Rural EMS Systems:
An Evaluation

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Background

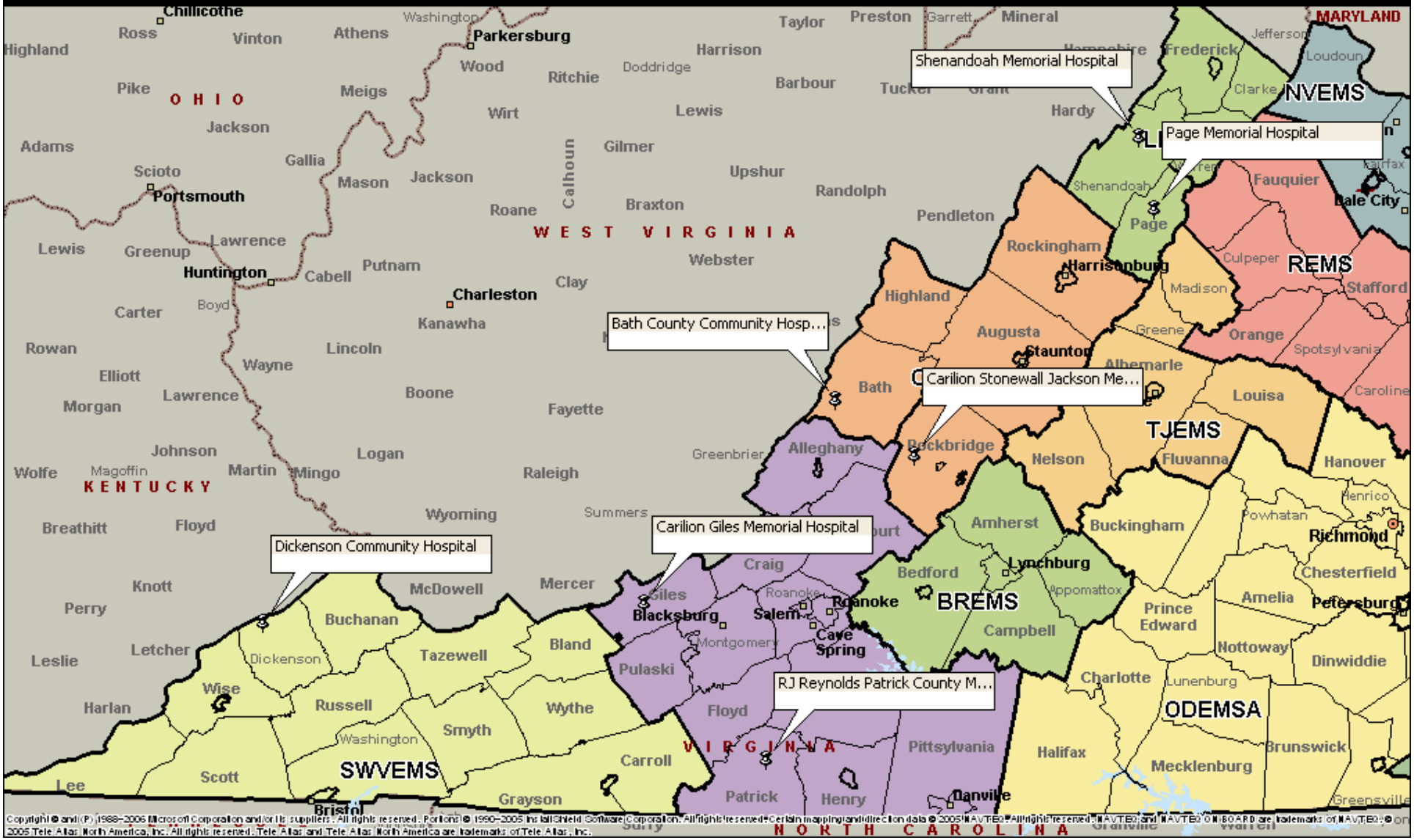
Critical Access Hospitals (CAH)

Facilities designated by Health Resources and Services Administration HRSA as part of the Medicare Rural Hospital Flexibility Program (FLEX).

