



# Improving Public Health by Enhancing the Patient Centered Interprofessional Primary Care Team

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# How does health in the US compare?

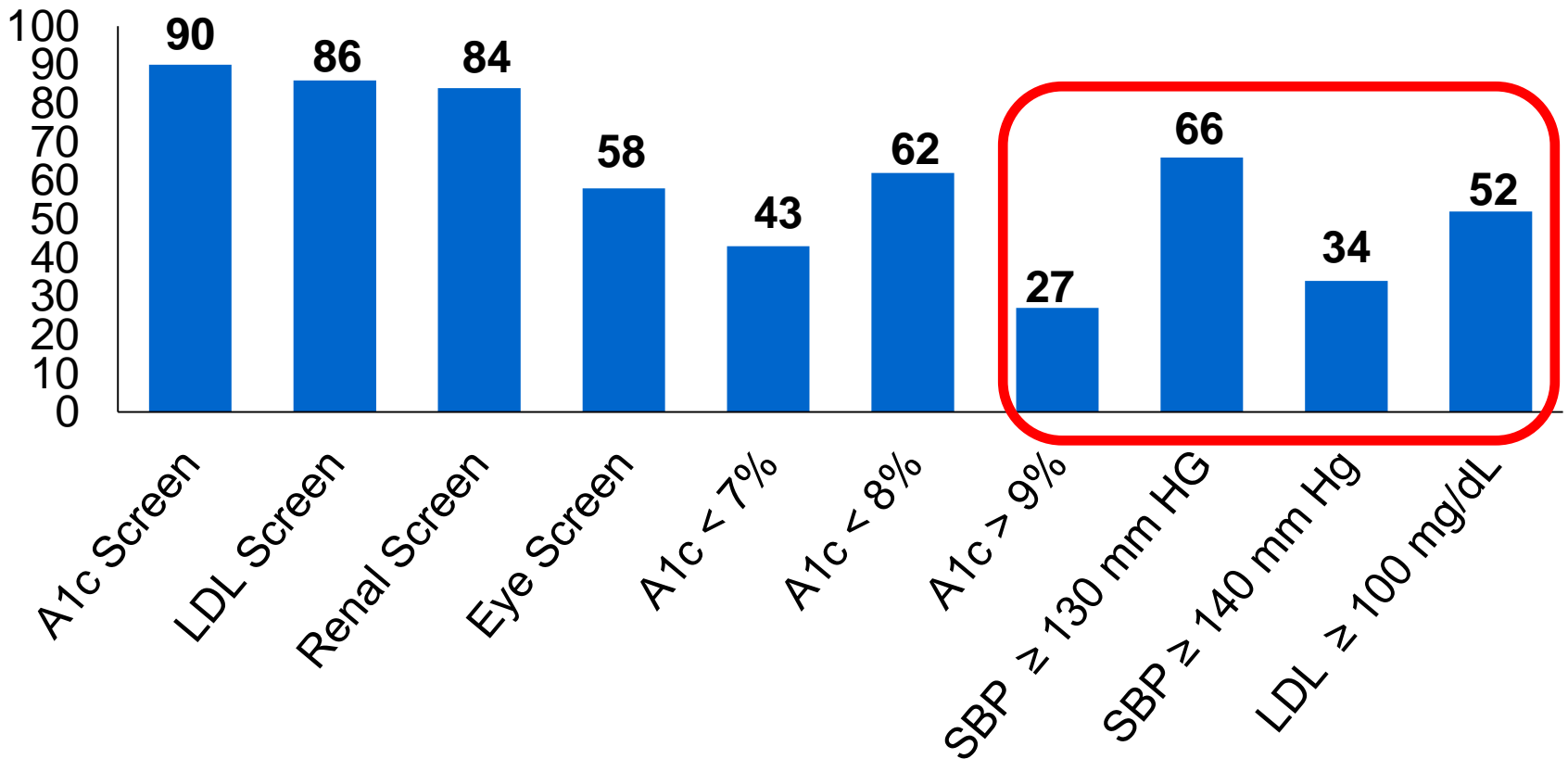
## 2008 World Health Organization Report

