

Health Information Technology Issues for Rural, Small & Safety Net Facilities: Overview and Introduction

Minnesota eHealth Advisory Committee
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About Rural Health Care

- 80% of land area, 30% of population
- Demographics & health status
 - Age & income, health status, health coverage, diversity
- Distance
 - Time to emergency care
 - Travel to specialty care
- Workforce & Infrastructure Challenges
- Low volume
- Rate of transfers
- History of creativity/innovation/collaboration
- 80 Critical Access Hospitals, 71 Rural Health Clinics, 10 rural FQHC sites, Migrant Health sites, SNFs, home care, EMS, etc



About Rural Health Care, cont.

Small, medium, large

Independent, affiliated, owned

■ Systems

- MeritCare
- Dakota
- SMDC/Benedictine
- Sioux Valley
- Avera McKennan
- Mayo
- Good Samaritan/Beverly
- North Ambulance
- APMC
- Catholic Health Initiative
- CentraCare
- etc

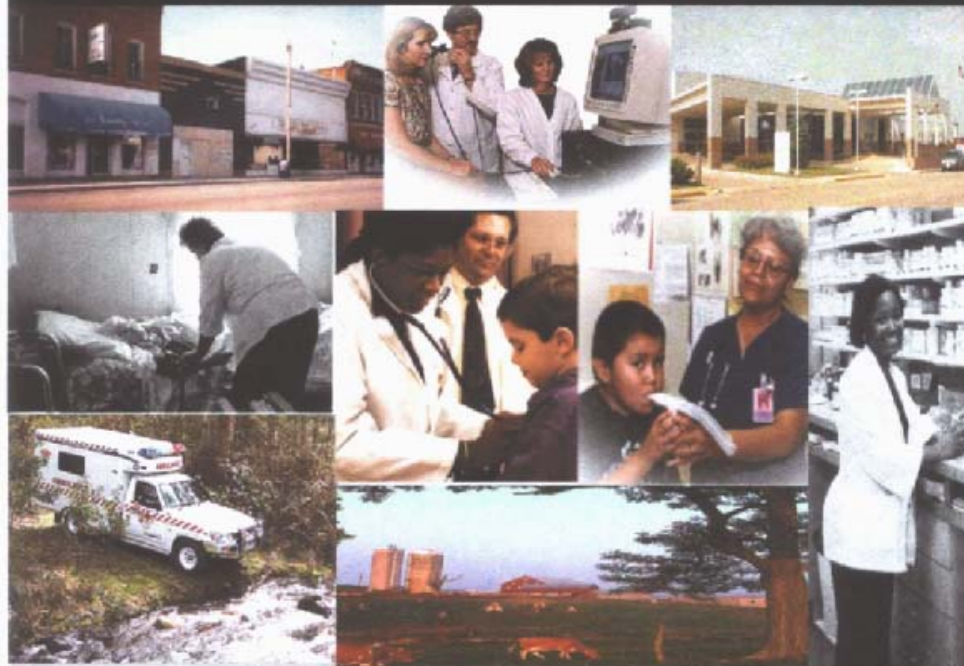
■ Networks

- SISU
- Wilderness
- North Region
- MN Rural Health Cooperative
- Lac qui Parle
- Northern Minnesota Network
- Medisota
- etc



QUALITY THROUGH COLLABORATION

The Future of Rural Health



QUALITY CHASM SERIES

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

<http://www.nap.edu/catalog/11140.html>
2005



office of
Rural Health Primary Care
MINNESOTA DEPARTMENT OF HEALTH

IOM Strategy to Address Quality Challenges in Rural Communities

1. Adopt an integrated, prioritized approach to addressing personal and population health needs at the community level.
2. Establish a stronger quality improvement support structure to assist rural health systems and professionals.
3. Enhance human resource capacity of rural communities:
 - healthcare professionals
 - rural residents
4. Monitor and assure that rural healthcare systems are financially stable.
5. **Invest in building an information and communications technology (ICT) infrastructure.**



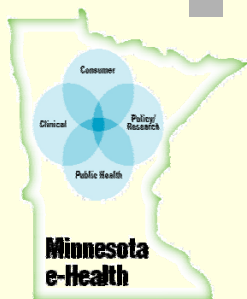
ICT ??

Don't they mean HIT?



