The Virtual Community Health Center: Context, Continuity, and Community-Oriented Primary Care

Fred Schwartz, DO, FACOFP, Thomas Bennett, DO
Monica Fernandez, MMS PA-C, Lise McCoy, EdD (ABD)
A.T. Still University, School of Osteopathic Medicine in Arizona
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For the Current Generation of Healthcare Students...

What is the best approach for training a tech-savvy generation of healthcare students?

How can we encourage graduates to serve the medically underserved in rural and urban settings?

How do we equip healthcare professionals to optimize care in a new paradigm of medical practice under the ACA?
What is a Community Health Center?

“Health Centers, also known as Federally Qualified Health Centers, or FQHCs -- provide care regardless of your insurance status or ability to pay. There are more than 1,200 health center organizations with more than 8,000 locations in urban, suburban and rural communities across the country. They can be found in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam. All health centers offer comprehensive primary and preventive health care. Many also offer dental, mental health and pharmacy services.”

--NACHC

Learn More
Part 1: VCHC Vision and Goals

Our vision is to create an adaptive, engaging, virtual education platform that will be used to train the community healthcare workforce of future.

Multiple Health Professions
- MD, DO, PA, Nurse, PT, OT, DDS
- Pharm D, Social Workers, Counselors

Target Trainees
- UGME, GME
- CHC Employees
A multi-level project and process

- SOMA Virtual CHC
- ATSU Virtual CHC
- Medical Education Virtual CHC
- NACHC Virtual CHC’s-Training All
- ACA-Virtual Clinical Practices-National Modeling and Training Tool
New Approach: The Family is Central to the Patient

- Culture
- Community
- Compassion
- Coordinated care
<table>
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<tr>
<th>AOA Competency Domains</th>
<th>VCHC</th>
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<tr>
<td>OPP</td>
<td>Approach patient as whole person, investigate structure and function</td>
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<td>Medical Knowledge</td>
<td>Complete clinical decision making simulations</td>
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<td>Patient Care</td>
<td>Explore options which consider the context, social determinants and patient values</td>
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<td>Professionalism</td>
<td>Solve ethical dilemmas / avoid illegal actions</td>
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<td>Interpersonal Communication</td>
<td>Practice communicating with patients and other team members.</td>
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<td>Practice Based Learning and Improvement</td>
<td>Plan and execute community interventions</td>
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<td>Systems-based Practice</td>
<td>Access healthcare resources and optimize care.</td>
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VCHC Work Completed, to Date

• Database of cases on file @SOMA.
• A plan to connect cases with storylines.
• Discussion with EHR vendors.
• Landscape analyses of virtual patient platforms.
• Preliminary literature searches.
• Three years of experimentation at SOMA with team building, games for learning, and population medicine research projects.
• Project Launch Meeting, July 17 at NACHC.
1. Use a VCHC to demonstrate the model.

- Model a cutting edge “People-Centered Health Home”
- Not enough primary care physicians (2014 deficit @ 58,000).
- Health care centers may be called upon to serve patients who fall through the cracks of ACA.

More than 45 million Americans are uninsured, and as a result, they experience increased morbidity and mortality. Even Americans who have insurance often face financial and other barriers to getting care. The Affordable Care Act removes most of these financial barriers. (Kocher, et al., 2010)
2. Use a VCHC to solve community health issues.

There are thousands of health issues.
- Obesity and its complications
- Aging populations
- Dietary issues
- Violence
- HIV
- Autism

Using CHC population data, a VCHC could simulate and test best practices for integrating specific health issues into community primary care.
3. Use a VCHC to teach clinical skill excellence.

- Articulate best practices, methods and equipment for CHC’s
- Integrate social determinants of health history.
- Refine clinical reasoning: prioritization of evidence and resources.
- Increase patient engagement.
- Increase community among providers.
4. Use a VCHC to model service for diverse populations.

- Increase cultural sensitivity.
- Optimize cultural resources.
- Share population-specific solutions.

“Serious problems with the quality of care and disparities in quality according to the race or ethnic group and socioeconomic status of patients have been documented in the U.S. health care system.” - Landon et al., 2007 p.922
5. Use a VCHC to share what is working elsewhere.

- Experiment with ACO models and implications of strategies.
- Improve and disseminate effective telementoring models like the ECHO model.
- Discover cost-saving measures.
- More effectively share technology.
- Test interventions using PDSA cycles.