CAH Designation Requirements

- Physical location in a state that has an established Medicare Rural Hospital Flexibility Program (Flex Program)
- Be located in a rural area
- Provide 24 hour emergency care services, using on site or on call staff
- Provide no more than 25 inpatient beds
- Have an average length of stay of 96 hours or less; and
- Be either 35 miles from another hospital or another CAH, or 15 miles in areas with mountainous terrain or only secondary roads.

CAH Hospitals in Virginia



CAH Facilities

- Bath Community Hospital – Hot Springs
- Dickenson Community Hospital – Clintwood
- Giles Memorial Hospital – Pearisburg
- Page Memorial Hospital – Luray
- RJ Reynolds Patrick County Memorial Hospital – Stuart
- Shenandoah Memorial Hospital – Woodstock
- Stonewall Jackson Hospital - Lexington

CAH Assessments

Virginia Department of Health, Office of Health Policy and Planning (later named Office of Minority Health and Public Health Policy) tasked with evaluating EMS systems in the counties surrounding the Critical Access Hospitals, as part of FLEX Program evaluation.

Critical Access Hospital EMS System Evaluations

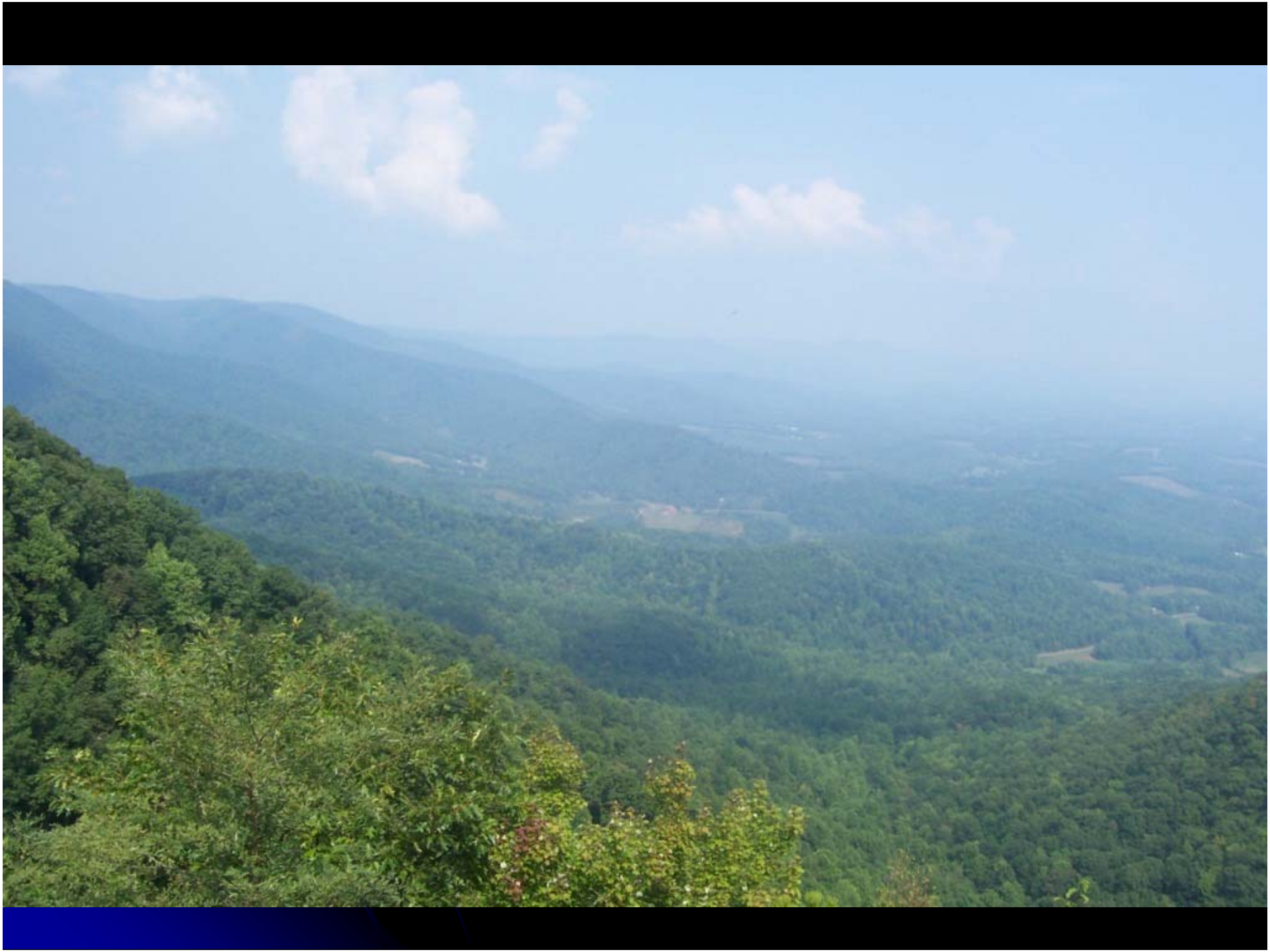
- Previous study completed in Bath County – 2004 – private consultant
- Giles, Patrick, Rockbridge County evaluations – 2007/2008 - OEMS
- Dickenson, Page, Shenandoah County evaluations – 2008/2009 - OEMS
- Revisit/Evaluation of Bath County by OEMS in 2009 - OEMS