• Country	DALE* Rank	Overall Rank
• France	4	1
• Japan	9	10
• UK	24	18
• Cuba	36	39
• Canada	35	30
• <b>US</b>	<b>72</b>	<b>37</b>

\* *Disability Adjusted Life Expectancy*

# National Committee for Quality Assurance (NCQA) Performance Measures

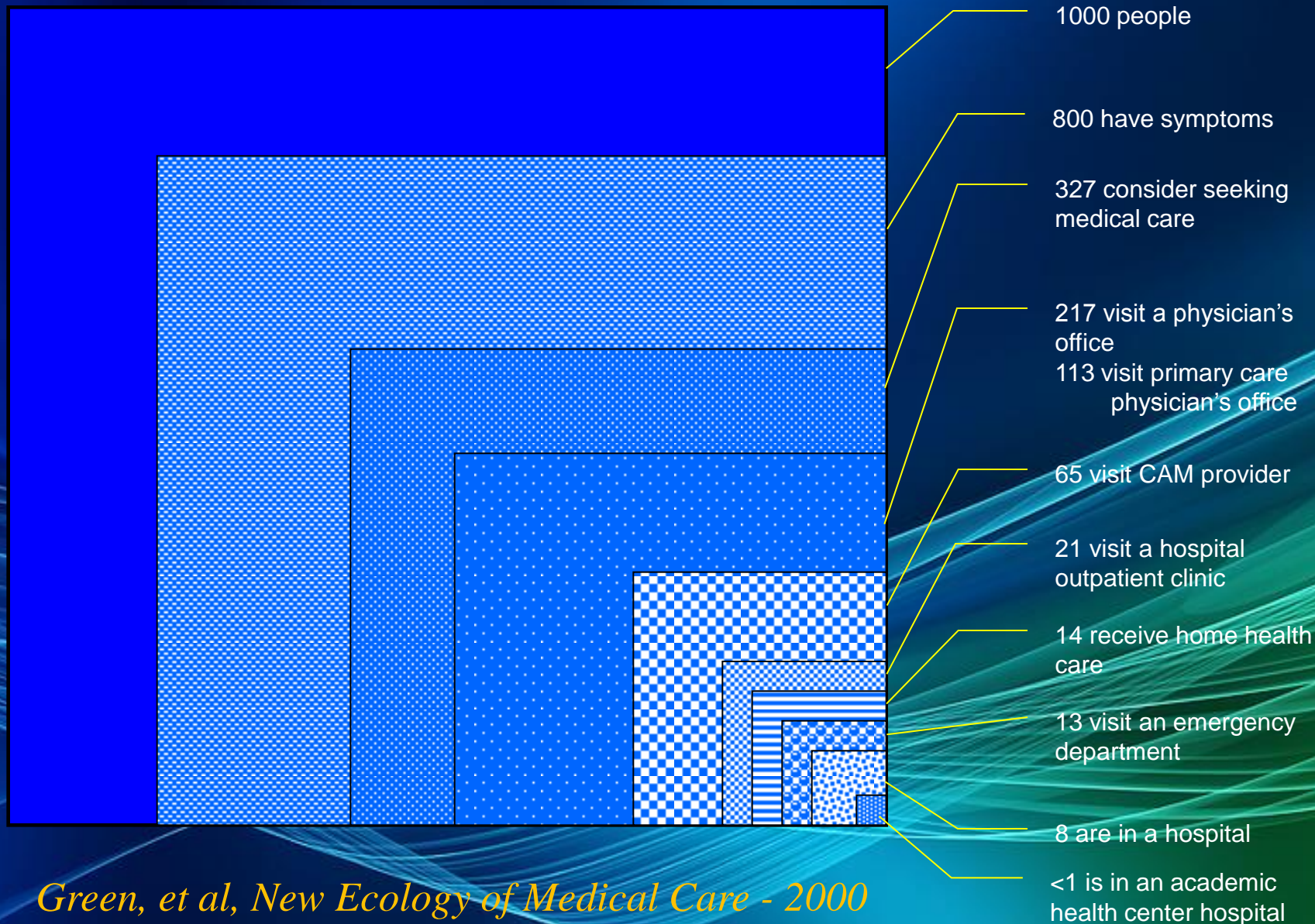
## Percentage of Patients Achieving Goals



LDL, low-density lipoprotein cholesterol; SBP, systolic blood pressure

National Committee for Quality Assurance. The State of Health Care Quality 2011. [www.ncqa.org](http://www.ncqa.org).

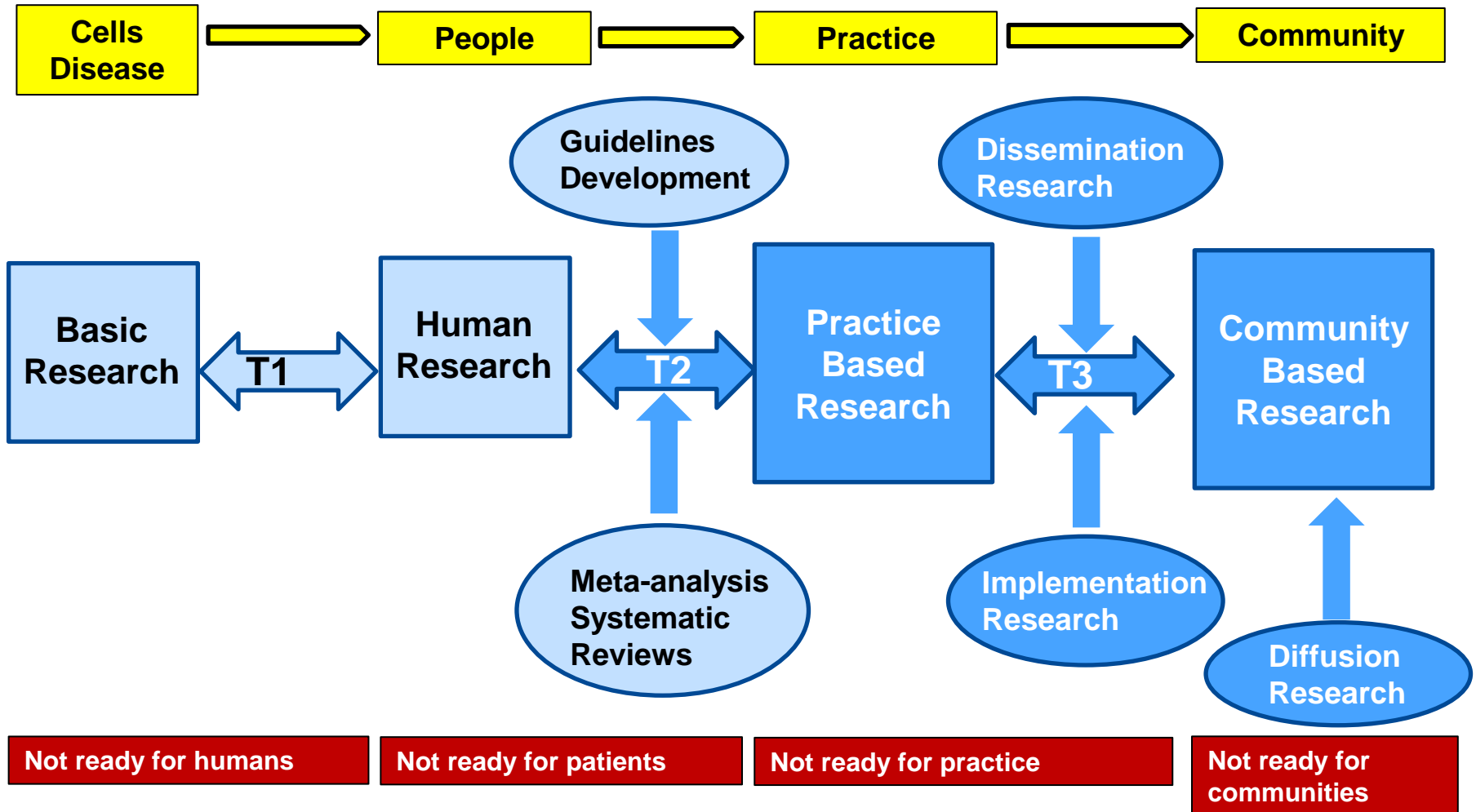
# In an average month:



*Green, et al, New Ecology of Medical Care - 2000*



# Research Pipeline



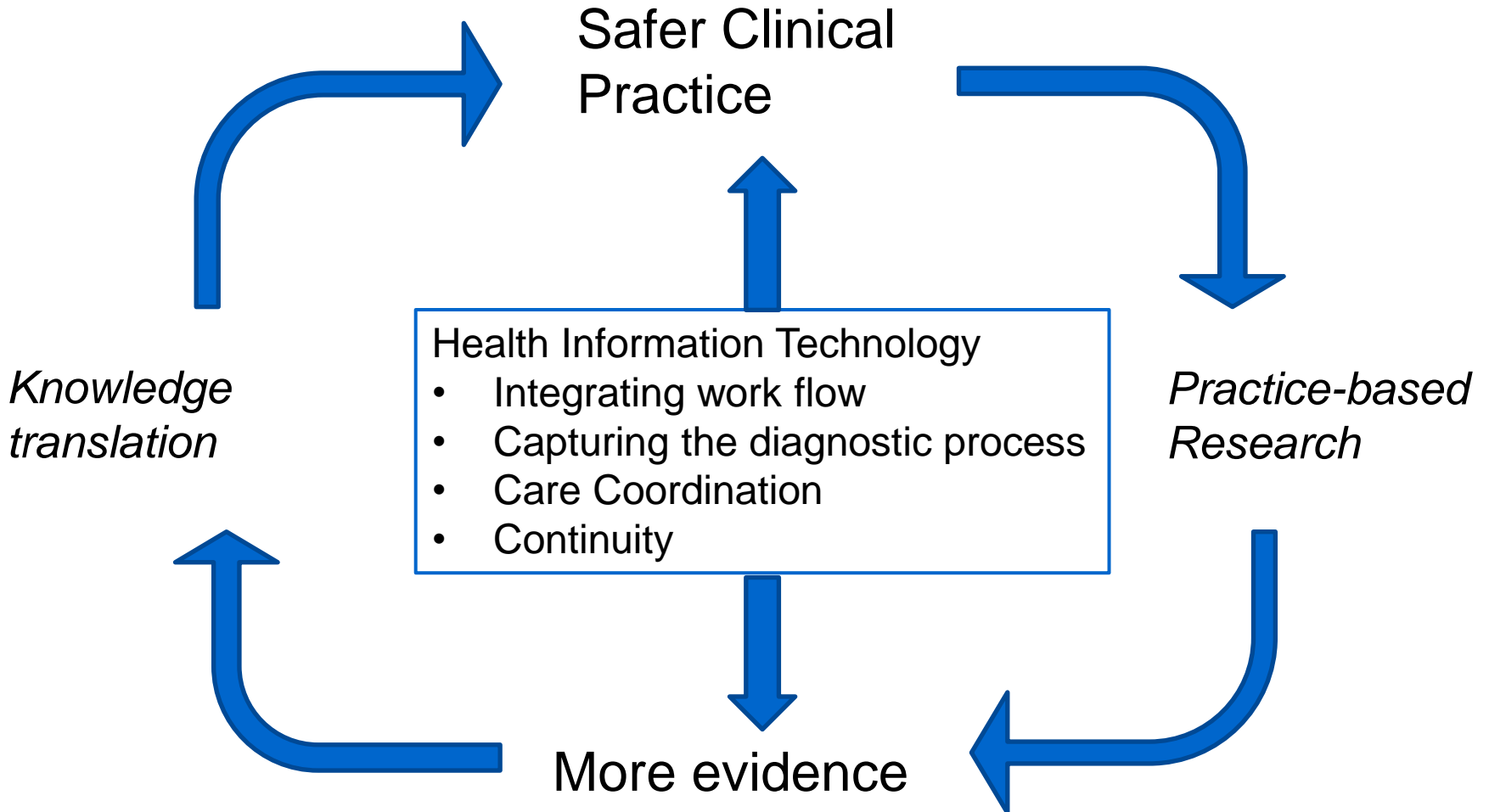
# Practice-Based Research

Clinical Research Is Ideally Conducted In Settings That Reflect The Population For Which The Results Will Be Used.

*“...whole field essential to the progress of medicine will remain unexplored, until the general practitioner takes his place as an investigator.”*

Sir James MacKenzie  
1916

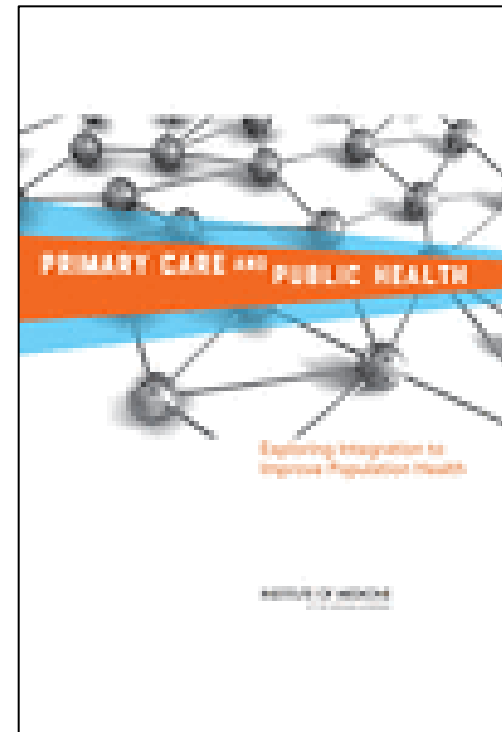
# The Learning Health Care System



# Institute of Medicine

## Recommendation 2

- Create common research and learning networks to foster and support the integration of primary care and public health to improve population health
- Support these networks in disseminating best practices in the cooperation of primary care and public health



*Primary Care and Public Health: Exploring Integration to Improve Population Health.* IOM (Institute of Medicine). 2012.



# Founded on a set of core principles

- Common goal of improving population health
- Derived from successful integration efforts
- Community involvement in defining and addressing needs
- Sustainability
- Strong leadership that works to bridge disciplines, programs and jurisdictions
- Collaborative use of data and analysis

# Hallmarks of Cooperation

- Mutual awareness – informed about activities
- Cooperation-shared resources
- Collaboration-joint planning and execution
- Partnership- integration on a programmatic level

# Minnesota's PBRN Experience



National AHRQ PBRN  
Resource Center

- Research Action Network
- The Minnesota Academy of Family Physicians Research Network
- Mayo Health System Practice Based Research Network
- Dental Practice-Based Research Network
- Minnesota Pharmacy Practice-Based Research Network
- Pediatric Research in Office Settings
- National Research Network

# Research to Action Network



The Minnesota Public Health Research to Action Network is a partnership of:

- State Community Health Services Advisory Committee
- Minnesota Local Public Health Association
- University of Minnesota School of Public Health
- Minnesota Department of Health

# The Minnesota Academy of Family Physicians Research Network (MAFPRN)



*Formed in 1979,  
is among the oldest PBRNs in the US*

*The MAFPRN has had a profound impact on the development of  
the concept of practice-based research networks, and on the actual  
development and maturation of specific practice-based networks*

*Final Report, Inventory and Evaluation of Clinical Research Networks,  
National Institutes of Health, July 2006*



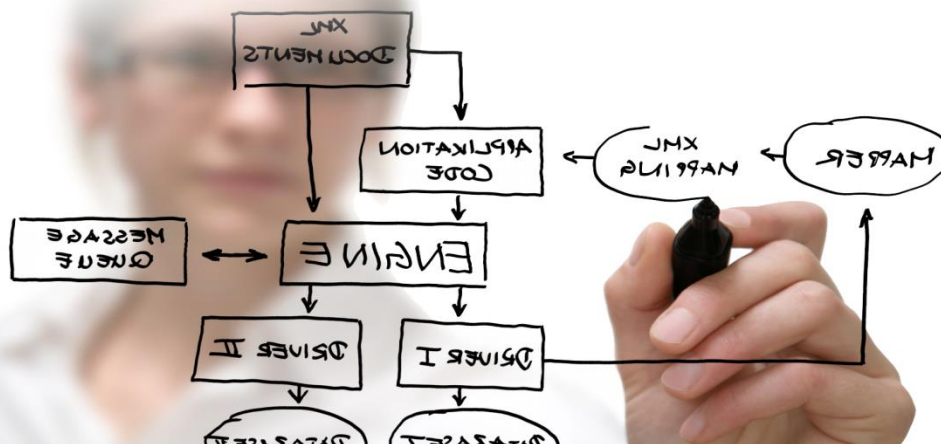
# National AHRQ PBRN Resource Center

**A national resource for practice based research  
at the University of Minnesota Center of Excellence in Primary Care  
and the MAFPRN**



## **150 Primary Care Practice-Based Research Networks**

- 67,000 Network Members
- 16,500 Primary Care Practices
- Serving 52.7 Million People



# Center of Excellence in Primary Care

**A national resource for practice based research**





# Why Cooperate?

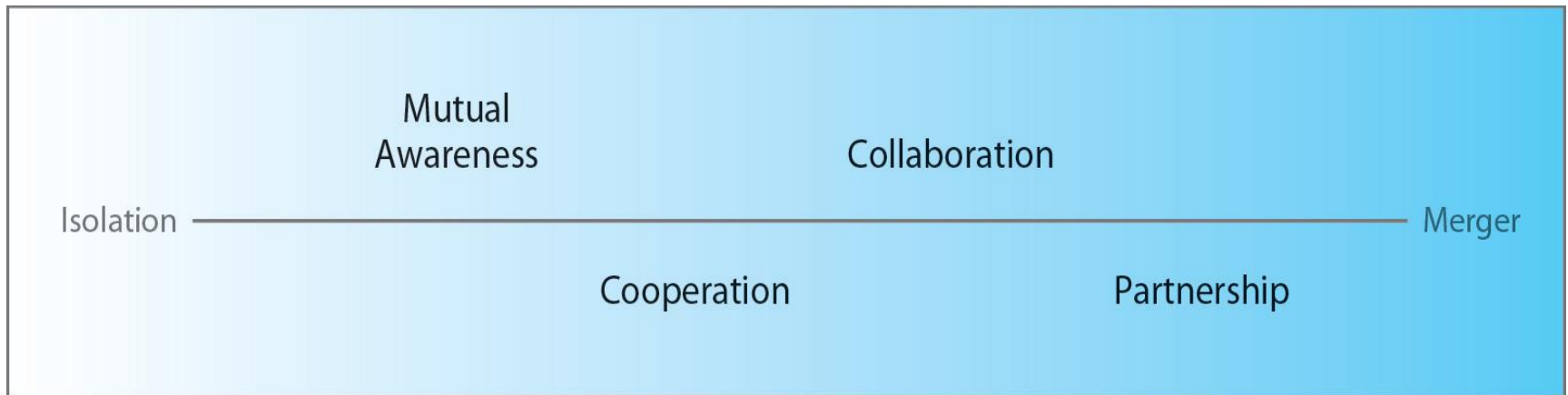
- A wide array of public and private actors across the nation contribute to the health of populations
  - Integration of primary care and public health could enhance the capacity of both sectors to carry out their missions and link with other stakeholders to catalyze a collaborative, intersectoral movement toward improved population health



# Measuring variation in the integration of primary care and public health

- Funding from the Robert Wood Johnson Foundation
- Multi-state PBRN study of local cooperation between public health and primary care and how it impacts community health outcomes
- Minnesota Department of Health (PI Beth Gyllstrom) and the University of Minnesota (Co-PI Kevin Peterson)
- Minnesota, Colorado, Wisconsin, and Washington.
- Coordinated by the National Network of Public Health Institutes (NNPHI), with guidance from the National Coordinating Center for Public Health Services and Systems Research (NCC)

# Spectrum of Integration



- Qualitative interviews to explore the continuum of cooperation
- Develop and field test a set of measures
- Combine survey data with socio-economic data and existing surveys to evaluate associations with immunization rates, smoking, and physical activity



# Research to Action Network

## Goals:

Identify best practices related to the integration of primary care and public health, and convening stakeholders and to share best practices for integration.

Provide a detailed portrait of the current landscape for cooperation, along with principles that can serve as a roadmap to move the nation toward a more efficient health system

# **For More Evidence-based Practice, We Need More Practice-based Evidence.**

**Two examples of Public Health and  
Practice cooperation in Minnesota**

# Primary Prevention of Cardiovascular Disease with Aspirin

## **Impact of a 4-month community-based intervention**

- Lillehie Heart Institute, SPH, Family Medicine, UMN, Million Hearts
- Health promotion and intervention campaigns have long used mass media as a means of delivering persuasive messages directly
- Meta-analysis reveals small effect sizes from these wide ranging health campaigns
- The public is increasingly accessing healthcare information from a variety of sources, but most adults continue to rely upon their primary care physician and other healthcare team members as trusted sources of reliable healthcare information
- Practice change must encompass a full health system interventional approach

# Pilot survey of 601 Minnesotans

- Over a third (37%) of individuals do not pay attention to health related campaign messages delivered through old media formats (e.g., television, print, radio),
  - Only 6% were aware of current or past cardiovascular health messages they consumed through traditional media campaigns
- 71% reported using online media as a primary source for health-related information, compared to 35% for television, 23% for newspapers, and 15% for radio.
  - WebMD was the most trusted media source for healthcare advice
- Healthcare providers remain a trusted source among the adult population

# Partners in Prevention

- Advocate and evaluate the USPSTF recommendation for Aspirin for primary prevention of cardiovascular disease in Minnesota
- Mass media campaign
- Supplemented with a health systems intervention approach



# USPSTF Recommendation

*The USPSTF recommends the use of aspirin for men ages 45 to 79 years when the potential benefit of a reduction in myocardial infarction outweighs the potential harm of an increase in gastrointestinal hemorrhage.*

**Grade: A recommendation**

*The USPSTF recommends the use of aspirin for women ages 55 to 79 years when the potential benefit of a reduction in ischemic stroke outweighs the potential harm of an increase in gastrointestinal hemorrhage.*

**Grade: A recommendation**

# Initial Physician Focus Groups

- Primary care providers were aware of the recommendations
- They 'encouraged', but did not 'push' aspirin
- Providers were not active in recommending aspirin use for their patients for primary prevention

# