Let's Talk Informatics

Community Health Innovation:
Developing Informatics Strategies and Solutions in Primary Health Care

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Please be advised that we are currently in a controlled vendor environment for the One Person One Record project.

Please refrain from questions or discussion related to the One Person One Record project.

Informatics…

utilizes health information and health care technology to enable patients to receive best treatment and best outcome possible.

Clinical Informatics…

is the application of informatics and information technology to deliver health care.

AMIA. (2017, January 13). Retrieved from https://www.amia.org/applications-infomatics/clinical-informatics

Objectives

At the conclusion of this activity, participants will be able to…

- Identify what knowledge and skills health care providers will need to use information now and in the future.
- Prepare health care providers by introducing them to concepts and local experiences in Informatics.
- Acquire knowledge to remain current with new trends, terminology , studies, data and breaking news.
- Cooperate with a network of colleagues establishing connections and leaders that will provide assistance and advice for business issues, as well as for best-practice and knowledge sharing.

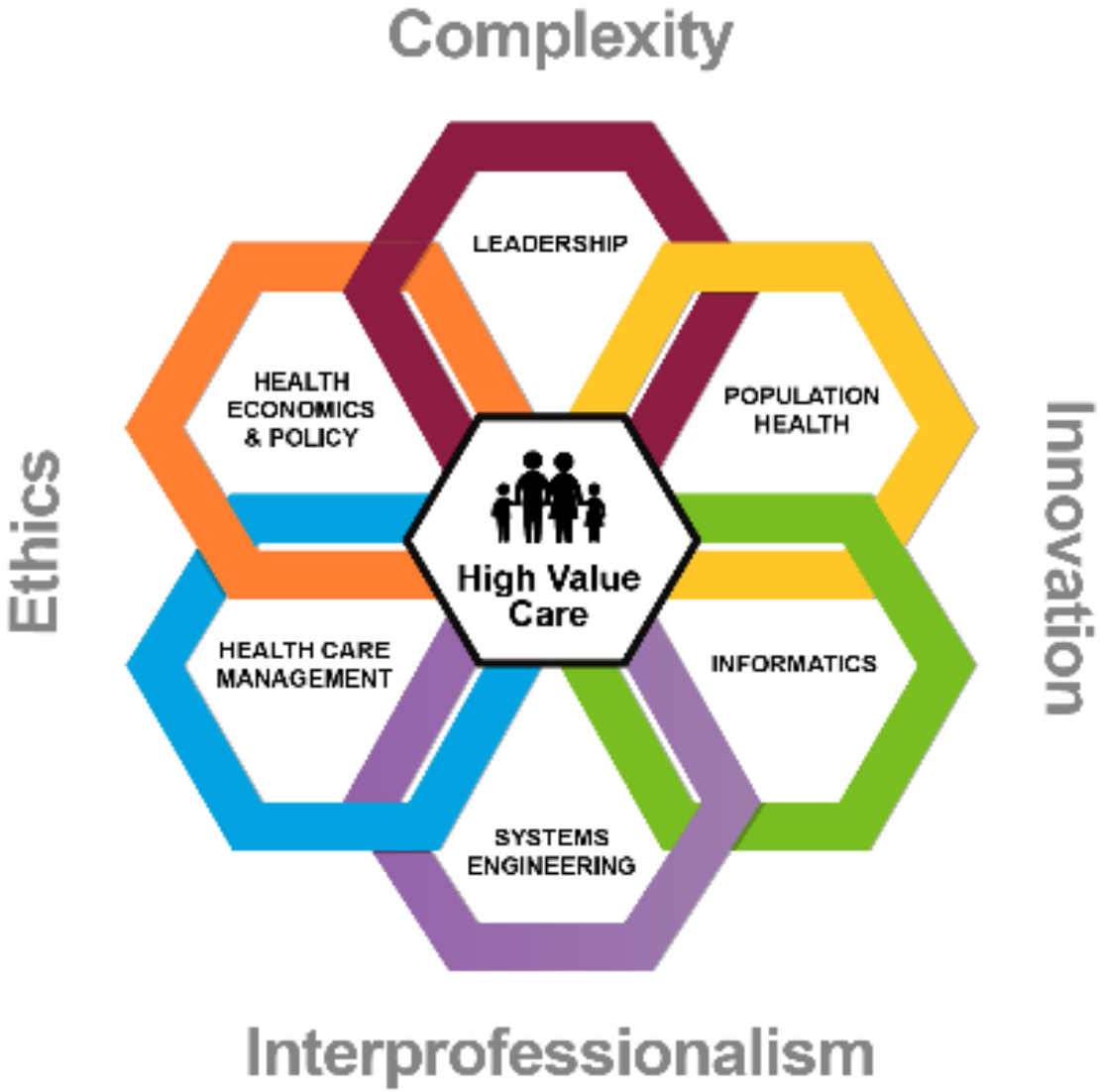
Learning objectives

- Review complexity of informatics in community-based care
- Learn about Primary Health Care innovations and strategies, using Community Health Teams as an example
- Reflect upon the informatics needs to support community-based care
- Share learnings and future considerations for the future

Conflict of Interest Declaration

We do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device, health care informatics organization, or other for-profit funder of this program.


Some BACKGROUND.


Complexity
LEADERSHIP
HEALTH ECONOMICS & POLICY
POPULATION HEALTH
High Value Care
HEALTH CARE MANAGEMENT
INFORMATICS
SYSTEMS ENGINEERING
Ethics
Innovation
Interprofessionalism