Components of Rural ICT

- EHR & Exchange
- Pharmacy
- Lab
- Imaging
- QI Data Management
 - Benchmarking
 - QI Collaboratives
- EMS & Trauma data
- Billing / e-business, practice management
- Telehealth
 - Medicine :
Emergency, specialty
 - Mental Health
 - Home Care
 - Long Term Care
 - Telepharmacy
- Communications:
 - Continuing Ed
 - Patient Education
 - Videoconferencing

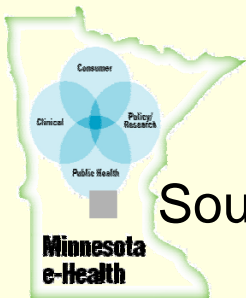
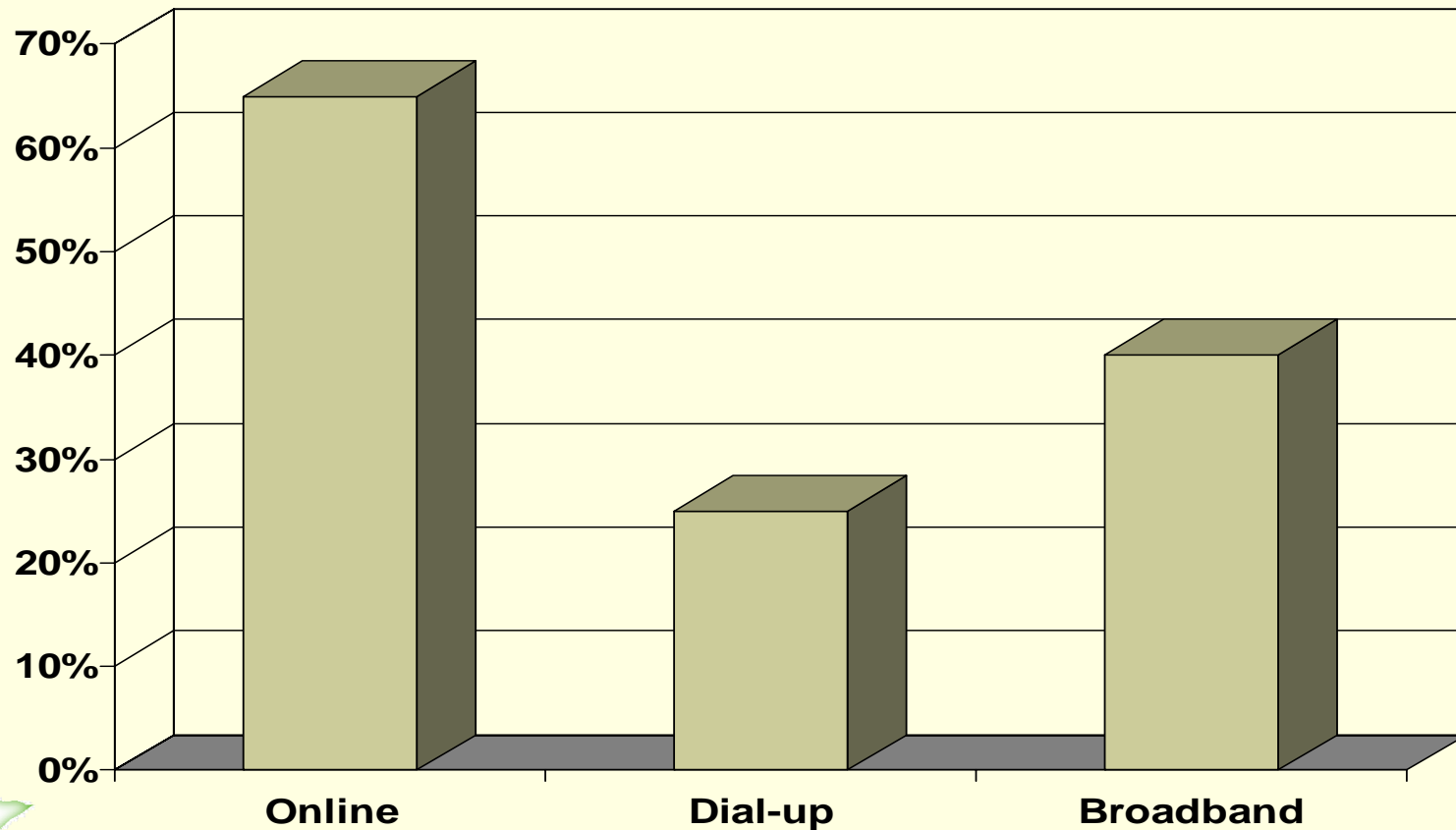


