

VTN VIRGINIA TELEHEALTH NETWORK
Improving Access To Quality Health Care

Telemedicine and Telehealth: The Virginia Telehealth Network and Virginia's CAH-HITN Program

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Advancing Health Equity For All Virginians

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What Is Telehealth?

- Simply defined as:
 - The use of information and telecommunications technologies to distribute health services and education across or between health care systems.

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Telehealth Defined

- In reality, much more complex...
 - Telehealth is an organizational business practice using a combination of clinical, technical and business processes supported by policy, which enables an health-related organization or health care institution to dynamically exchange electronic health information, health services and health education between providers, and/or providers and patients to facilitate the delivery of health care services.

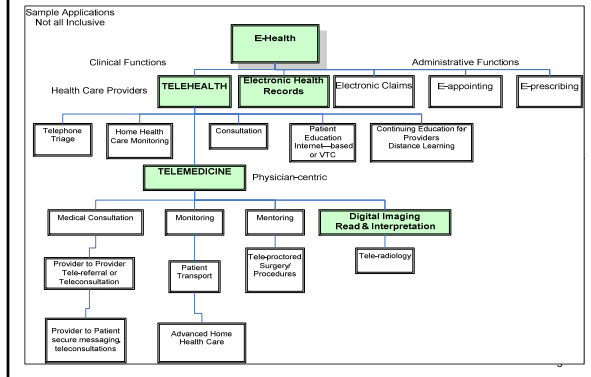
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Telehealth Defined

- Ideally, all healthcare encounters should be captured in a longitudinal multi-media electronic health record, however, few exist.
- Related terms/fields: E-Health, Telemedicine, Informatics, HIT, and other forms of medical communications

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Scope of Telehealth





Fit for Telehealth

- Population-based (seniors, children, immigrants, etc.)
- Disease Management (chronic diseases, asthma, melanoma, mental health etc.)
- Emergency Services (urgent and emergent care during a natural disaster or other crisis)
- Diagnostic Interpretation & Treatment
- Quality-Improvement (improving an existing service)
- Cost Avoidance/Other System Benefit (decrease travel, reduce medical errors, reduce redundancy of medical tests, improve prescribing practices, etc.)

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Virginia Telehealth Network (VTN)



- The concept of VTN was spearheaded in 2002 by the Division of Primary Care and Rural Health
- It began as an informal coming together of healthcare stakeholders sharing a common desire to address inequities in access to healthcare services using telehealth

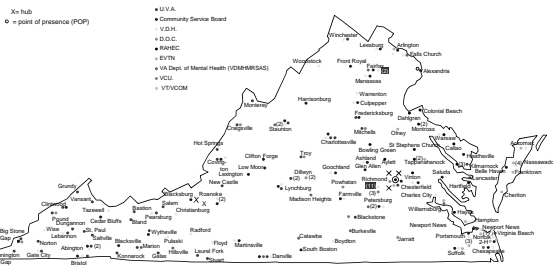
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Virginia Telehealth Network (VTN)

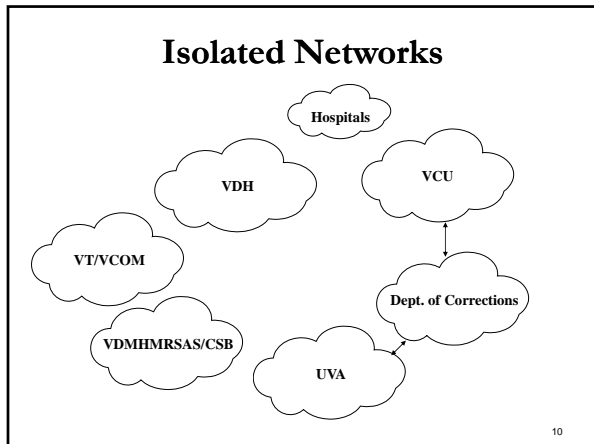
- Historical approach to telehealth in Virginia
 - Applications designed and developed by each institution driven largely by reimbursement schemes
 - Clinical applications are VTC-based medical specialty consultations or tele-radiology
 - No central focus on a particular health problem

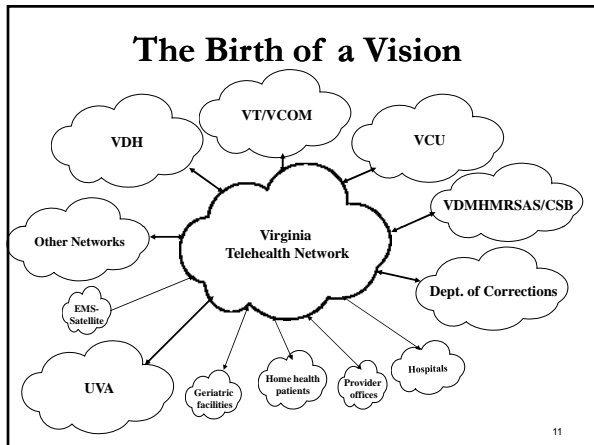
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Snapshot of Telehealth Equipped Sites in Virginia (December 2003)



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Virginia Telehealth Network (VTN)

- Early strategy for VTN (starting in 2004)
 - Population perspective - access issues and health disparities
 - Focus on infrastructure improvements without a specific healthcare orientation

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- The group's meetings and planning became formalized with the incorporation of VTN in August 2006
- In 2007, VTN completed its formation by appointing a Board of Directors and Executive Director – now pending 501c3 status expected by Dec 2008

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Vision

VTN believes that all Virginians should have access to high-quality healthcare regardless of their location — rural, urban or suburban-and that their health information should be securely shared among providers using technologies that support safe and timely care delivery when and where it is needed.