Scope of Evaluation

1. Examination of Network Agreements for CAH Certification
2. Study Survey
   - 2a. Questions for EMS Personnel for assessing EMS capabilities in agencies in areas served by the CAH.
   - 2b. Develop questions for CAH personnel for the purpose of assessing the overall function of the local EMS system
3. Study Components
   - 3a. Demographics of the CAH area
   - 3b. Staffing of the local EMS System
   - 3c. Placement of units on basis of call volume and population density
   - 3d. Training Initiatives
   - 3e. Communications
   - 3f. Resource Management
   - 3g. Fiscal Support
   - 3h. Medical Direction
   - 3i. Quality Assurance
   - 3j. Mass Casualty Preparedness
   - 3k. System Partnerships
   - 3l. Hospital Capabilities
4. Recommendations

Site Visits

Site visits were made to CAH facilities and EMS agencies during the evaluations, to get a feel for the environment, and the "on the street" perspective. It was important to see what agencies and the CAH faces first hand.




RESCUE SQUAD


Mt. Jackson
FIRE
DEPARTMENT


ARARAT
VOL.
RESCUE
ARARAT
VOL.
RESCUE
911


STRASBURG
25-3
25-3

Findings and Recommendations

Being that the six evaluations that OEMS performed followed the same scope, and were carried out looking at the same things, most of the findings and recommendations were relatively similar, and applicable in each situation.

Staffing/Placement of EMS Units

- There is 1 EMT for every 204 people across Virginia.
- In “CAH Counties” that number ranges from 1 EMT/168 people to 1 EMT/322 people.
- Very few agencies have implemented strategic placement of units based on volume to time of day. Some do move vehicles based on long transports by neighboring agencies.

Staffing/Placement of EMS Units

Most CAH Counties have some measure of EMS coverage for the majority of a 24 hour period. Those counties with paid staffers fare better in providing dedicated coverage 100% of the time. Most counties do have strong volunteer bases, but all are in need of active recruitment & initiatives to maintain and augment current rosters.