The Rural IT Infrastructure

- Internet
- Broadband
- 80 Telephone Companies
- IT equipment and support



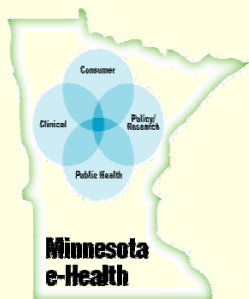
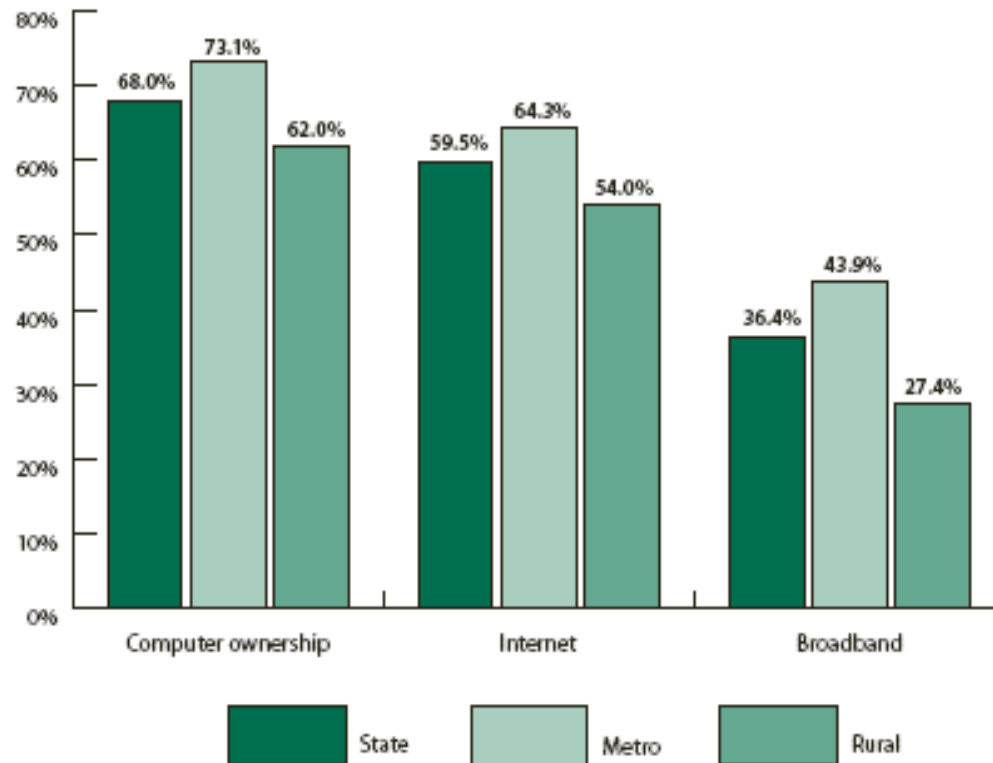
Rural MN Businesses