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Mission

VTN devotes its resources to advancing the adoption, implementation and integration of telehealth and related technologies into models of healthcare statewide-- and promotes the integration of health systems to support the delivery of care for all Virginians.

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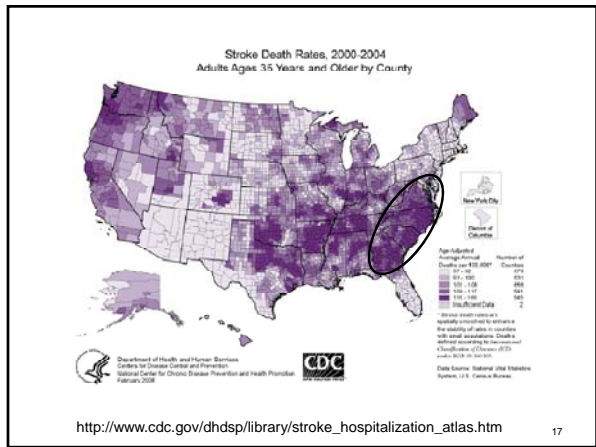
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Unifying Strategy Adopted in Spring 2007

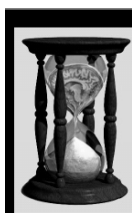



Public Health Problem Focus:
Many patients impacted by stroke do not receive the most advanced stroke treatment possible.

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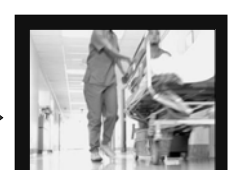
Acute Stroke Care





"TIME IS BRAIN"





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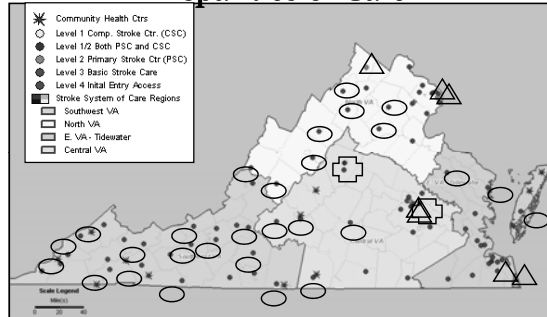
Stroke Evaluation Targets for Thrombolytic Candidates

	Time
■ Door to doctor	10 minutes
■ Access to neurological expertise*	15 minutes
■ Door to CT completion	25 minutes
■ Door to CT read	45 minutes
■ Door to treatment	60 minutes
■ Access to neurosurgical expertise*	2 hours
■ Admit to monitored bed	3 hours

* By phone or in person

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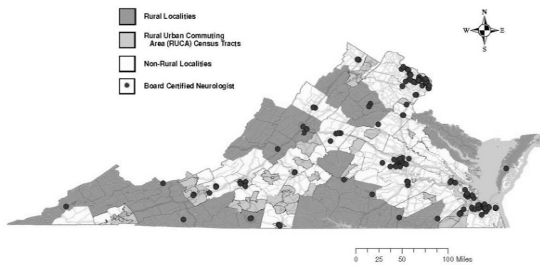
Fragmentation and Disparities of Care



Virginia Hospitals by Stroke Center Designation

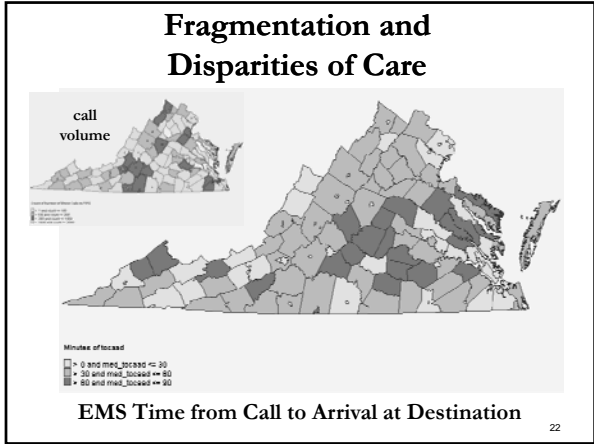
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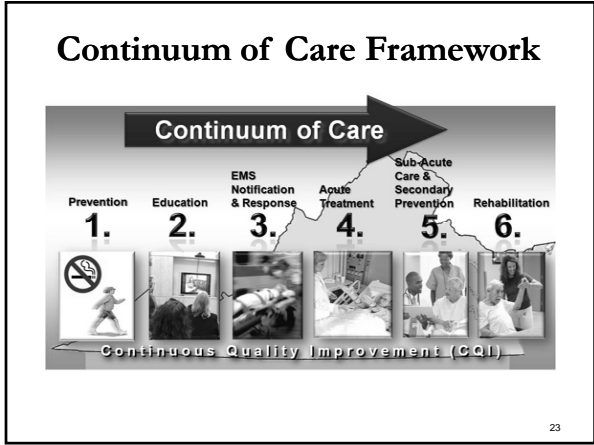
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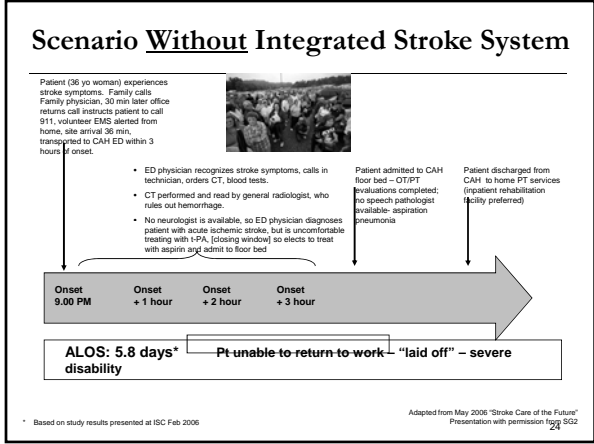