Testing Interventions
“Improvement requires testing changes, for the purpose of learning and adapting them. In the jargon of the model for improvement, this is the plan–do–study–act (PDSA) cycle, running real world tests of change and learning from what happens. To join in improvement, the healthcare workforce must have the skills to run many PDSA tests, assess the results, and build on what they learn.” (Berwick, 2003, p.i5)
New learning affordances will make the experience “real”

- Patient Families
- Electronic EHR
- Longitudinal Setting
- Integrated Case Library
Simulations are low-risk labs for practicing high stakes skills.

Train students to collaborate well among inter-professional healthcare providers.

Simulate public health crises and protocols for handling major disasters.

Practice explaining care options to patient families in layman’s terms (literacy).
6. Use a VCHC to test models for community outreach.

- Increase community engagement
- Measure community impacts.
- Strategize ways to improve access in rural locations.
- Share new models of healthcare access such as nurse-community outreach teams.

“AOA and AAPA believe that physician-PA teams, working together with other team members, are ideally suited to the comprehensive, patient-centered, coordinated, accessible, and ongoing delivery of patient care found in team-based models, such as the patient-centered medical home.” (AOA-AAPA, July 2013)
7. Use a VCHC to teach principles of care optimization.

- Healthcare professionals such as pharmacists may need to work to the tops of their licenses to manage chronic illnesses.
- Define when it’s best for practitioners to work at top of their license, and when not.

A VCHC could be used to explore and solve interesting dilemmas such as: **Will primary care physicians lose continuity with patients if others (ex: pharmacists) treat chronic issues?**
8. Use a VCHC to expand opportunities for inter-professional education and services.

- Integrate oral and behavioral health.
- Teach the importance of oral care: dentistry is not a luxury.
- Identify common areas of practice relevant to dentists and non-dentists alike, such as screening, treatment, nutrition, etc.
- Role play simulations which practice getting patients to appropriate referrals, within a certain time frame.
- Organize collaborative cases between inter-professional teams.
Part 2:

Ideas for Designing a VCHC to Train Three Types of Trainees:

I. Health Professions Students

II. CHC Employees and Volunteers

III. Health Professions Residents
I. Training Health Professions Students

The Concept

• An inter-professional approach to health care training.
• A thematic wrapper which allows existing curricula to be contextualized and integrated within authentic community healthcare scenarios.
• Provides a low-risk laboratory for safe, simulated practice.

Knowledge, Skills, and Attitudes to Nurture Professional identity, social responsibility, referrals protocols, population medicine, clinical management, sophisticated clinical reasoning, social determinants, keeping the cost of care low, and interest in serving the underserved.
Proposed VCHC Features, Healthcare Trainees

- Virtual learning spaces
- Longitudinal, inter-related cases
- Virtual Patient Simulations
- Interactive EHR
- Educational games
- Patient population maps
- Authentic patient databases

Exercises practicing...
- Diagnosis and medical cognition
- Social capital
- Interprofessional collaboration
II. Training CHC Employees and Volunteers

Vision
To serve vulnerable populations, and increase the quality of care.

Overarching goals
Each member is recruited, trained and retained.
Provide the highest quality of care. Ensure the best outcomes.

Concept
An educational game with authentic scenarios. Bring in actual cases, which end with good and bad outcomes.

Health center staff will be able to...
- Describe roles and responsibilities of all team members.
- Improve the quality of care.
- Collaborate in a team-based construct.
Ways to use a VCHC for training employees

- Create a better pipeline for recruiting and replenishing employees.
- Increase satisfaction among employees.
- Orient others to the world of CHC’s.

“Let’s say that you develop a game, and the goal is to accumulate as many points as possible. Points are based on service accomplished, quality of care, and health outcomes, community impact, community engagement, and there is a dashboard.” – VCHC Launch Meeting, July 17, 2013
III. Training Residents

The Concept:
Through the VCHC program, residents will be exposed to the elements of public health leadership, and community health center management.

“Residents will have the opportunity to walk in someone else's shoes. Through collaborative team projects, residents will use authentic patient databases to solve real world problems. Student teams will be able to meet online to share innovations among peers and colleagues so that it isn’t necessary to re-create the wheel.”
Use the VCHC to support virtual seminars in community-based medicine for residents

Soaring costs of health care, patients living longer with chronic illnesses, and continued attrition of interest in primary care contribute to the urgency of developing an improved model of health care delivery. Out of this need, the concept of the team-based, patient-centered medical home (PCMH) has developed. Amidst implementation in academic settings, clinical teachers face complex challenges not previously encountered:…” (Clay et al., 2013).
## References

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