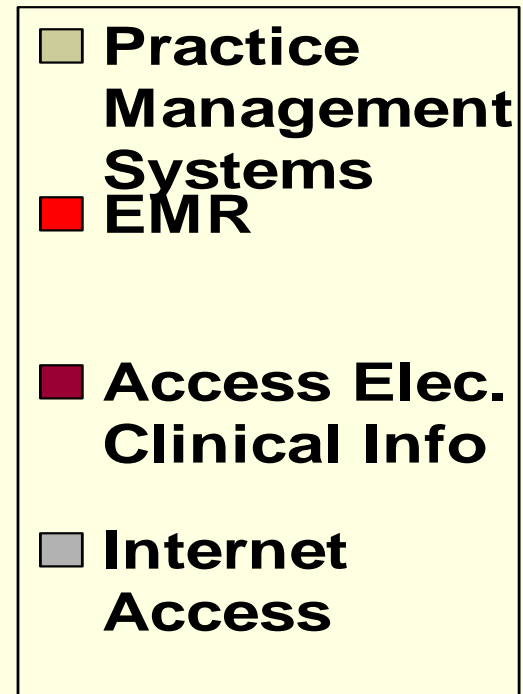
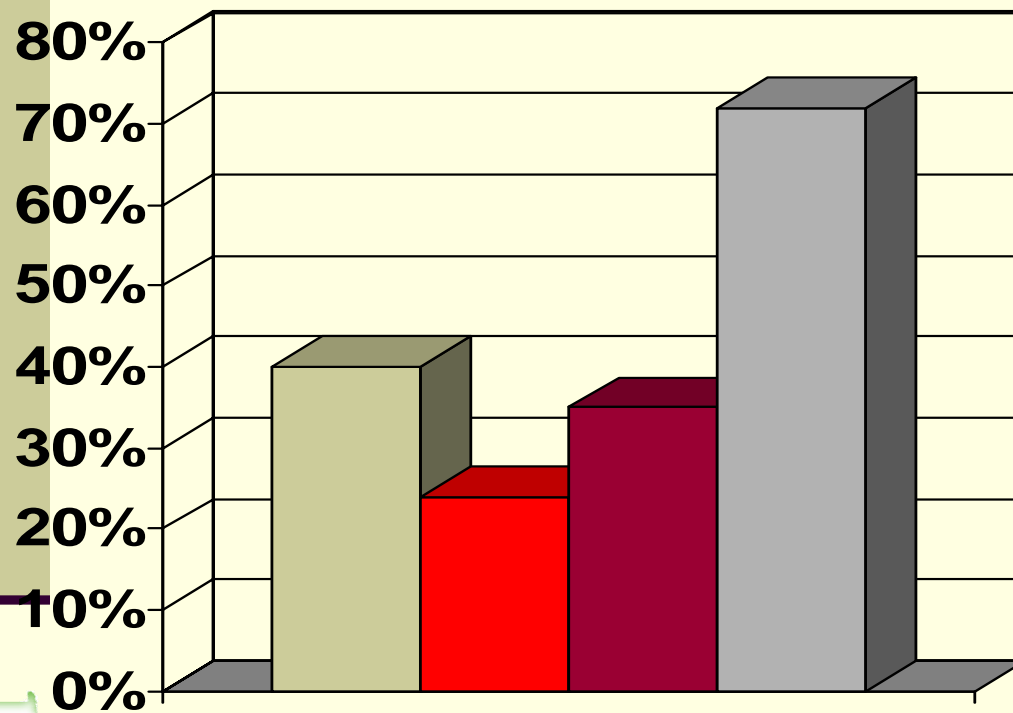
Source – Blandin Foundation *Get Broadband* Program

Rural - Urban Comparison – Residential

Center for Rural Policy and Development, St. Peter



Rural Primary Care Clinics - Vermont

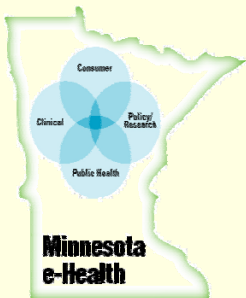


Usage of HIT-related Components



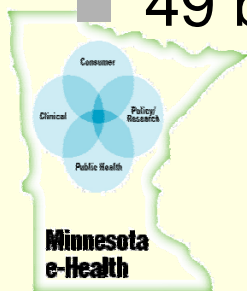
Current Status

- Assessment info
 - DOQ-IT Findings
 - Small Hospital data – Fed. SHIP Program
 - AHA survey
- Resources
 - State and federal grant funds – limited funds, varied response
 - Universal Service Fund – ~25% internet discount for rural health organizations
 - DOQ-IT



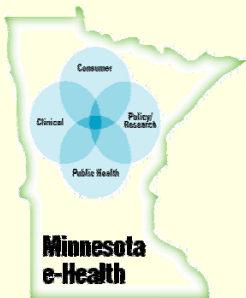
SHIP - Small Rural Hospital Improvement Grant Program

- Administered by HRSA, Federal Office of Rural health Policy
- Authorized by Section 1820(g)(3) of the Social Security Act
- Annual \$9000 grant to each eligible hosp through SORH
- Use grant funds for projects in 3 areas:
 - PPS
 - HIPAA
 - Reduce medical errors and support QI
- 49 beds or fewer



SHIP Grant

- 46 states, 1600 hospitals
- 2004 & 2005 ICT inventories
 - > 72% use SHIP funds for ICT purchases
 - Most (70% of ICT) use for infrastructure
 - Hardware
 - Software
 - Networks
 - Broadband or Internet access
 - Homecare vs network PACS installation
 - Clinical (24% of ICT) use for pharmacy IT