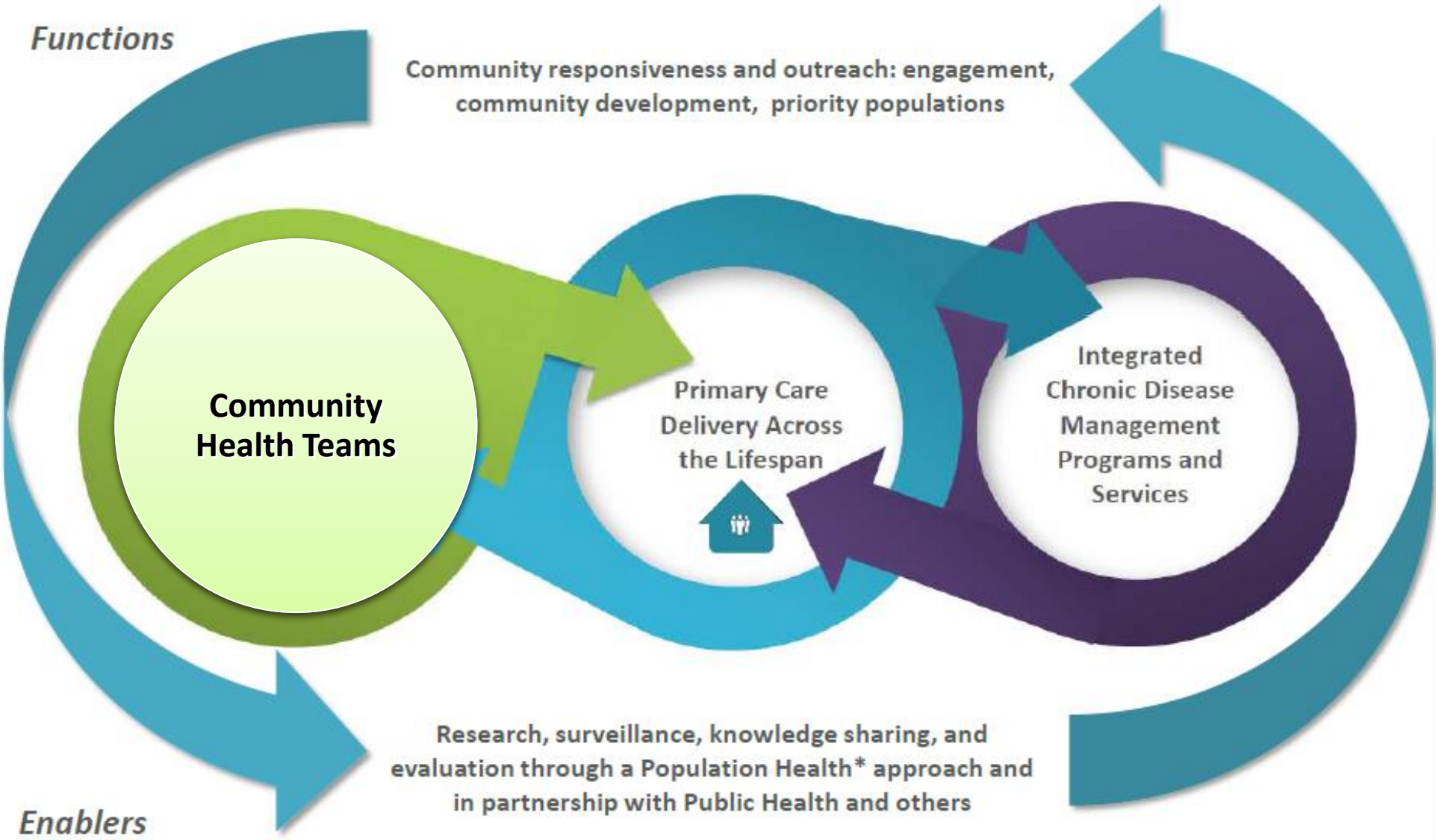
Primary Health Care

… is a **multidimensional system** that has a responsibility to organize care for individuals across the continuum of care (from pre-conception to palliative care) and understand and work with our partners to improve the health of communities.

Primary health care is the **foundation** of our health care system.

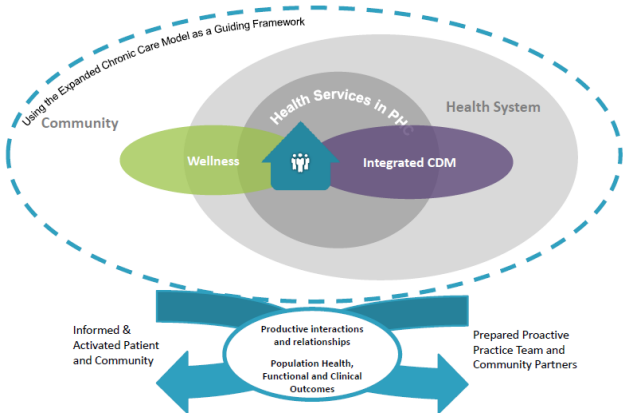
Primary Health Care AIM:

- Keep people healthy
- Prevent and/or delay Illness
- Support individuals to improve their management of chronic (complex) conditions
- Reduce unnecessary emergency room usage
- Reduce unnecessary hospital utilization



Functions and Enablers for the Nova Scotia Primary Health Care System

nova scotia health authority



What does it mean to focus on Wellness & Chronic Disease?

(Adapted from Barr et al., 2002; Wagner et al., 2001; IOM, 2012; Koh et al., 2013; Kaiser Permenante).

- Focus on **prevention** and **risk factor management** and **determinants** of health
- **Self-management** and **functional health** management supports
- Application of **clinical information systems**, **decision support**, and professional CDM **competencies**
- **Adult education** and **health literacy** principles
- **Care pathways** to promote an integrated **person and community centered** approach
- **Continuity** and **coordination** of relationships, and information – strong linkages with health home team, across the health system, and with community partners
- Commitment to continuous **quality improvement** & **safety**
- The degree of **integration** between wellness & chronic disease management will vary depending on the needs of the populations.

Social Determinants of Health & Population Health Lens

- Much of what keeps us healthy, is outside of the health system
- It takes a community to care for its residents
- Work with community organizations
- Engage people
- Enable a network of care

Benefits and Complexity of Care in Community

Rajakulendran et al. 2014


CHT Video

Community Health Team Model

Wellness and Risk Factor Management

- Managing risk factors
- Food, nutrition & weight management
- Physical activity
- Emotional wellness
- Parenting

Wellness Navigation

- Assist citizens to define & prioritize health needs
- Develop plans to meet needs & minimize barriers
- Link with health and community resources