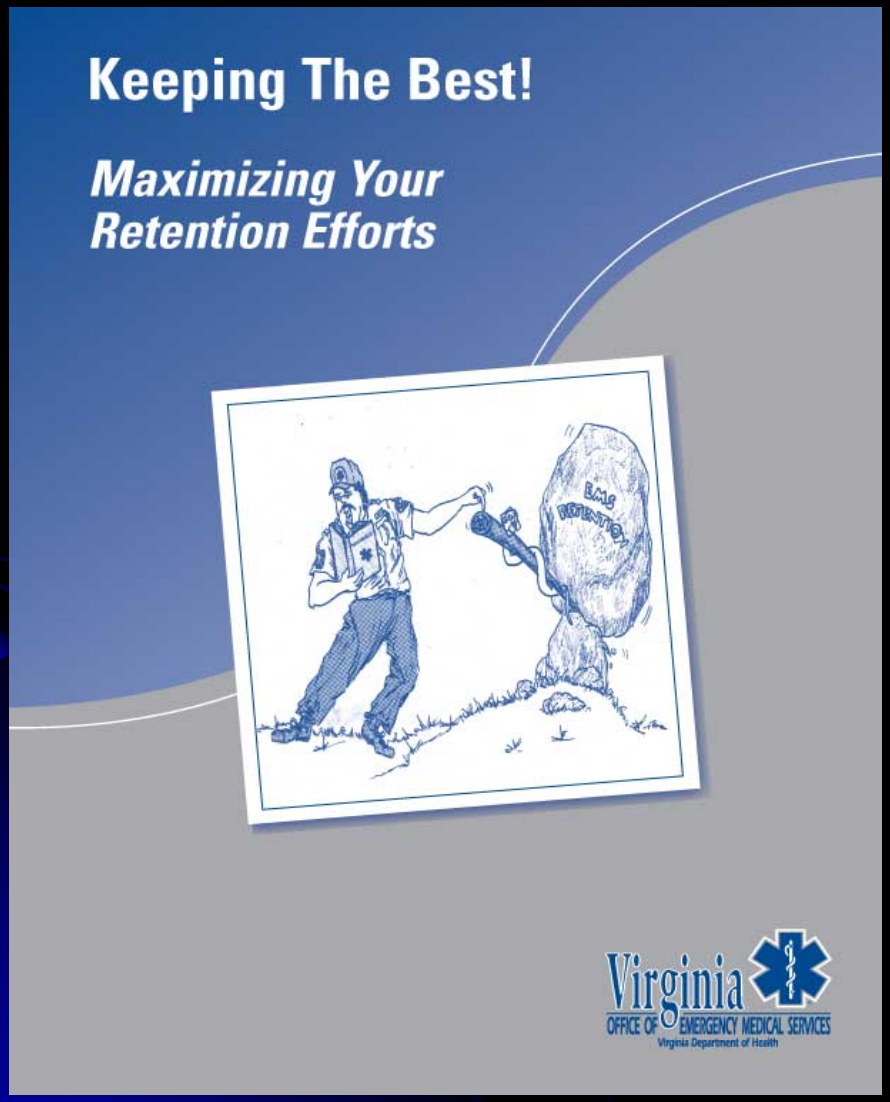
Staffing/Placement of EMS Units

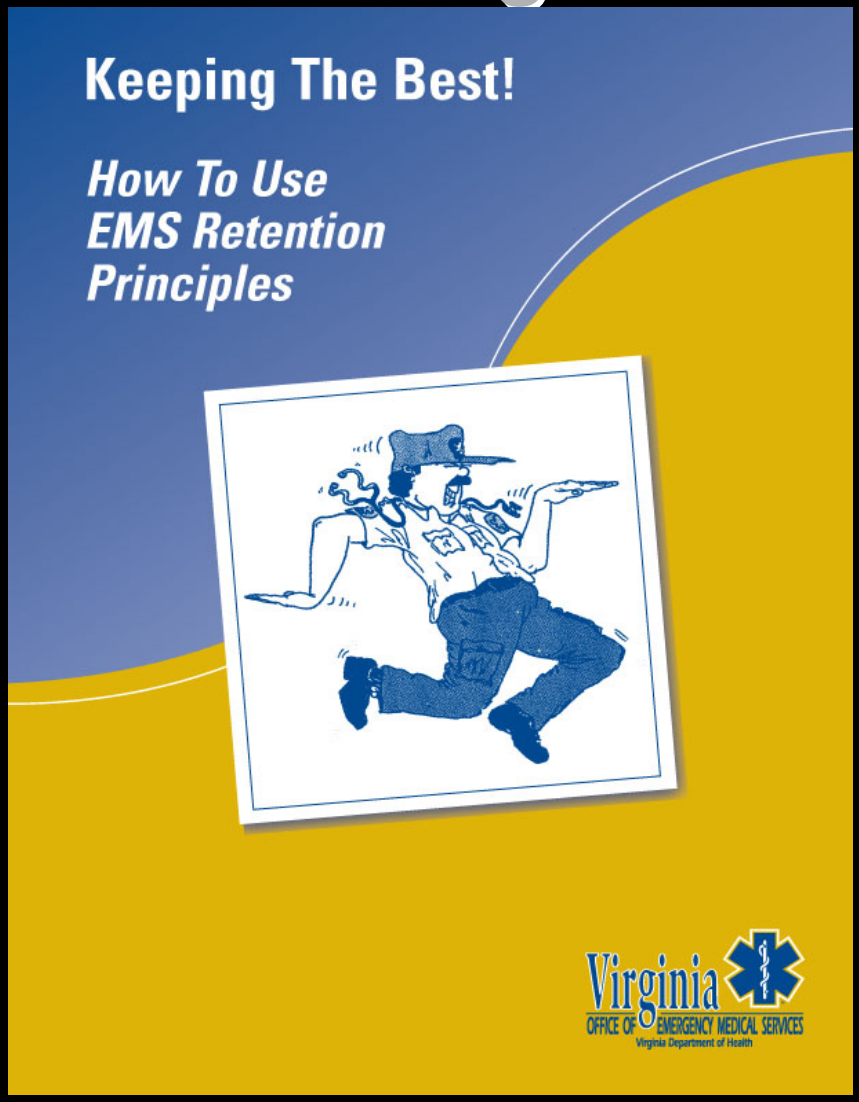
Recruitment and retention (R & R) initiatives are varied, from letter drives to area residents, informational sessions at the local high school, open houses held at the station, and community awareness initiatives. There are areas in many CAH counties where no R & R initiatives are being done at all.

Recommendations

OEMS recommends that volunteer agencies in CAH Counties utilize the “Keeping the Best” series of recruitment and retention workbooks offered to all EMS agencies by OEMS, in order to maintain, and increase their agency rosters.

Keeping The Best!
Recruitment & Retention Programs





Recommendations

Maintaining an emphasis on the recruitment of high-school students may continue to be valuable to the agencies in CAH Counties. Additionally, agencies should strive to provide training opportunities to their providers at free or discounted prices, if they are not already doing so. Public outreach and open houses can also be effective in improvements to staffing.

EMS Training Initiatives

EMS Training opportunities vary from county to county. Some do EMS training in county, and some providers have to drive several miles to obtain EMS training. There has been little involvement by the CAH facilities in the training/continuing education of EMS providers, even when opportunities exist for CAH staffers to take similar classes (CPR, ACLS, PALS, etc.)

EMS Training Initiatives

Most agencies are utilizing EMSAT to receive additional CE.

Recommendations

CAH facilities should commit themselves to become more actively involved in the training and continuing education of the EMS providers within the hospital's catchment area. Each CAH should work collaboratively with the EMS agencies in the county to provide courses that they may already be providing to hospital staff (CPR, ACLS, etc.) that are also applicable to EMS.