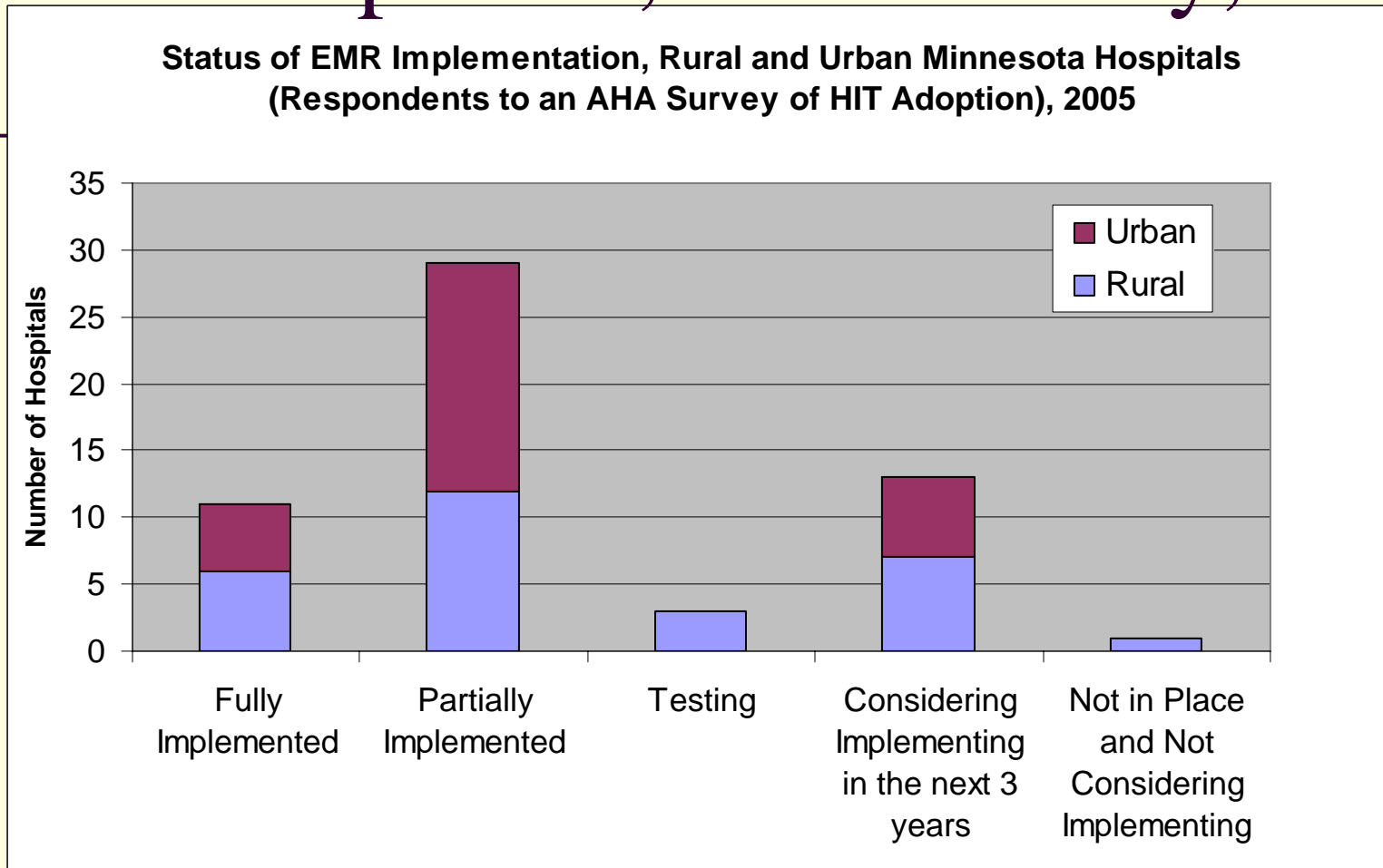


SHIP Grants

- Minnesota: Approx. 80 hospitals funded
 - 80% of funds used for ICT in 2004
 - Primarily clinical applications
 - Pharmacy
 - QI data management
 - HIM is chart notes & digitizing pt records
 - 67% of funds used for ICT in 2005
 - Primarily security upgrades (HIPAA deadline)
 - Clinical: Pharmacy

