Community-wide Clinical Information Infrastructure in Whatcom County, WA

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PeaceHealth

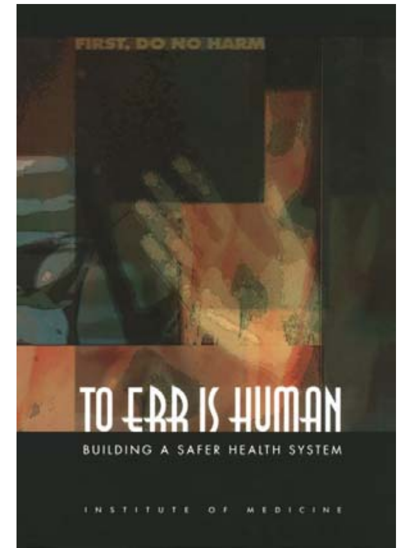
It Takes a Community

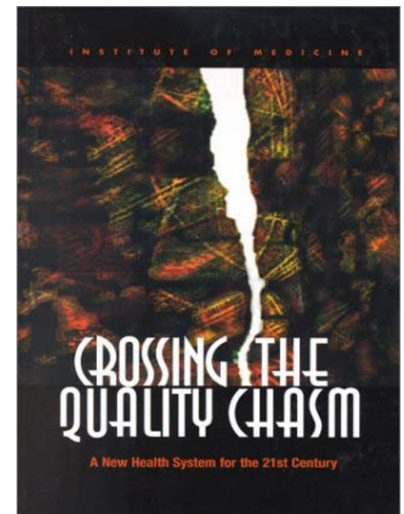
Pursuing Perfection Core Team

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." - **Margaret Mead**

Whatcom County, WA

- NW Washington
- 170,000 people
- Community vision, 1990--present
  - Seamless care for patients
  - Goal—county with best care WA by 2000
- IOM
  - Computerized Patient Medical Record
- "Community Health Record" 1993--present
  - To support quality for patients
  - "Right info, right place, right time"





Whatcom County, WA

- A story of collaboration among hospital, payer, and physicians
- Pop. 170,000; one hospital
- Vision of seamless care and measurable outcomes since 1990
- Quality focus, IT to support quality for patients
- “Right info, right place, right time”

IT Over the Last 10 Years

- Community-wide healthcare intranet
  - LLC, self-sustaining
  - Hospital, SNFs, ancillary providers, payers
  - 1300 physician owned PCs
  - 1600 independent, non-hospital users
  - Access to WWW and key online medical resources
- Hosp. EMR distributed throughout comm.
  - Nearly paperless
  - Available in all physician offices and many homes
  - 90+% outpatient labs in this EMR
  - 100% imaging results for community in EMR
- Chronic disease management tools integrated and available across community
  - Registries, analytical databases, secure reporting
- HIPAA compliance
- Patient’s Shared Care Plan
- Growing number of provider office EMRs
- Enterprise Master Patient Index for community systems

Community Focus- A Rational Approach

- Permits an asset based approach to the future

- Provides purchasers opportunity on payment innovations
  - Self insured
  - School districts
  - City of Bellingham
  - St. Joseph Hospital/PH

- Builds a coalition of coalitions
  - Whatcom Alliance for Healthcare Access
  - Whatcom Coalition for Healthy Communities
  - Whatcom Community Healthcare Improvement Consortium
  - Whatcom Healthcare Information Network

Whatcom Background
(Intent & Experience Cooperating)

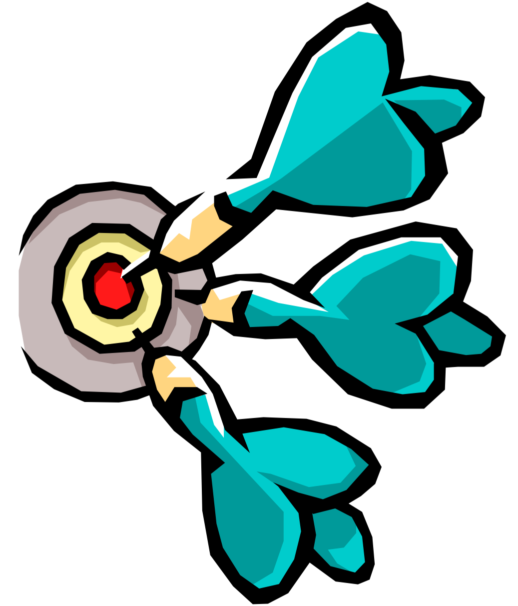
- Integrated delivery system mid 90s
- Community Health Record & Health Information Network
- Community Health Improvement Consortium
- Disease registries at community level
- Pursuing Perfection--RWJF participant
- AHRQ patient safety participant
- E-health Initiative participant