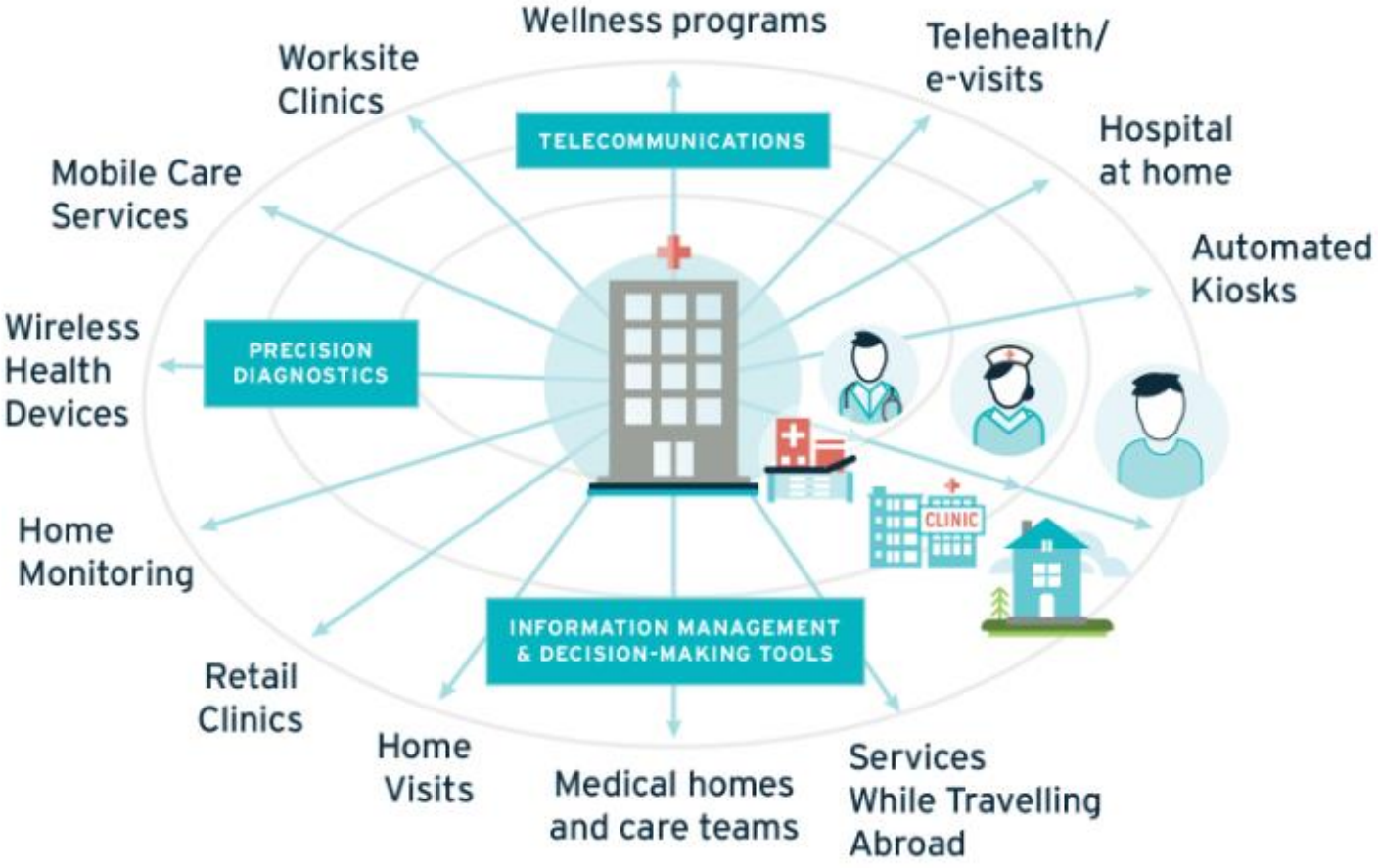
Community Connection

- Engagement
- Relationship building
- Community partners
- Linking community health providers and services

Interprofessional Team. Behaviour Change. Engagement. Community. Accessible.

Community Health Innovation:
Use of Data and Informatics

Community Health Model - Requires Innovative Informatics Solutions



Source: The Innovator's Prescription: A disruptive solution for health care 2008

- Communication tools and social networks
- Wearable technologies and sensors
- GIS mapping
- Social media analysis
- Personal health records (PHRs)
- Mobile health and medical apps

Available Data Sources/Indicators

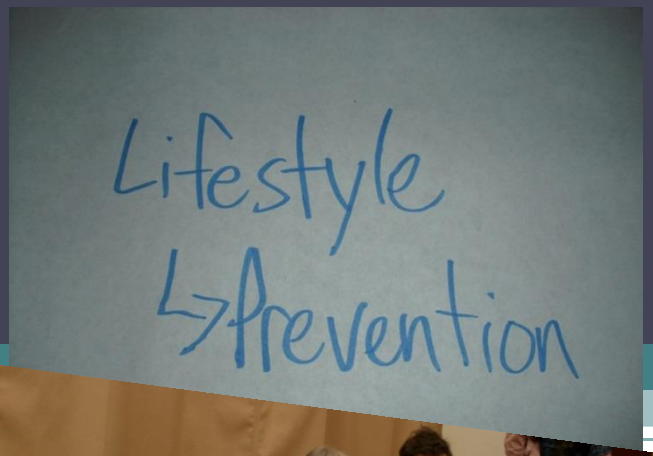
Making it Work for Community Health Informatics


What is
HEALTH?

Value of Various Forms of Evidence, Data, and Health Information

We Heard…We Listened

- Ongoing Engagement with over 2000 community members
- Shaped the team model & principles, team expansion, team composition/ competencies, team locations, programs offered…



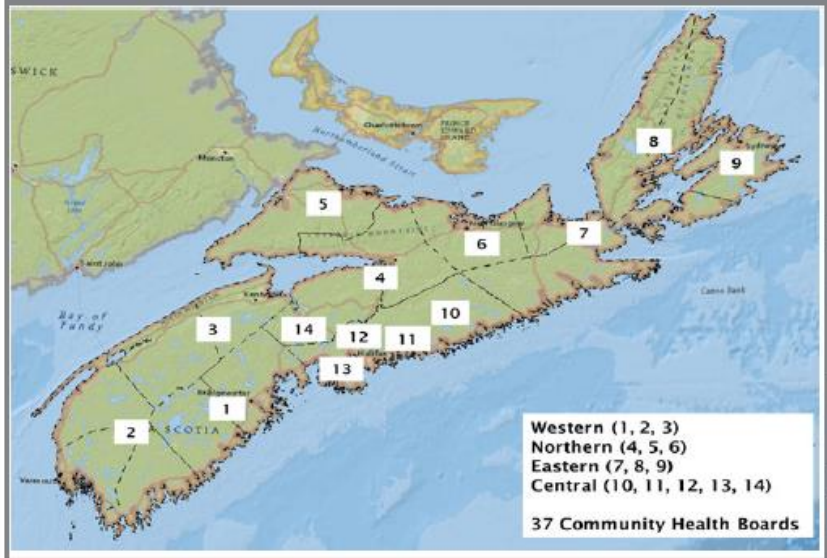
Review of Local Community Data

Health Services Planning Fact Sheets - Provincial Health Authority

101 indicators | 8 units of analysis~ | 507 data elements | 3 maps | 1 graph

~Canada, NS, Management Zones, Community Health Networks, Community Clusters, Communities, Former Health Regions, Facilities

Profile of the Nova Scotia Health Authority



The numbers on the map indicate the approximate geographic regions of the 14 Community Health Networks. The dashed lines on the map represent county boundaries. Updated versions of this document will include the geographic boundaries of the 14 Community Health Networks.