Communications

Most CAH Counties are geographically located in or near one or more mountain ranges, making radio and cellular phone communications a challenge. Many providers are reliant on off-line medical direction (treatment protocols) to effectively treat patients until they are able to communicate with hospitals.

Communications

EMS agencies seem to do a pretty fair job of delivering information to hospital staff on arrival at the facility, in the form of PPCR copies.

Few agencies in CAH counties are able to transmit EKG information to hospitals, and few CAH facilities are able to receive EKG transmissions.

Recommendations

The governmental administration in CAH counties should continue to work collaboratively with internal and external entities and resources to upgrade communications abilities in those counties, utilizing the regional hospital preparedness system to apply for state and federal grant funds for communications augmentation.

Resource Management

There are 135 permitted vehicles in the seven CAH counties in Virginia. 110 of those vehicles are permitted at the ALS level, and 100 of those vehicles are transport vehicles. The age of those vehicles range from under 1 year to 36 years of age.

No significant deficiencies were noted upon review of inspection records submitted by OEMS field representatives.

Fiscal Support
Return To Locality Funds

The Code of Virginia states that the Department of Health shall return twenty-six percent (26%) of the registration fees collected to the locality wherein such vehicle is registered to provide funding for EMS Training of volunteer or salaried emergency medical service personnel of licensed, nonprofit emergency medical service agencies; or for the purchase of necessary equipment and supplies for licensed, nonprofit emergency medical service agencies.

In the timeframe of 2006-2007, CAH counties received over $250,000 in Return to Locality Funds.

Fiscal Support
Rescue Squad Assistance Fund

The Rescue Squad Assistance Fund (RSAF) Grant Program is a multi-million dollar grant program for Virginia non-profit EMS agencies and organizations. Items eligible for funding include EMS equipment and vehicles, computers, EMS management programs, courses/classes and projects benefiting the recruitment and retention of EMS members.

In the timeframe of 2006-2007, CAH counties received over $2.5 million dollars in RSAF monies.

Fiscal Support
Fee for Service Programs

Some (not all) agencies in CAH counties have some form of fee for service arrangement in place, either individually, or in partnership with other agencies, or on a county wide basis. Rates of collection vary as well.

Fiscal Support

It was also apparent that many of the EMS agency quarters that were visited during the site visits are in need of renovation, ranging from minor to major, or even consideration of relocation, and /or are outgrowing facilities that they are currently in, and would benefit from some type of funding stream for renovation, expansion or relocation projects.

Recommendations

Not all agencies in CAH counties are consistently applying for RSAF funds, and should do so during every grant cycle.

Each agency in CAH counties should, at minimum, consider the implementation of a fee for service/revenue recovery program. OEMS “Funding Your Future” program is a valuable resource.

Agencies in CAH counties may qualify for federal funds earmarked for capitol improvement projects. These funds may be helpful in making renovations to existing EMS agency space, or to construct new buildings.

Medical Direction

Involvement of Operational Medical Directors (OMD) in agencies in CAH counties is essential, both from a medical direction standpoint, but also in terms of Performance Improvement (PI), and protocol development. OMD involvement among these agencies varies greatly.

Recommendations

OMD's should take a very active role in the operations of the agencies operating under their license, not just to "put out fires", but to take a proactive approach to patient care delivery, including active and established PI programs at the agency level.

OMD's should also be interested in protocol development on a local, and/or regional level.

Quality Assurance

EMS agencies have a pretty good record in terms of PPCR submission compliance with OEMS. We have found agencies who have sent in missing or incomplete data, and some errors in entry.

Evidence of regular reviews of PPCRs is also varied and inconsistent.

Quality Assurance

In 2006 and 2007, roughly 17,000 and 19,000 patients were transported by agencies in CAH Counties.

64% of these patients were transported to CAH facilities, and 24% received ALS treatment.

All agencies within CAH counties maintain and honor mutual aid agreements, and review and update them as needed.

Quality Assurance

All CAH facilities have a large number of transports from their facility to other facilities.