Vales, Purpose, Strategies

- Values made explicit
  - Patients, outcomes, decision support
- Long term focus
  - Community, patients, seamless care
- Community focus
  - Inclusiveness, citizen focused, all providers
- Developed by key stakeholders
- Ownership and governance
  - Defines the limits of participation
  - Need a “Swiss model” with political neutrality

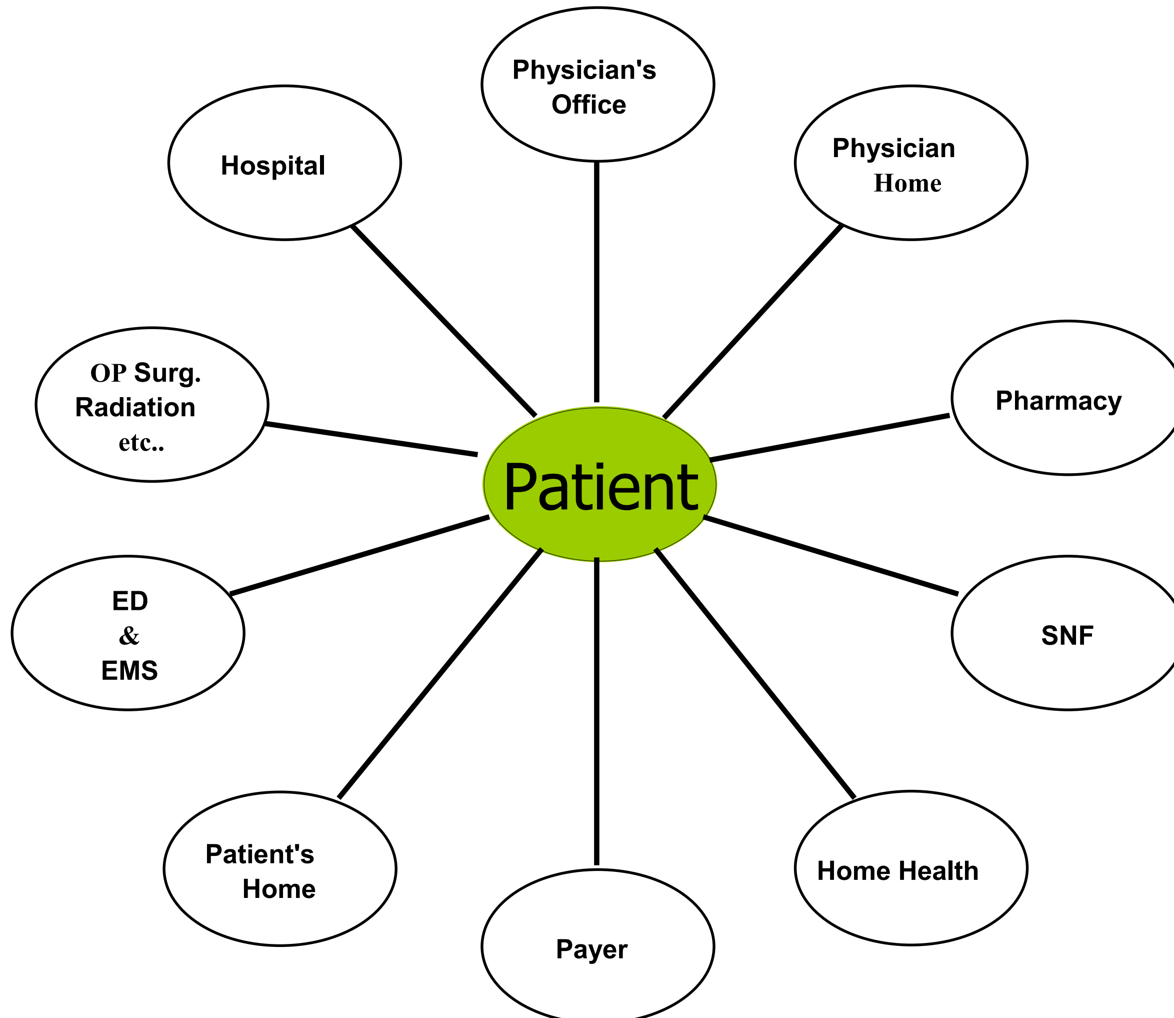
“Relationships are the currency of healthcare.”

