 'All'. Red circles highlight these two items. The 'Report Options' pane is also visible on the right side of the interface.

Creating an Analytical Report - 6

The screenshot shows the 'Design' pane of the reporting tool. On the left, there is a list of data fields. On the right, the 'Selected Fields' list contains 'All Health Care' and 'All'. Red circles highlight these two items. The 'Report Options' pane is also visible on the right side of the interface.

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Basic Reporting Using State Bridge (VPHIB)

Creating an Analytical Report - 12

The screenshot shows the 'Design' tab in the State Bridge (VPHIB) interface. The 'Design' pane on the left lists various data fields, and the 'Report Options' pane on the right shows a table of patient disposition data. The table includes columns for 'Patient Disposition', 'Primary Service Type', and 'No of Incidents'. The data is as follows:

Patient Disposition	Primary Service Type	No of Incidents
All Patient Disposition	All Primary Service Type	11,310
Cancelled		8,211
Case of State		54
No Patient Found		169
Patient Refused Care		599
Identity Only - No Patient Contact		139
Transfer Transferred Care		0
Transfer Transferred to EMS		4,370

At the bottom of the slide is the VDH Virginia Department of Health logo with the tagline 'Protecting You and Your Environment'.

Creating an Analytical Report - 13

The screenshot shows the 'Properties' tab in the State Bridge (VPHIB) interface. The 'Report Properties' section includes fields for Name, Description, and various filters. The 'Name' field is set to 'Fairfax July 2013 Incidents'. The 'Description' field is set to 'Fairfax July 2013 Incidents by Disposition and Service Type'. The 'Filters' section includes 'All Patients' and 'Yes: No'. The 'Available' section lists various filters, and the 'Selected' section lists 'Plugh, Card'. At the bottom of the slide is the VDH Virginia Department of Health logo with the tagline 'Protecting You and Your Environment'.

Creating an Analytical Report - 14

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Creating an Analytical Report - 15

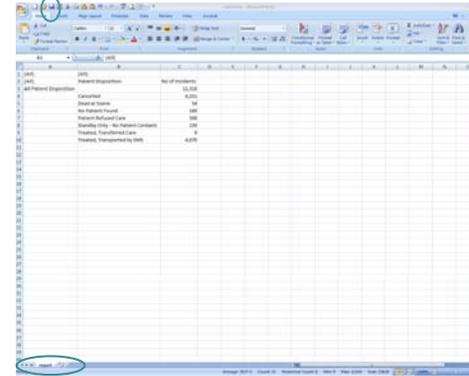
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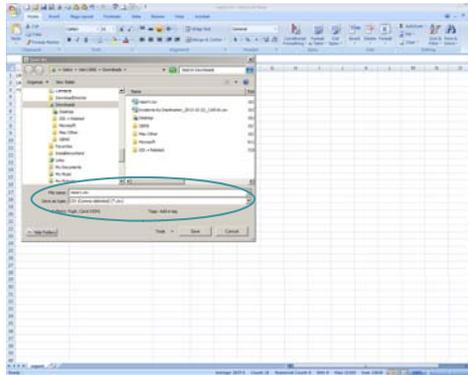
Creating an Analytical Report - 16



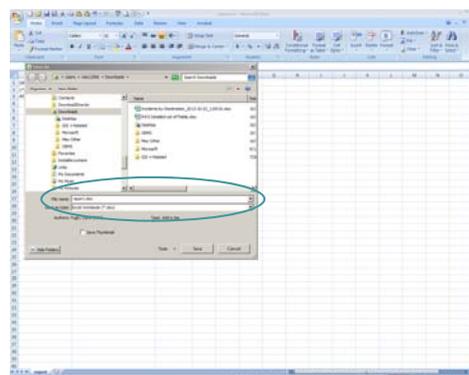
Creating an Analytical Report - 17



Creating an Analytical Report - 18



Creating an Analytical Report - 19



Basic Reporting Using State Bridge (VPHIB)

Final Thoughts - 1

- Some data items come from *“one to one”* matches with the incident data table
 - Patient demographics
 - Incident characteristics (type of service, patient disposition)
- Other data items come from *“one to many”* matches which can result in unintentional duplicate records
 - Vital signs
 - Procedures (and complications)
 - Medications (and complications)



Final Thoughts - 2

- The interface can be glacial in its speed
 - Best to think of this as a data extraction tool rather than a report writer
 - Use at *“off”* times (evenings, weekends) makes things move more quickly
 - Schedule reports to deliver the data to your Email Inbox



Questions?



Carol.Pugh@VDH.Virginia.gov