14 Community Health Networks across 4 Management Zones	
1. Lunenburg & Queens Counties	8. Inverness, Victoria, & Richmond Counties
2. Yarmouth, Shelburne, & Digby Counties	9. Cape Breton County
3. Annapolis & Kings Counties	10. Eastern Shore Musquodoboit
4. Colchester East Hants	11. Dartmouth / Southeastern
5. Cumberland County	12. Bedford / Sackville
6. Pictou County	13. Halifax Chebucto / Peninsula
7. Antigonish & Guysborough Counties	14. West Hants

Family physicians (2012*)	
Total	886
Full-time equivalents (FTEs)	777.8
FTEs per 100,000 population	84.5
Nurse practitioners (2015*)	
Total	57
FTEs	56.0
FTEs per 100,000 population	6.1
Selected facilities and services (2015*)	
Hospitals (Tertiary, Regional, Community)	40
EDs (Tertiary, Regional, Community)	38
Collaborative Emergency Centres	8
Chronic Pain Outpatient Clinics	11
Diabetes Education Centres	63
Cardiovascular Health Outpatient Clinics	27

Census Information, Canadian Community Health Survey, Priority Populations, CHB Engagement and Consultation Reports, etc

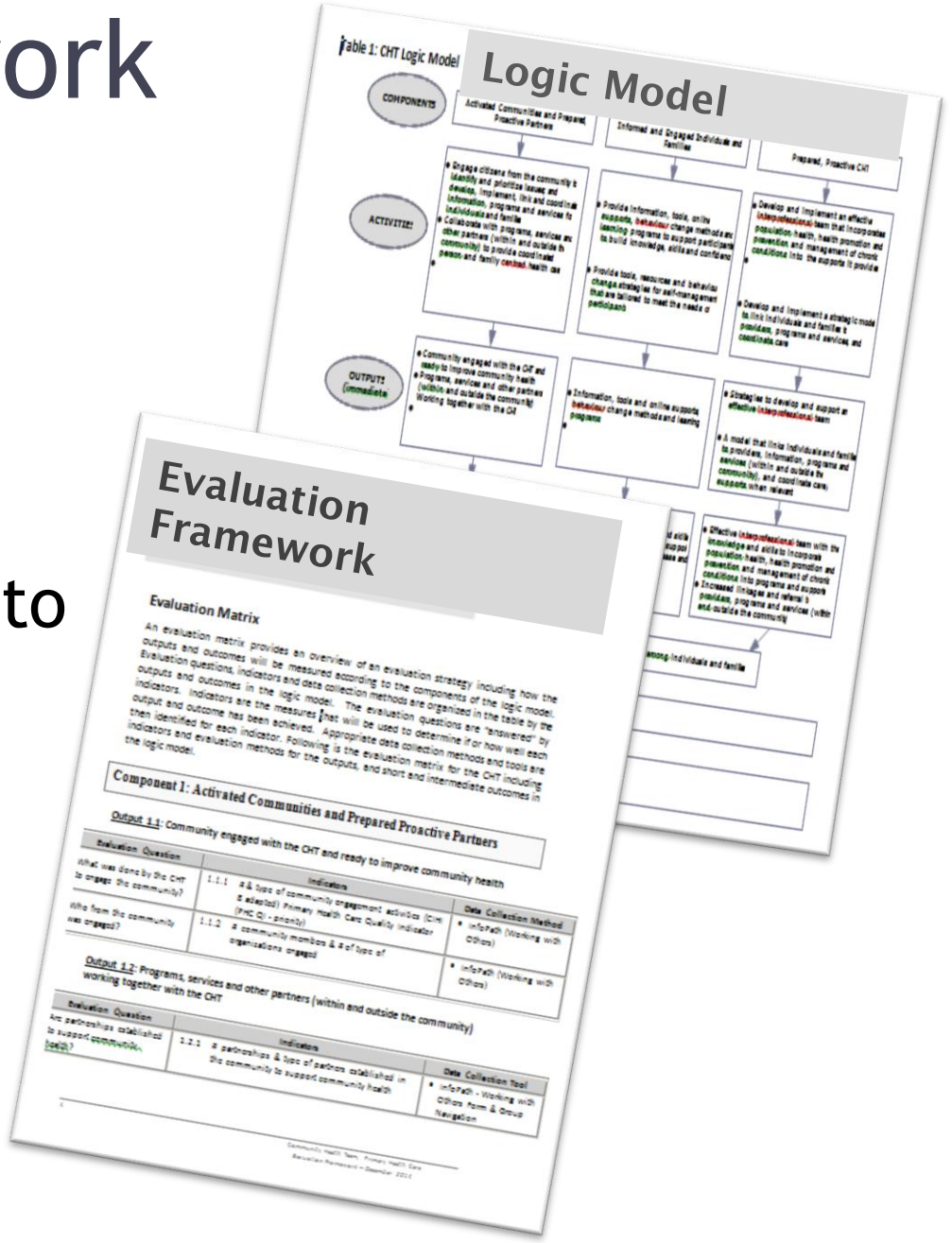
GIS – Understanding Communities and Needs

- Geographic Information Systems (GIS): spatial data management systems
- Plan for access and relev services; allocation of resources

Figure 5: CHN 1 Food Source Locations. Locations for the grocery stores/fast food sites provided by Dr. S. Kirk, Dalhousie University (2011); adapted from Population Health Status Report, Public Health, CDHA (2013)