PURPOSE



- EVERYONE has the
- INFORMATION they need
- WHEN and
- WHERE they need it.
- PATIENTS are at the center.

PATIENTS AT THE CENTER



Current State of Connected IT

- Private self sustaining Health Information Intranet serving community
  - 170 K citizens (450 with Shared Care Plan)
  - 1 hospital
  - 300 physicians (99%)
  - 8 of 9 Skilled nursing facilities
  - 90 locations
  - Over 1700 pcs
  - 1800 network users
    - Plus a similar number in the hospital

Current State of IT

- Hospital on line with robust installation of IDX LastWord EMR
  - Accessible to all physicians, office and home
  - Accessible to all staff--with need to know appropriate to job
- Labs and images online
- Several specialty practices importing notes
  - Vascular, GI, Cardiac Echo, Nephrology, Surgery Centers, Senior Center, RT group, Path, Registries, 1 OB, others considering
- e-mail - internet access – antivirus protection
- helpdesk phone and onsite service
- LAN consulting and implementation

Current State of IT, cont.

- Medical reference resources on line
  - Up To Date
  - Micromedex
  - MD Consult
  - Medical Journals, databases, etc in electronic library
- 40 doc family practice implementing Logician EMR
- 50 doc multi-specialty group implementing Better Health Record EMR
- 450 Shared Care Plans in use, rollout to broader community planned for late this fall
- Pilot e-prescribing project beginning
- PSI integrated display of Patient Safety Data from disparate systems in contracting phase

Chronic Disease Registries and Decision Support Infrastructure

- Community Health Record as front end
  - IDX LastWord (CareCast)
- Analytical databases as back end
- Web query & presentation layer
- Conditions
  - Diabetes
  - Asthma
  - Anticoagulation
  - Congestive heartfailure

Medical Knowledge Resources

- MDConsult
- UpToDate
- Micromedex

Most Important Learnings

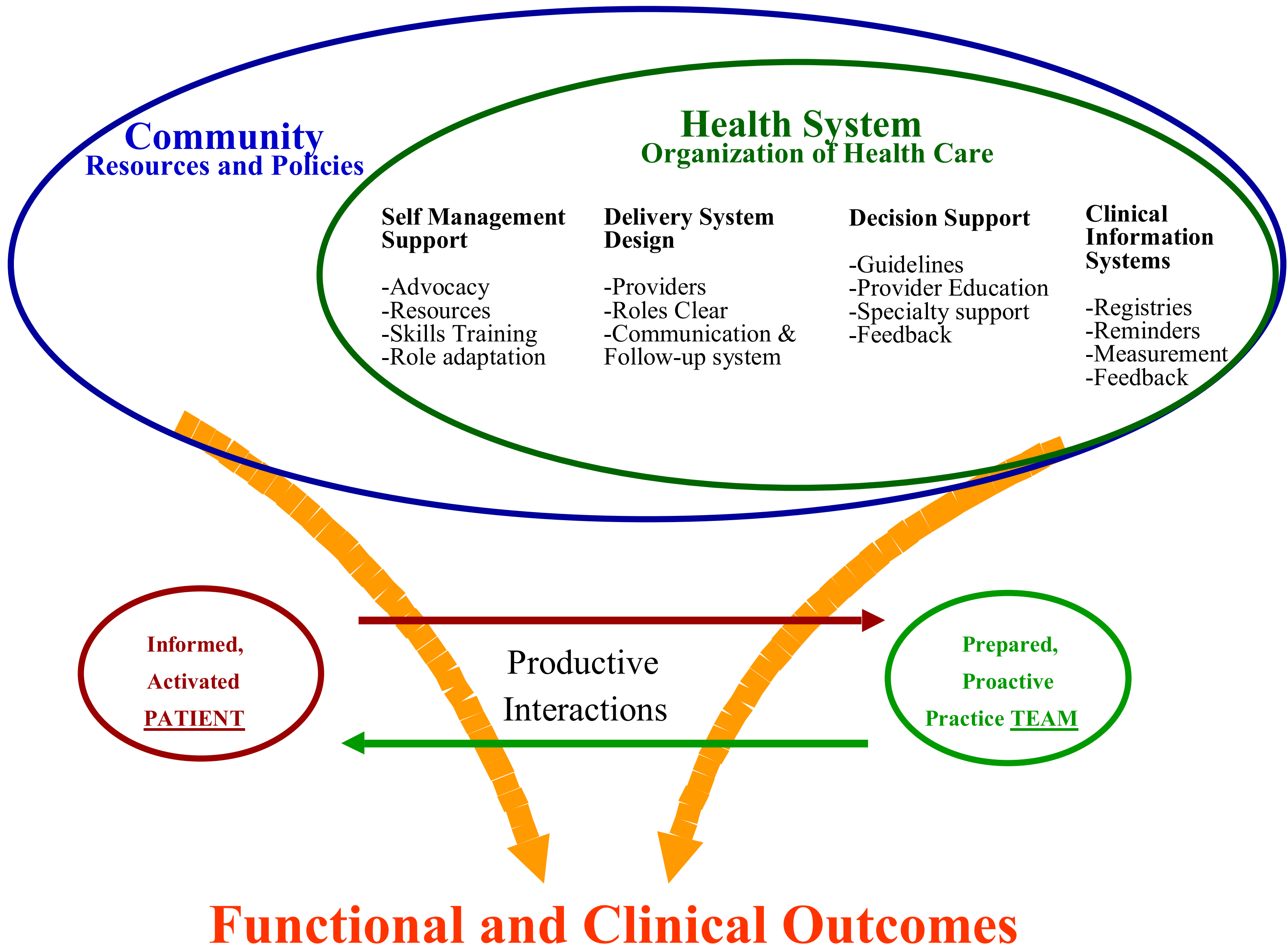
- The technology is easy
- Constancy of shared purpose is THE KEY
- The challenge is in relationships, timing, and support for the process change necessary to implement the technology
- Neutrality is also key
- Involve the patients--directly

