Health Information Technology in Community Health Centers – A Health Improvement Opportunity

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Community Health Network of West Virginia

- The Network is a tax-exempt, non-profit health center-controlled West Virginia corporation.
- The nineteen Network member health center organizations collectively provide services to over 120,000 patients in 32 of West Virginia’s 55 counties each year, with 78 delivery sites and nearly 400,000 patient encounters annually.
- Our member health centers provided over $40 million in health care services last year, with 70% of this care to Medicare, Medicaid and uninsured patients.
West Virginia is a rural state:

- Sixty-four percent of the state’s population lives in a rural area.
- Forty-five of West Virginia’s fifty-five counties are designated as rural.
- Twenty-three of the fifty-five counties have fewer than 45 residents per square mile.
- Fifty counties have some portion of the county designated as a medically underserved area and thirty-seven counties have some portion designated as a health professional shortage area.
Health care delivery in West Virginia

- 54 acute care community hospitals, 18 critical access hospitals, with a total of 70 hospitals;
- Seven state-operated facilities, 2 behavioral health facilities, four long-term care, one community hospital (all implementing a version of the VA’s Vista EHR);
- 14 behavioral health centers, and 65 certified intermediate care facilities;
- 34 nonprofit primary care centers, with 139 primary care service sites (including 41 school-based health centers), providing services in or to 47 counties;
- 54 local health departments, 73 home health agencies and 20 hospice organizations;
- 3,743 MDs and 507 DOs active and practicing in West Virginia according to the respective licensing boards. Approximately one-third of West Virginia’s physicians are self-employed in a solo practice. More than one-third of West Virginia’s physicians provide primary care.
Health Care Utilization in West Virginia

- 293,093 Hospital discharges in 2006;
- 3.3 million nursing home patient days;
- 600,000 hospital outpatient encounters, 1.0 ER visits (twice the national average);
- 6 million ambulatory care encounters, 2 million of which were primary care visits (half in practices of less than five providers);
- 27 million filled prescriptions (15 per capita) at a cost of $1.5 billion;
- Total hospital cost $4 billion; $2.6 for professional services; and
- 6.5 million laboratory tests
The health of West Virginia created a need for a population-focused health improvement tool

Of West Virginia adults:
- 64% are obese or overweight;
- 32.4% have high blood pressure (with another 28% at-risk with pre-hypertension);
- 37.5% have high cholesterol;
- 28.2% are current smokers;
- 9.8% have been diagnosed with diabetes (and another 3% are undiagnosed diabetics);
- 40% are pre-diabetic; and
- 85% have one or more risk factors for chronic disease.

(Source: West Virginia Department of Health and Human Resources)
The Network health improvement program

The Network and its members have identified a number of significant health improvement opportunities and have targeted:

- diabetes,
- cardiovascular risk reduction,
- depression,
- weight management and physical activity,
- asthma; and
- cessation of tobacco use

as focus areas of its health improvement program.
Why focus on health improvement? The impact of complications of diabetes:

People with diabetes have:
- 4 times risk for blindness
- 2-4 times risk for heart attack
- 19 times risk for kidney disease
- 28 times risk for limb amputation

The average lifetime cost of each new case of diabetes is $250,000.
The average lifetime care for each new case of heart disease is nearly $500,000.
A person diagnosed with diabetes at age 40 faces 10 years of life lost prematurely.
MedLynks is a unique adaptation of a public domain solution

- MedLynks is an adaptation of the RPMS software used by Indian Health Service (IHS).
- RPMS is public domain software that is an award-winning health improvement tool used by a HRSA-funded agency, IHS.
- It has UDS and FQHC compatible functionality and a number of clinical data collection and reporting tools.
- The Network is the first in the country to adapt a public domain solution for use in the community health setting.
Why develop MedLynks instead of purchasing a commercial product?

- Based upon proven and stable RPMS used by IHS for population-based health improvement and also utilizes VA’s Vista-base for clinical flexibility. RPMS used in 69 IHS facilities and selected by NASA for use in occupational health. RPMS is public domain software.
- State of WV implementing Vista in seven state-owned facilities. Access to national templates and health improvement processes.
Why develop MedLynks instead of purchasing a commercial product?