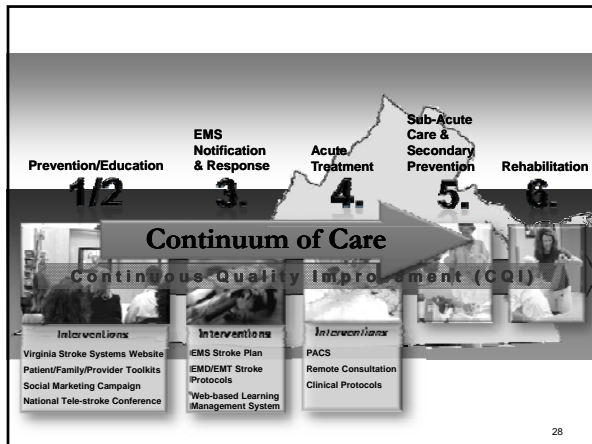
Board-Certified Neurologists in Virginia by Rurality

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Prevention/Education

Interventions

- Virginia Stroke Systems Website
 - <http://virginiastrokesystems.org>
 - Content Management System
 - Vendor: Woodpile Studios
- VAST Toolkits (Family, Community)
- Stroke Social Marketing Campaign
- National Telestroke Conference in Northern VA
 - Dec 9-10, Co-sponsored by the American Telemedicine Association




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EMS


Interventions

- Regional EMS Stroke Plan
- Enhanced Stroke Protocols
 - 911 Emergency Medical Dispatch
 - EMS- First Responders
- Improved EMS Documentation
- Web-based learning management system
 - Vendor: **ziiva**




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Acute Stroke - "Telestroke"




CT Scan



RP-7



Remote Site




Images transmitted


Live Image of Patient in Rural Hospital as Seen By Physician in "Stroke Center" (Note image of physician as a part of the 2-way transmission)

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RP7 Robot "Remote Presence"

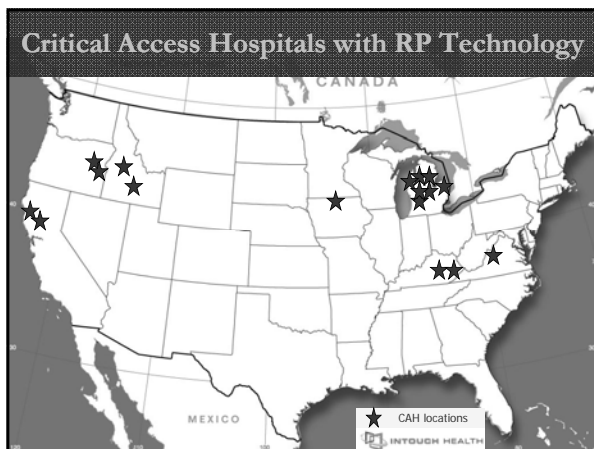
■ InTouch Health – deployed now at UVA-BCH





~5 foot – 200 lbs – 150 "eyes" – infrared sensors

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MICHIGAN STROKE NETWORK

some things never change

Rural Telehealth Challenges

- Weaknesses in health care managerial culture
- Lack of understanding of HIT value/benefits by Providers/Patients
- Reimbursement & Capital Costs
 - Aligning Financial Incentives
 - Driving Cost-Effectiveness (i.e. Chronic Care & Disease Mgmt)
 - Start-up Costs Capital Investment
- Standards (Clinical & Communications)
 - Quality & Safety

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Rural Telehealth Challenges

- Infrastructure Issues
 - Inadequate and/or Costly Network Infrastructure / Broadband Access
 - Interoperability
- Human Dimension Issues
 - Arrangements to Practice in an e-enabled Environment
 - Practitioner and Patient Acceptance
 - Licensure, Accreditation, Certification
 - Legal (Stark Law, Liability, FDA, HIPAA)
 - Training an HIT Workforce

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Questions?

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