EMRs

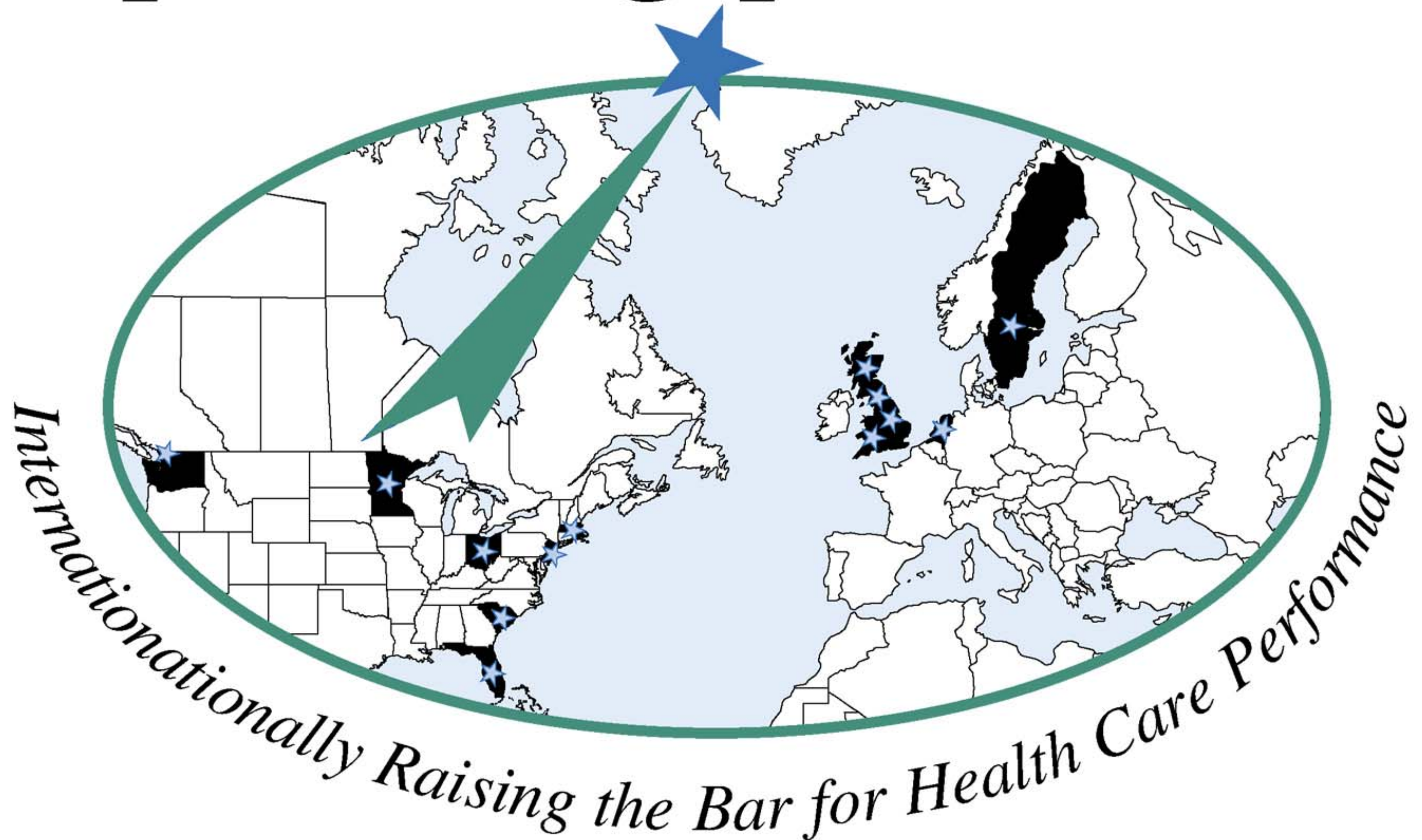
- Community Health Record (CHR)
  - PeaceHealth
  - IDX LastWord (CareCast)
  - >90% all labs in county
  - >95% all image results, and now images
  - All hosp, ED/Amb Care/Hosp clinic data
  - Specialists reports
  - Nephrologists
- GE's Logician
  - One FM group
- Better Health Record
  - One multi-specialty practice
- Shared Care Plan
  - A patient designed patient owned health record