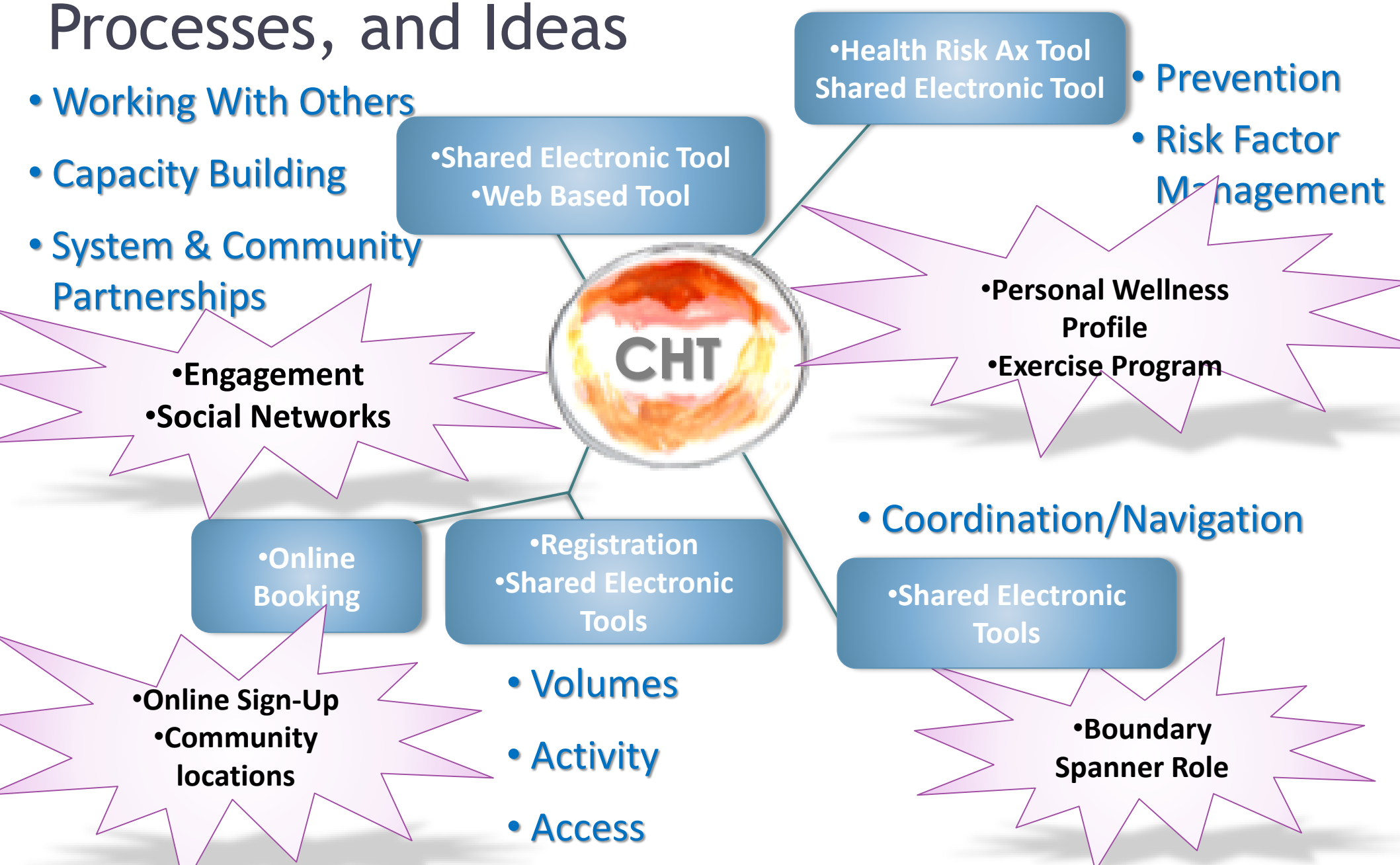
Evaluation Framework

- Improved wellness and management of chronic conditions
- Increased access
- Support individuals/families to build knowledge, skills, & confidence
- Improved coordination & navigation
- Work with community to support health & social determinants of health

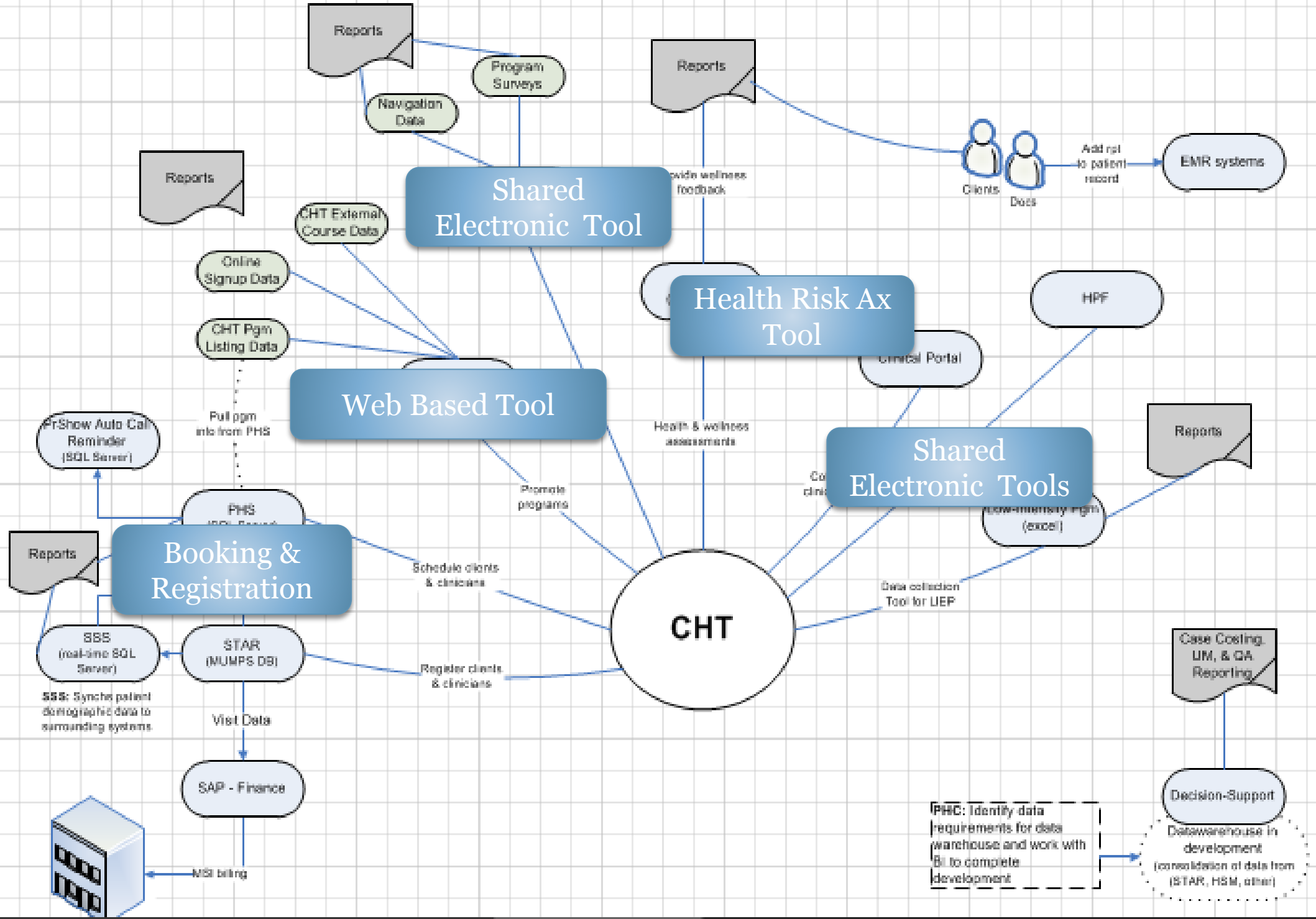


Innovation & Quality Care: Informatics, Processes, and Ideas

- Working With Others
- Capacity Building
- System & Community Partnerships



CHT Wellness Programming – Conceptual Overview



Shared Electronic Tools

- Conceptual ➔ Structured data fields (InfoPath)
- Multiple teams, communities, organizations
- Working With Others
  - Engagement, partnership, capacity building, community awareness
  - Who are we reaching? What is the purpose? What are the impacts?
- Navigation
  - Individual, system, community level
  - Understanding needs, barriers, and supports