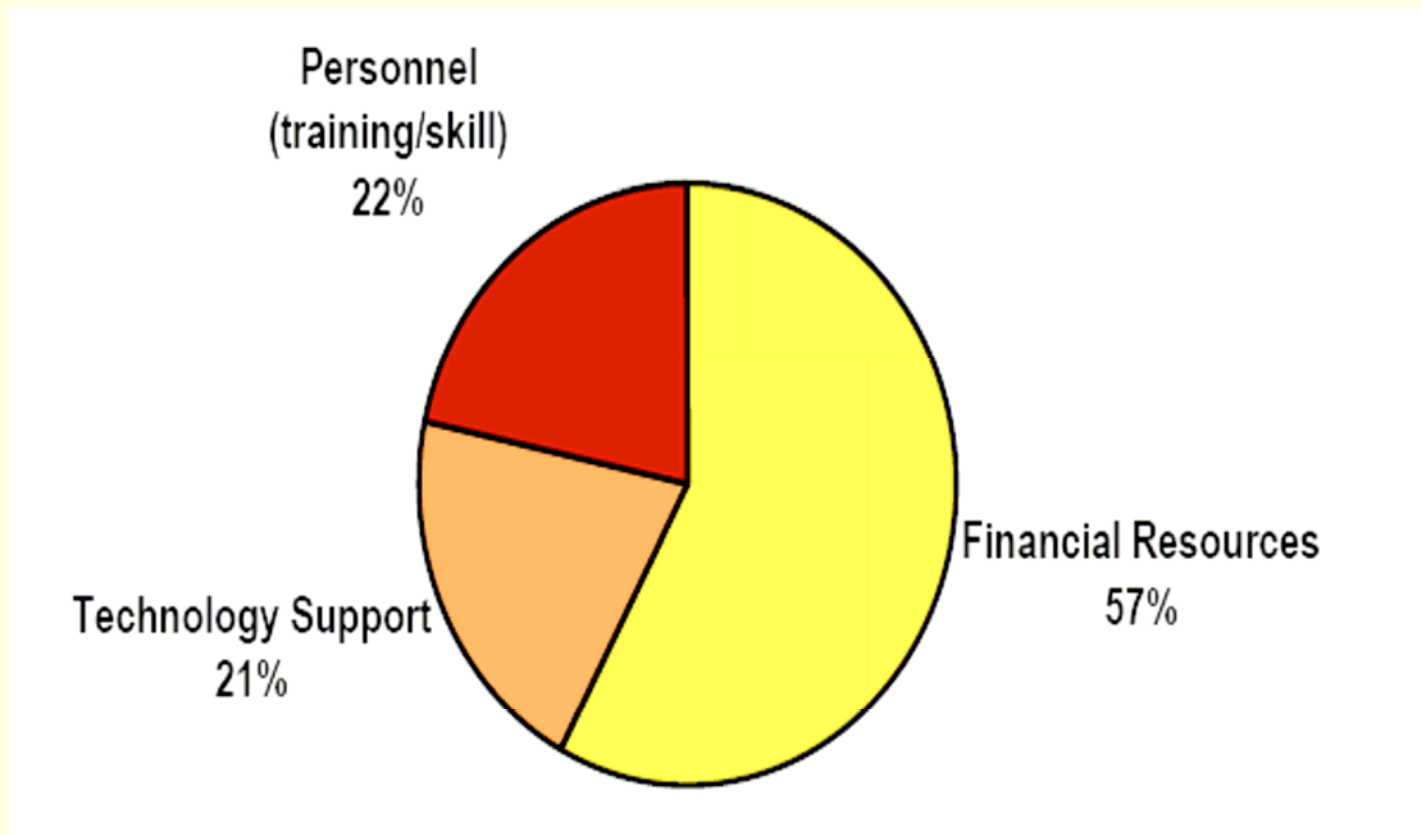


MN Responses, AHA Survey, 2005



n = 36 rural hospitals, 29 urban hospitals

Obstacles to Rural Hospital Use of HIT



2005 Dixon Hughes survey of CAHs n= 201



Observations on Clinic EHR Adoption in Minnesota

March 21, 2006

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Stratis Health

- Independent, not-for-profit quality improvement organization
- Works with health care professionals and consumers to improve health care
- Whole state and full continuum of health care settings
- Physicians, QI experts, data analysts, coders, education, and communication specialists on staff
- Serves as Medicare Quality Improvement Organization (QIO) for Minnesota



DOQ-IT

- Doctor's Office Quality – Information Technology (www.doqit.org)
- Goal: promote adoption of electronic health records in adult primary care physician offices (see www.stratishealth.org)
- Includes focus on electronic reporting of quality measures



Observations on Clinic EHR Adoption in Minnesota

- Based on Stratis Health's DOQ-IT work
 - Survey of MN adult primary care for clinic sites
 - Readiness assessments with DOQ-IT applicant clinics



Survey of Current EHR Adoption Status

- June - October, 2005
- Survey adapted from national MGMA survey
- Survey distributed to 603 adult primary care clinic sites in MN
- 75% response rate
- Results are based on 452/603 primary care clinic responses