Focus on Chronic Illnesses

- Most of the disability and cost are here
- This the costs will sink healthcare, communities, and the economy if not addressed
- Just encouraging EMRs will not help this much.
- There is no system for chronic care except in a few HMOs. Need a new way of working, and complex information systems are required
  - Must intend to work across organizational lines
- Must include the patient and their family and friends



Overview of the Chronic Care Model
Robert Wood Johnson Foundation/Sandy MacColl Institute
Community
Resources and Policies
Health System
Organization of Health Care
Self Management Support
-Advocacy
-Resources
-Skills Training
-Role adaptation
Delivery System Design
-Providers
-Roles Clear
-Communication & Follow-up system
Decision Support
-Guidelines
-Provider Education
-Specialty support
-Feedback
Clinical Information Systems
-Registries
-Reminders
-Measurement
-Feedback
Informed, Activated PATIENT
Productive Interactions
Prepared, Proactive Practice TEAM
Functional and Clinical Outcomes



Learning with others at the edge of knowledge.

What is Pursuing Perfection [P2] ?

We are building a ***patient-centered*** **community wide** chronic care management **system** in Whatcom County

(I try to separate acute and chronic care as systems—however, they do use many of the same resources.)

P2 as a Community Resource

- Represents the community locally, at the state level, nationally and internationally
- Draws the community together—patients, providers, payers, purchasers, government
- Provides Self-Management Resources:
  - *PatientPowered.Org* -Shared Care Plan - Clinical Care Specialist
- Provides Clinic Change Resources:
  - Organizational development for team building - Process design expertise -Data Analysis - Outcomes Measurement
- Provides Administration, Coordination and Facilitation
  - Community approach to information technology
  - Forum for CEOs to create unique partnerships

How Are We Doing This?

We are supporting each patient and their virtual care team with:

- A secured electronic shared care plan
- A shared, single, accurate medication list
- Access to clinical information at all times
- Idealized design of clinical office practice (IDCOP), including group visits and telephone/ e-mail visits and alignment of hospital to support this system and patient self-management
- Evidence-based guidelines
- A clinical care specialist when needed

We will promote cost-effective screening, preventive education, and risk management

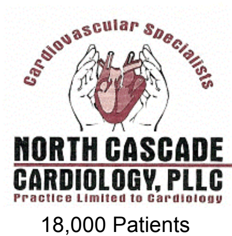
Together and across our diverse community we are building safety, timeliness, effectiveness, efficiency, and equality into our health care system.