Shared Electronic Tools

- Low Intensity Exercise Program
  - Tablet – Electronic documentation, communication ➔ Clinical record, Family Physicians, team members
  - Outcome measures, program efficiency, optimizes resources, communication tool
- Ongoing Program Evaluation
  - All programs continually reviewed and evaluated
  - Programs adapted based on needs, feedback, etc.

Web-Based Tools

- Online Booking Tool
  - Interface with enterprise systems
  - Supports enhanced access and community choice
- Community Partner Programming
  - Community and system partnerships to broaden the supports available
  - Supports enhanced access – services close to home and a comprehensive offerings

Health Risk Assessment Tool

- Tool: Well Source - screening tool for health risk factors based on objective and subjective information
- Produces individual personal wellness profile
  - Report for risk stratification, promote self-management/behaviour change
- Health outcomes (pre-post data), shifts in population risk factors

Personal Wellness Profile

Jane A Smith

Page 1

Overview Report

Your scores in the major areas of wellness are shown to the right. They range from 0 to 100. A score less than 50 needs improving; 50 or more is in the recommended range.

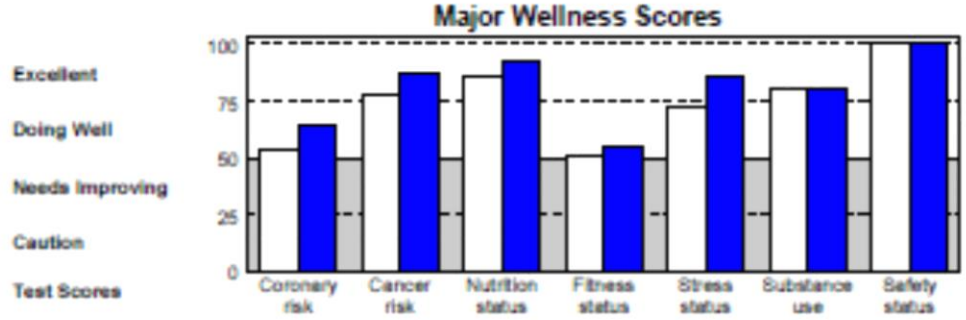
Overall Score

Your rating - Doing Well

Recommendations are based on guidelines from the National Health Organization.

Major Wellness Scores

Excellent	75-100
Doing Well	50-74
Needs Improving	25-49
Caution	0-24



Current	10/4/2012	64	87	93	55	86	80	100
Previous	3/29/2012	54	77	86	51	72	80	100

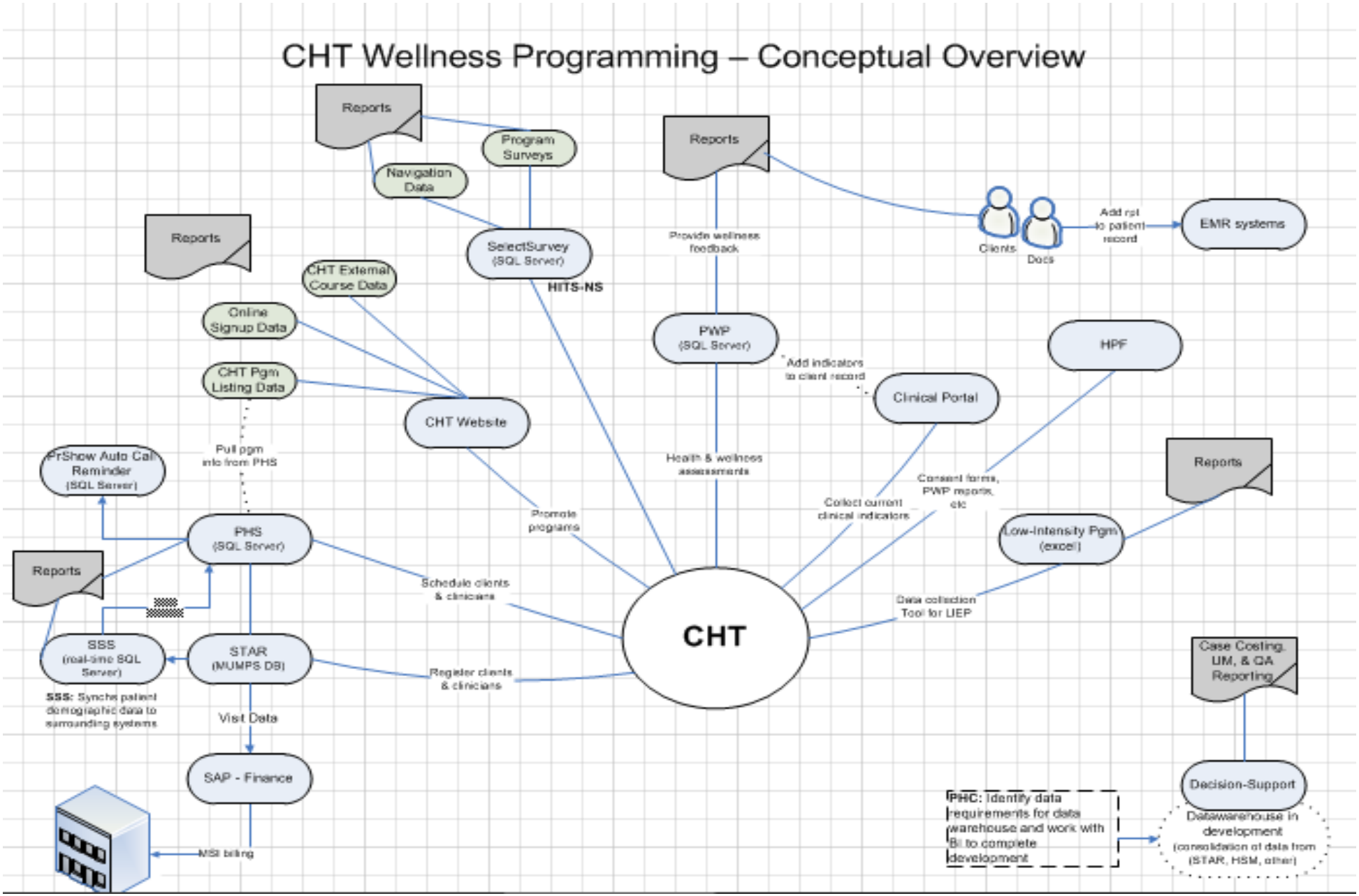
Recommended Preventive Actions

Give top priority to the key factors below to prevent serious health problems. Other recommendations follow throughout this report.