Survey Results



■ Degree of EHR Implementation

- Fully implemented 17%
- Implementation in process 29%
- Implementation in next 12 months 11%
- Implementation in next 13-24 months 16%
- No plans for implementation in next 24 months 27%



National MGMA survey comparison*

- Results from national MGMA/University of Minnesota survey indicate that while EHR adoption is occurring, progression is slow
- After adjusting for sample stratification by practice size, an estimated 14.1% of group practices throughout the United States had an EHR implemented
- Additional results confirm previous research findings that larger clinical practices are more likely to have higher and faster increasing EHR adoption rates than smaller practices

*Gans David, Kralewski John, Hammons Terry, Dowd Bryan. Medical Groups' Adoption of Electronic Health Records and Information Systems. Health Affairs. 2005. 24(5) 1323-1333.



Comparison* (continued)

- Stratis Health survey not a direct comparison to national survey due to differences in survey methodology and populations
- Although results are not directly comparable, it is of interest that among the 452 primary care clinics in Minnesota responding to the survey, 17% indicate full EHR implementation with an additional 29% indicating partial implementation
- Stratis Health is currently collecting additional practice size data from both survey responders and non-responders in order to examine practice size differences



Urban-Rural Comparison

- No significant urban-rural differences in proportion of survey respondents
- Rural, N=257
 - 194 (75%) Respondents
 - 63 (25%) Non-Respondents
- Urban, N=344
 - 256 (74%) Respondents
 - 88 (26%) Non-Respondents



Urban-Rural Comparison



<u>Implementation Stage</u>	<u>All</u>	<u>Rural</u>	<u>Urban</u>
Fully implemented	17%	13%	20%
Implementation in process	29%	23%	34%
Implementation in next 12 months	11%	13%	10%
Implementation in next 13-24 months	16%	22%	11%
No plans for implementation in next 24 months	27%	29%	25%



Survey Results (continued)




■ Top three barriers:

1. Lack of capital resources
2. Concern about physician ability to input data
3. Concern about loss of productivity during transition to EHR



Survey Results (continued)

- 
- Top three government actions that could impact decision to implement EHR
 1. Grant money
 2. Tax credits
 3. Low interest loans

Readiness Assessment for MN DOQ- IT applicants

- 60-90 minute structured telephone interview with administrator and EHR physician champion
- Attitudes and Skills survey of all clinic employees by staffing type (physician, clinical support and administrative)
 - Attitude survey encompassed 12 questions
 - Skills survey encompassed 16 questions



Attitudes Survey

Question		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	They increase practice efficiency: There are many ways practices are made more efficient through greater access to data, more complete and legible documentation, and reduction of rework. Disagreement with this statement may require more specific examples	17 (70.8%)		4 (16.7%)		3 (12.5%)
2	They are not as secure as paper: EHRs can be made more secure than paper records if policies about security access controls, audit trails, and proper workstation utilization measures are adopted. Disagreement with this statement suggests need for education		4 (16.7%)	9 (37.5%)		11 (45.8%)
3	Our patients are expecting us to use them: Many patients use computers; and may wonder about how well their clinicians are keeping up to date if they are not using computers. Disagreement with this statement identifies the need for managing change.	8 (33.3%)		16 (66.7%)		0 (0%)
4	They will improve my personal productivity: Setting realistic expectations about productivity is important. Some providers have "heard" that using a computer takes longer; others expect to see many more patients. Disagreement with this statement may signal	10 (41.7%)		12 (50%)		2 (8.3%)
5	They are difficult to learn how to use: Some skepticism about the difficulty of learning to use an EHR is healthy; being overconfident of one's ability to learn to use an EHR can actually work against its adoption. Any set of middle-of-the-road answers to		3 (12.5%)	17 (70.8%)		4 (16.7%)
6	Their use in the examining room is depersonalizing: Studies demonstrate that this is a provider perception not shared by most patients. Agreement with this statement signals that providers may not be confident in their computer skills or generally resist ³¹		5 (20.8%)	8 (33.3%)		11 (45.8%)

Attitudes Survey (continued)