15,000 Patients

28,000 Patients

365 Providers

80,000 Patients



18,000 Patients

52,268 Patients

13,000 Patients/YR

PATIENTS

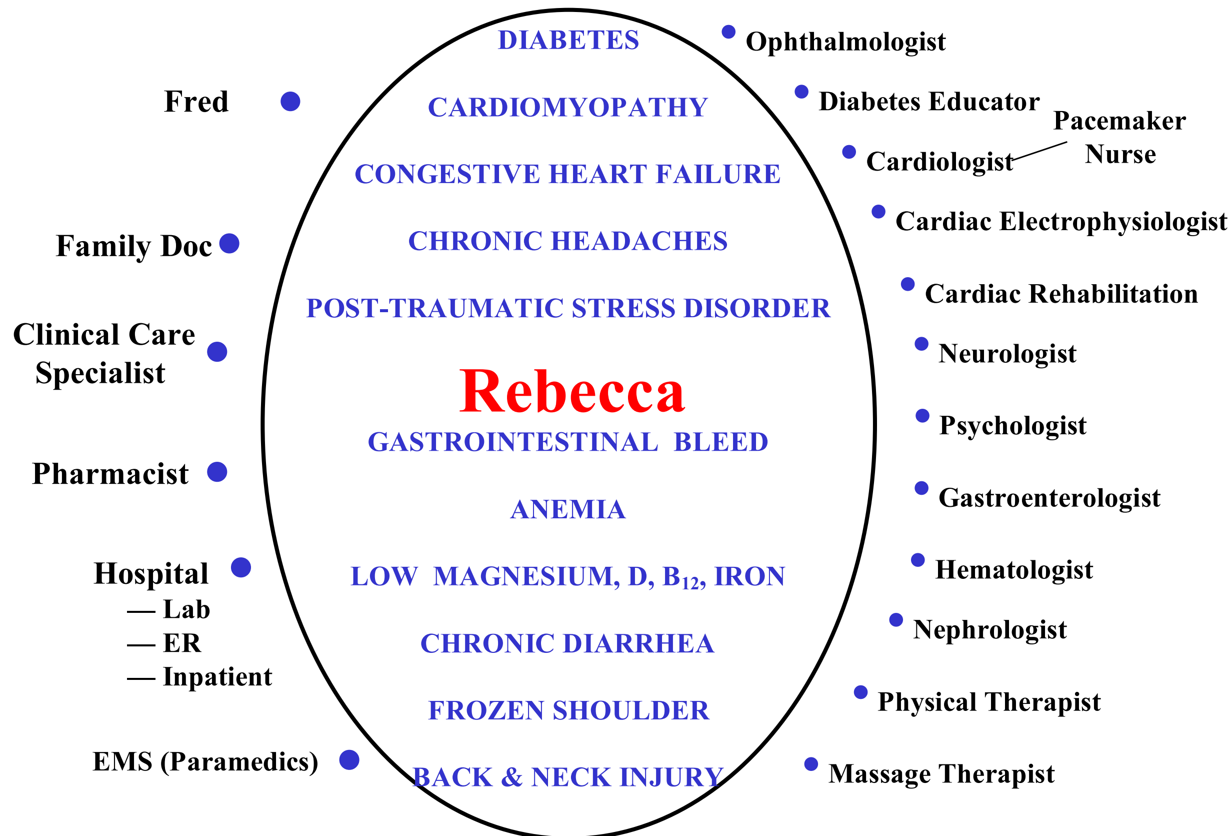
- Safe Medication Handoffs
- Immunizations
- Build Competency & Capacity
- FLOW & Build Tech. Infrastructure
- Payment Realignment/ Sys Modeling
- Build Cooperation
- Build Evidence-based Clinical Agreements
- DM
- CHF