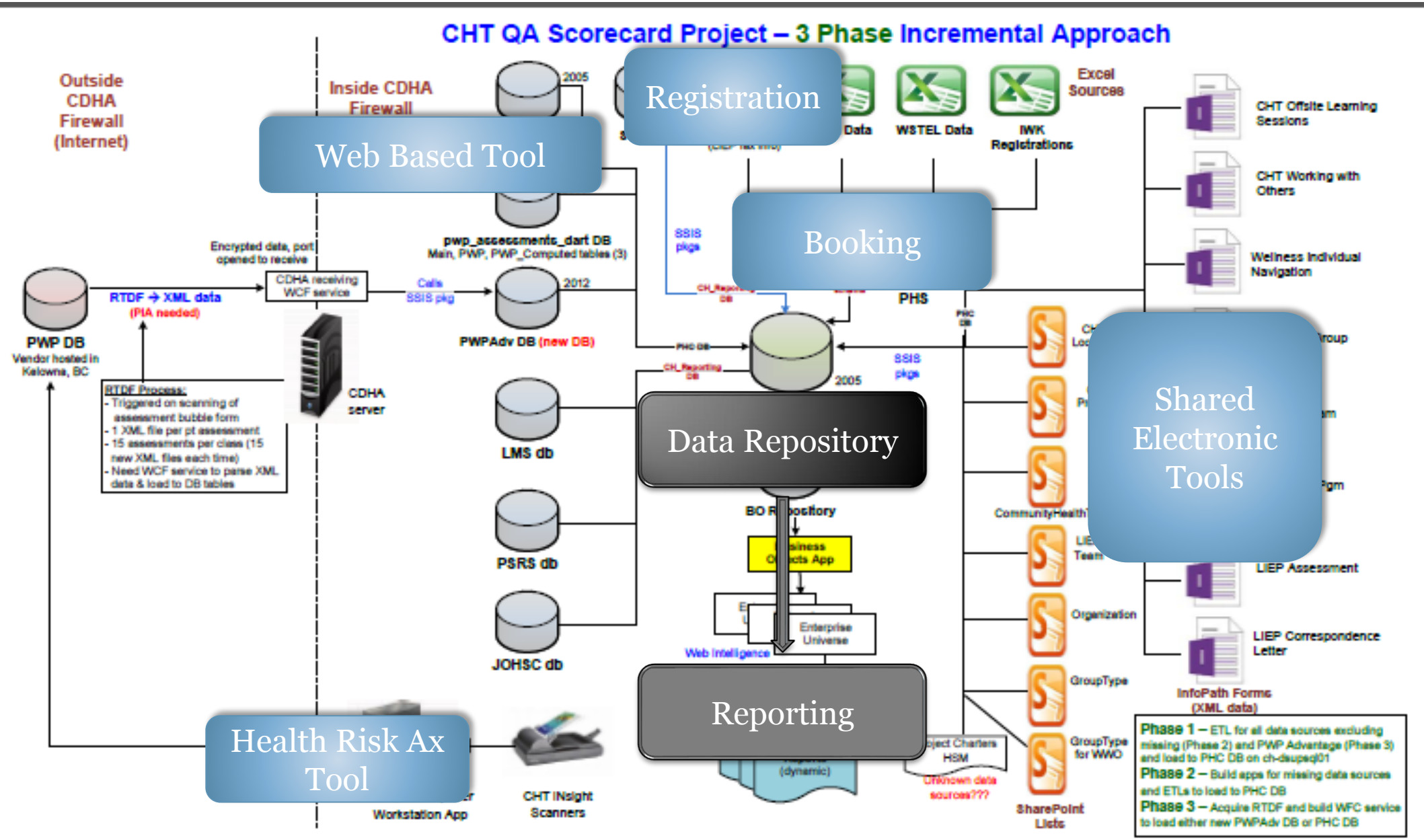
1 **Achieve a healthy weight** -See recommendations in other sections of report.

2 **Reduce cholesterol** - Making changes now may prevent a heart attack or stroke.