- Most commercial systems provide for electronic documentation of existing health care delivery process, not a transformation vehicle for health improvement.
- Our members want to deliver superior care.
- Funded by HRSA ICT grant for adaptation.
In 2004, 914 federally qualified health centers (FQHCs) provided medical and dental primary care services to 13.1 million patients.

Almost 10,000 full-time-equivalent (FTE) physicians, nurse practitioners, physician assistants, and certified nurse midwives provided care.

Study found that EHR-related benefits for most CHCs did not pay for ongoing EHR costs, yet quality improvement (QI) was substantial.
EHR adoption by CHCs

- Making some rough assumptions, CHCs will need $550 million–$1.1 billion, or $55–$110 million per year spread over ten years, to pay for EHRs, including technical and organizational assistance.

- Assumptions include a ten-year EHR implementation period in the CHC sector, $35,000–$50,000 per FTE provider in initial costs, and an average $5,000–$15,000 per provider net annual cost in the first four years post-implementation.

EHR adoption by CHCs

- Initial EHR costs per FTE billing provider averaged almost $54,000.
  - 30% hardware ($17,022)
  - 28% software ($15,697)
  - 22% installation/training ($11,999)
  - 12% lost productivity ($6,763)
  - 8% other/connectivity (4,164)
- Ongoing costs per FTE provider per year averaged $20,610.
- Initial costs averaged $16.20 per medical encounter and ongoing costs averaged $6.21 per medical encounter
- CHCs had higher EHR costs and lower financial benefits, and they made much greater QI efforts.

Advantage of Network deployment of MedLynks

- Centralized hosting, reducing hardware cost;
- Centralized support and staffing, reducing ongoing support costs and clinical application support;
- Use of public domain solution reduces software licensing fees (some for certain applications and national codes, i.e., CPT, ICD);
- Access to national templates and tools of IHS and VA reduces some set-up costs;
- Average cost is $4,000 per FTE (compared to $26,000 in Health Affairs study) for set-up and training, less under ASP standard configuration deployment;
- On-going cost is $200 to $400 per FTE per month (compared to $1,400 in Health Affairs study).
MedLynks development is coordinated with participation in West Virginia Medicaid Redesign

System needs to:

- support enhanced access to preventive and disease management services, defined personal health management goals and responsibilities and rewards for healthy behavior;
- meet needs of “Advanced Medical Home”;
- provide integration with telehealth applications; and
- facilitate advanced planned care with strong self-management components.
Public policy considerations for HIT in community health settings

- Health care providers get only about 11 percent of the savings from electronic health records; the real benefit goes mainly to private and public insurers because they are paying for fewer unnecessary tests and automated record-handling is a big cost saving for the payers;

- Significant savings are possible in use of EHR, but initial and ongoing cost is a barrier to adoption in light of how the benefit from adoption and use flows (above);

- An estimated one-fourth of primary-care doctors use electronic health records, but only 5 percent of them are in offices with five doctors or fewer — where about half of all doctors practice.
Public policy considerations for HIT in community health settings

- Research demonstrates that preventive programs cost money upfront, but can cut overall treatment costs to insurers by 30 percent or more, yet few insurers pay for preventive care. A third of people with health coverage switch insurers every year, so insurers are reluctant to pay for preventive health measures could become another company’s gain.
The benefit of EHR adoption

- Studies predict a gain of as much as 30 percent in efficiency from EHR use, mostly through reducing unnecessary tests and prescriptions, paperwork and medical mistakes. In West Virginia, this amounts to a $3 billion savings (the total state general revenue budget for 2007 was $3.629 billion)
The need for care coordination and use of EHR:

- The average Medicare beneficiary has 15 ambulatory care visits annually, with 6.4 different health care providers and 20 active prescriptions.

- A Medicare beneficiary with 5 or more chronic conditions has 37 visits annually, with 13.8 distinct providers and 49 active prescriptions.
Lessons from West Virginia

- Community health centers can be leaders in health improvement and EHR adoption;
- Consider centralized networks to host EHR for economies of scale and public domain solutions;
- There is no free EHR; payers need to help with cost since they reap benefit;
- Leverage health improvement, EHR alone is not a “silver bullet” to contain cost without system improvement;
- Coordinate with Medicaid and consider using MITA funds to build and finance infrastructure (90% match);
- Focus EHR acceleration and financing support at the primary care and community health level for greatest ROI.
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