Involving Patients in the Process

Inviting Patients As Partners

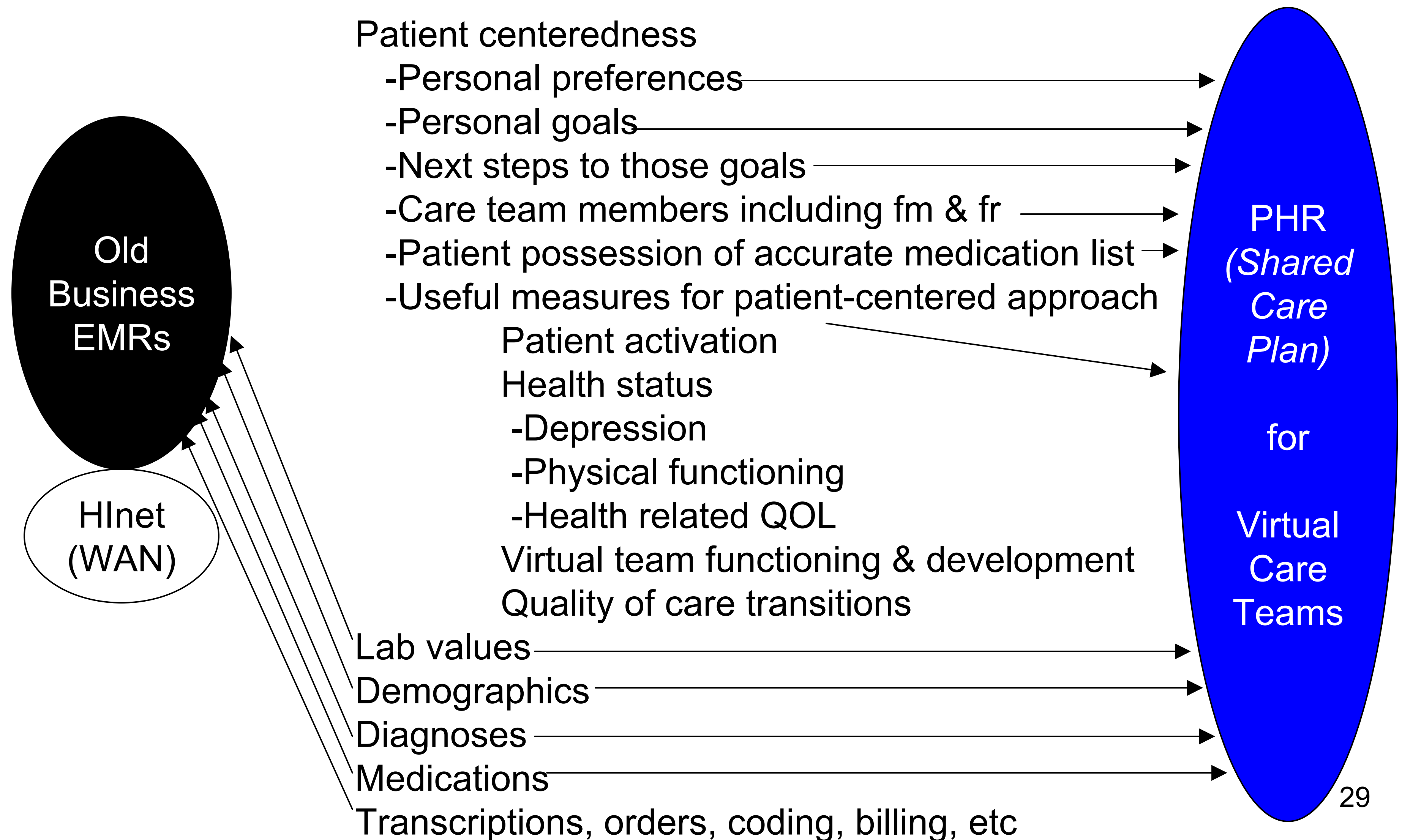
- On all teams: as designers, on governance
  As Motivators
- Re-establishes meaning in health care
- Provides hope and dampens cynicism/skepticism
- Perhaps the <u>most important learning</u>
- Their compassion for us will *heal* us.

Virtual Care Teams



- Patients with multiple conditions are often left at the center by default
- Resources surrounding and supporting are necessary

Information for a Care System



Patient Health Record

- "Shared Care Plan" (http://www.patientpowered.org)
  - Supported by RWJF
- Patient designed for self management and communication
- Invite providers, family, friends
- Includes
  - Patient preferences, goals, plans, actions
  - Medications (linking to EMRs supported by AHRQ)
  - Diagnoses
  - Linked to Healthwise
  - Medical history (in Oct., '04)
  - Future--Test results?
- We are committed to standards for interoperability
  - Continuity of Care Record as future standard?
- 450 users in Whatcom
  - Available to entire county this winter. State?