Patients are most commonly transferred to facilities that provide services that the CAH may not provide (Cardiac, Ortho, Neuro, OB/Peds)

Many CAH hospitals have transport services in house, or contract with a commercial service to do the transports.

All CAH facilities maintain network agreements with partner hospitals.

Recommendations

EMS agencies should strive to submit PPCR data on a consistent basis, and in the proper format. Mutual Aid agreements should be maintained on a regular basis, and adhered to on a consistent basis.

CAH facilities should also maintain network agreements, and monitor transport factors for tracking purposes.

Mass Casualty Preparedness

All CAH counties reside within one of the Hospital Preparedness regions in Virginia.

There was evidence of varied participation by both the CAH facilities, as well as the EMS agencies in terms of MCI training/disaster preparedness.

Recommendations

CAH facilities should strive to take an active role in mass casualty preparedness in the area, and collaborate with the EMS agencies in their catchment areas to ensure that there is adequate resources and planning for a mass casualty event.

Hospital Capabilities

The seven CAH facilities have many differences, but many similarities. Currently, all but one facility (Bath Community Hospital) is part of a larger healthcare system. Two CAH facilities (Page Memorial and RJ Reynolds Patrick County) have been acquired within the past three months.

Hospital Capabilities

One CAH CEO put it best (not a direct quote):

It's not the Medicaid reimbursement that's the main issue, it's overcoming the financial burden of uninsured patients.

Hospital Capabilities

Several CAH facilities have faced closure of units, cessation of services, and layoffs.

Some have adapted, and are adapting, shifting their focus to outpatient services, but people in rural areas still require access to care.

Most CAH facilities are maintaining a ED that is staffed 24/7, and maintain network agreements with partner facilities.

Hospital Capabilities

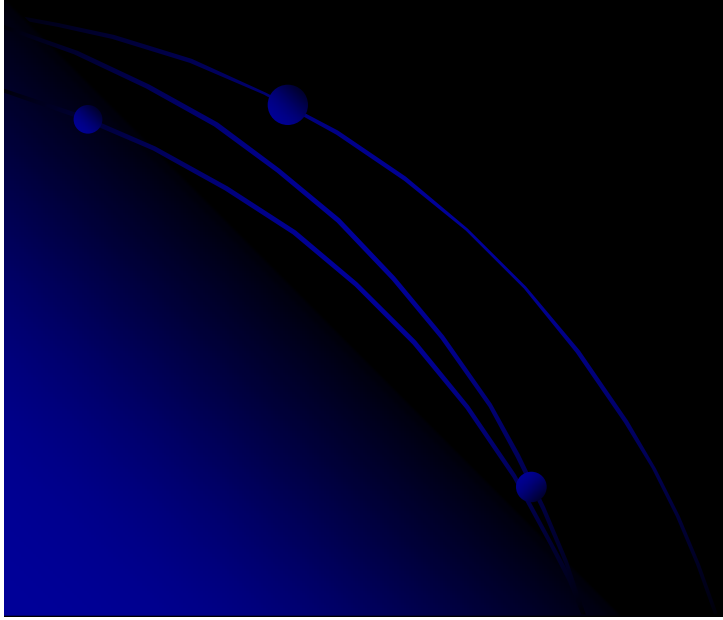
Several CAH staffers are intimately involved in the EMS systems in their areas. Unfortunately, this is not occurring in all areas served by CAH facilities.

Recommendations

Both the CAH facility, and the EMS agencies that serve the area around CAH facilities need to recognize the value of the other as it pertains to the patient care matrix.

- -SWOT
- -Build/Foster Relationships
- -How can they help each other?

What it all means…



Where can I find copies of the reports?

http://www.vdh.virginia.gov/oems/

Click on “Localities and EMS Officials”

Giles, Patrick, and Rockbridge reports now online - Dickenson, Page, and Shenandoah reports will be up in March ’09.

Contacting OEMS

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Questions?


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