Bringing it all together…



Bringing it all together…CHT Dashboard

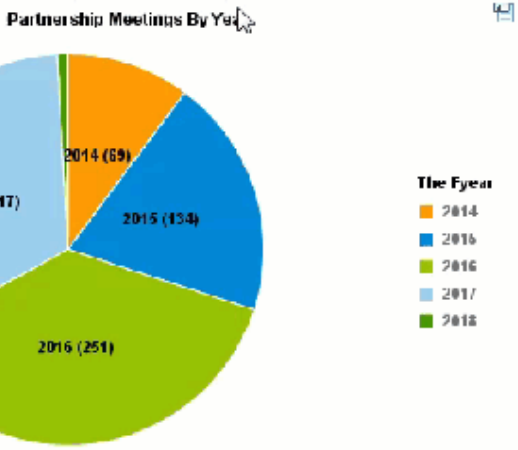


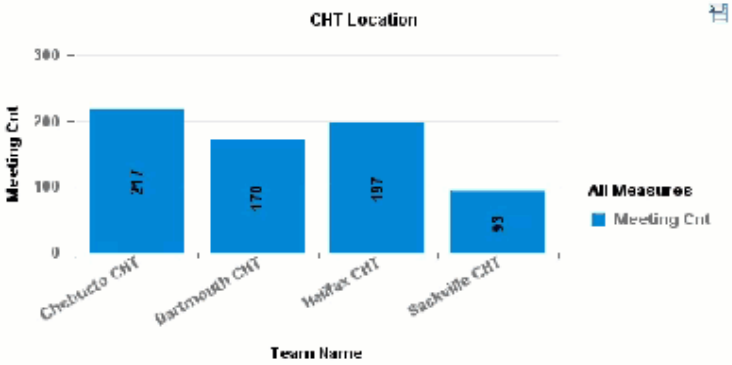
CHT Dashboard

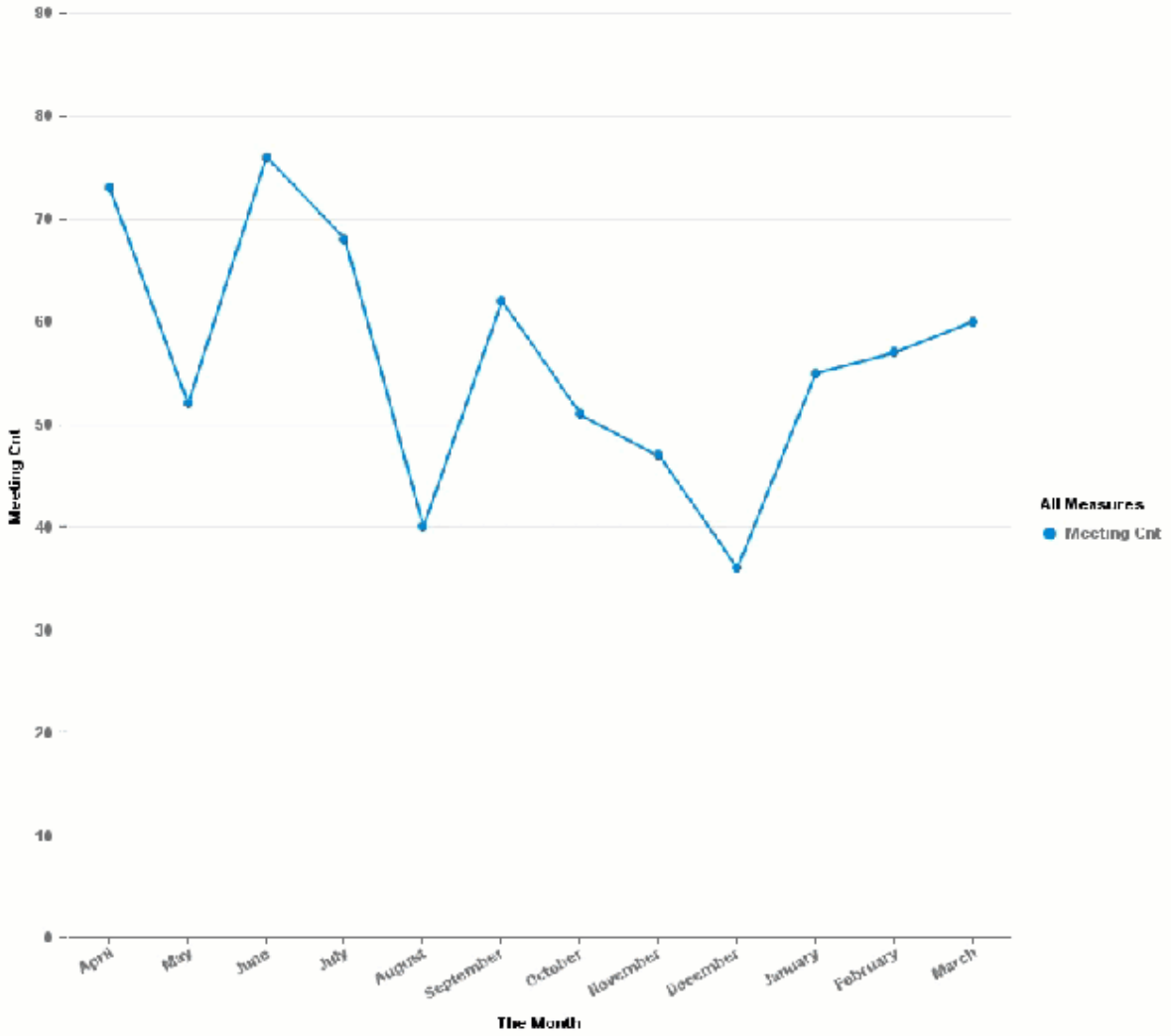
- Tool: Business Objects
  - Aligned with model, evaluation framework, Accreditation Canada Quality Dimensions
- Pulls all data sources together
  - Identify trends
  - Decisional support
  - Program development and informed change
  - Inform quality improvement

1.2.3 (a) Total Count of Partnership Sessions and Types of Partners: Working With Others

Group Type	Meeting Cnt
CDHA	107
Citizen	24
Community Group	381
FP / Family Practice Nurse & Team Mbrs	17
IWK	52
Municipal Government	61
Other	83
Private Health Care Provider	25
Provincial & Federal Government	65
Sum:	812







Impact – Community Members

- Report enhanced personal responsibility for health
- Development of new and stronger support networks
- Increased awareness of chronic conditions and self-management
- Increased awareness of and access to available resources in health care and the community

"The medical system, it's like looking at a map from another city and trying to get from here to there. But when you come here they are a "system GPS". I feel like I have an ace in my pocket now with the [Wellness Navigator]."

"I would say life changing for me."

"They make you aware of your responsibility for your own health and your own wellness. I think we tend to look either to the medical profession to solve your problems. And here, you have to face your issue, but in a very supportive, not judgmental way. [The Community Health Team] has given me so much, I'm learning so much about my own limitations and my own possibilities."

Impacts - Partners

- Unique and flexible approach
- Community focused
- Accessible programs
- Value placed on wellness navigation
- Model meets needs of hard to reach group

"They provide programming that is tailored to the community, which I think has not happened in the past. They actively engage the community to understand what is important to the people of the community."

"We have a very large transient community, and there are significant numbers of people living in poverty in this area. So the high quality programming that's free, locally offered, and community focused I think that's a real accomplishment."

"One of the things that stands out for me is the community presence and the integration of the programming within the community. It's not just something that's been parachuted in for a very brief period of time... programming is being integrated within the community."

REFLECTIONS WELLNESS

Innovations and Informatics Solutions: Community Health Teams

- Complexity → Creative solutions
  - Within available resources
  - Continual change
- Importance to identify
  - What is the aim and keep that in sight
  - Outcomes
  - Effective processes at individual and community level
  - … as well as tell the story
- Hard work
  - Ongoing (population level data; prevention)
- Identify solutions over the long term – align with directions of IT/IM/OPOR

Thank you!

Questions / Comments

The ***Let's Talk Informatics*** series meet the criteria outlined in the Mainpro+ Certification guide for 1 credit by providing content aimed at improving computer skills as applied to learning and access to information.

A certificate of attendance will be sent to you to personalize, along with the link for the evaluation.

Thank you for attending today's event.