7	Their cost is beyond our budget: A healthy skepticism about cost is important. Strong disagreement suggests an unrealistic view of resource requirements; strong agreement may be used as an excuse not to acquire an EHR for other reasons.	0 (0%)	23 (95.8%)	1 (4.2%)
8	They improve quality of care: Improvement in quality of care is probably the primary long-term benefit of an EHR. Disagreement with this statement may suggest that current quality issues are not recognized, or suggest a lack of appreciation for EHR functions.	16 (66.7%)	8 (33.3%)	0 (0%)
9	They reduce staffing requirements: Vendors often attempt to sell EHRs on the basis of staff reduction when only productivity improvements are feasible. Strong agreement with this statement is unrealistic; strong disagreement may suggest reluctance to adopt.	10 (41.7%)	14 (58.3%)	0 (0%)
10	Computerized alerts can be annoying: Too many alerts can be annoying, but none defeat the purpose of the EHR. Strong agreement may demonstrate resistance to change; strong disagreement, however, may put an undue burden on the practice.	0 (0%)	23 (95.8%)	1 (4.2%)
11	We are in an age where we must exchange data electronically with other providers and payers: Cautious optimism might be the best response, especially as systems are not fully interoperable and full-blown interfaces may not be necessary where ability to view data is necessary.	20 (83.3%)	4 (16.7%)	0 (0%)
12	Medicine is too complex anymore without access to evidence-based support: Responses to this statement may vary by specialty. Agreement is a strong indicator that the value of an EHR is understood; disagreement may foster fragmentation of health care.	14 (58.3%)	9 (37.5%)	1 (4.2%)

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The contents presented do not necessarily reflect CMS policy.

Top Areas of Concern on Attitudes Survey



- They are not as secure as paper
- Their use in the examining room is depersonalizing
- Our patients are expecting us to use them

Top Areas of Confidence on Attitudes Survey



- Their cost is beyond our budget
- They are difficult to use

Anecdotal Observations from Readiness Assessment

- Challenges and readiness factors vary substantially among clinics
- Many issues seem similar for urban vs. rural, though rural challenges more pronounced for:
 - Availability of IT support
- Differences in challenges more pronounced for small vs. large:
 - Financing
 - Staff capacity
 - Existing IT infrastructure in practice
 - Ease achieving consensus within group and managing change

In conclusion...

- MN ahead of nation in adoption (and readiness attitudes)
- Some risk of small clinics being left behind
- Clinics are still on the learning curve regarding EHR
- Having a road map for EHR adoption appears to be very helpful





Stratis Health is a non-profit independent quality improvement organization that collaborates with providers and consumers to improve health care.

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Candidates for Barrier Elimination (IOM)

- Deficiency of broadband in rural America
- Prohibitive costs of some telecommunication lines
- Excessive charges by local area telecommunications access networks , especially across regions
- Limitations of the Universal Service Fund's Rural Healthcare Program
- Absence of clear and consistent definitions and policies (licensure, credentialing, payers)



Rural & Small Practice Challenges

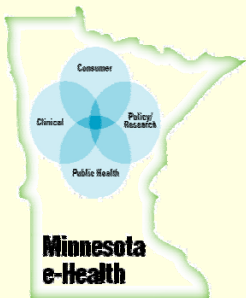
- No IT support let alone an IT Department
- Hard to find M.D. or Adm leaders / change agents
- Other business priorities i.e. “surviving”
- No business case for connectivity / linkages to other institutions (stand-alone EHRs ?)
- No aggregate buying power (hence pooled vendor selection processes)
- Referral pattern issues
- Stark (self-referral), anti-kickback, antitrust, etc

source: HealthTech Strategies



Recent National Developments

- National Rural Health Association, *Policy Brief on Rural Health Information Technology*, March 2006
 - *Selected Recommendations:*
 - Establish regional networks in rural areas
 - Assure that rural communities have the technology infrastructure necessary to support regional networks, HIT and telehealth
 - Liberalize the Stark laws
 - Create funding mechanisms to support infrastructure and health information technology in rural areas
 - Create job training programs that will provide a skilled technology workforce in rural areas



Recent National Developments

- National Advisory Committee on Rural Health and Human Services, *Report to the Secretary* - forthcoming April 2006
 - Recommendations on the infrastructure to support HIT, a rural research agenda for HIT, Federal support for HIT activities, the need for rural representation at HIT forums
- American Health Information Community
 - Sec. Leavitt calls for EHR accessible to first responders – March 7, 2006



Focusing Attention On Rural Communities

“Efforts to develop local and national health information technology infrastructures should focus specific attention on rural communities”

Further, the benefits of HIT “may be even more substantial in rural communities”

(“Quality Through Collaboration: The Future of Rural Health Care”, Institute of Medicine, November 2004).