The Surprising Shared Care Plan

- A Patient Self-Management Tool
- Facilitates information flow across org. boundaries and care team members
- Has generated intense positive interest
- Improved safety and accuracy between patient/healthcare team
- Improvised through iterative use/feedback

- Like a developing blue-print between the owner and architect and builders
  - More Discussion
  - More Design
  - More Learning
  - More Expertise
  - More Involvement of family members
  - Much more than a record, a symbol and artifact for cooperation and shared responsibility

Prescription Medications

Add New

Start Date	RX By	Generic (Brand) Name	Directions	Use	B	L	D	N	Function
	EB	ATENOLOL 25MG TAB PO (ATENOLOL 25MG TABLET)	Take 1 tablet(s) by mouth twice a day	Beta Blocker	1		1		Edit
	EB	BuPROPion SR 150MG TAB PO (WELLBUTRIN SR 150MG TAB SA)	Take 1 tablet(s) by mouth twice a day	Antidepressant; helps stop smoking	1		1		Edit
	EB	METFORMIN HCL 500MG TAB PO (GLUCOPHAGE 500MG TABLET)	Take 2 tablet(s) by mouth daily in the morning	Diabetes	2				Edit
	EB	METFORMIN HCL 500MG TAB PO (GLUCOPHAGE 500MG TABLET)	Take 3 tablet(s) by mouth once daily	Diabetes			3		Edit
Comments: Take 3 in the evening									
	EB	INSULIN GLARGINE,HUM.REC.ANLOG 100U/ML (LANTUS 100U/ML VIAL)	10 unit(s)	Diabetes				10 U	Edit
Comments: Take 10 Units at 8 PM									
	EB	SIMVASTATIN 20MG TAB PO (ZOCOR 20MG TABLET)	Take 1 tablet(s) by mouth daily at bedtime	to decrease cholesterol and fats in blood				1	Edit
8/27/02	EB	LISINOPRIL 10MG TAB PO (FS-LISINOPRIL 10MG TABLET)	Take 1 tablet(s) by mouth once daily	ACE Inhibitor	1				Edit

Over-The-Counter Medications

Add New

Brand Name	Generic Name	Directions	Times Taken	Why Taken	Comments	Function
	Aspirin 81mg	Take 1 per day				Edit
	Vitamin C 500mg	Take 1 per day				Edit
	Vitamin E 400 IU	Take 1 per day				Edit
	Vitamin A					Edit
	Calcium 500mg	Take 1 three times a day				Edit
	Niacin 250mg	Take 2 per day				Edit

Discontinued Medications

Start Date	RX By	Generic (Brand) Name	Directions	Use	Status	Function
No prescription medication records to show.						

Virtual Care Teams- A New Frontier

- Geography no longer need dictate that the physician be the center
- Role clarity (dynamic) and role training will be key for high functioning team
- Chronic care is different from acute care episodes (where the system supports the experts at the center)
- Essential role of the ombudsman, navigator, negotiator (CCS or others)
- Technology becomes an enabler [eSCP, phone, email]
- Out of the box, not mainstream, a possible solution of the coming demographic bulge
  - Action research needed & in planning stage
  - Payment will likely only follow proven value in this approach

Community and Relationships- We each know it

- In some deep sense none of this is news, we all know it somewhere. The opportunity is to bring more of ourselves to the work.
- To take the risk of being fully human in the workplace. Spirituality, loving, risking, embarrassment, failing in full view-- everything that being a member entails.
- How large do we want our "WE"? Can it be our community?

Next Scope of Work

- Begin to align payment (starting with hospital employees then self insured groups)
- Advanced access (IDCOP)
  - Creates capacity for collaborating and for improving other processes
- Get three EMRs and SCP all connected
  - PSI etc.
- Expand “case management” clinical care specialists to include pharmacists
- Community-wide prevention and screening
- E-prescribing for the whole community, connected to Shared Care Plan
- Systems mapping and strategy mapping
- Measurement and feedback for learning
  - “Research” at delivery system level—what works, how and why

Summary Slide

- Next Scope of Work

Next Scope of Work

- Get three EMRs connected with PSI
  - Interfaces, etc.
  - PSI = Patient Safety Institute
- E-prescribing for the whole community
- Embed evidence based medicine into the work flow and into the EMRs
  - (With physician order entry)
- Enhance real time decision support
  - (With physician order entry)

Implementation Hopes

- 3 medical records and 1 patient health record connected
- 100% of physicians prescribing electronically within three years
- All individuals in Whatcom County who want a Shared Care Plan have one
- Quality reporting available across community

Four Suggestions

- Support standards for EMR interoperability
- Consider using existing community organizations to support community-wide IT infrastructure
  - Public Health Departments
  - County Government
  - Community Health Clinics
- Make connected medical records possible by supporting non-profits organizations that interface EMRs
- Support a version of the Shared Care Plan as a nationally available patient health record

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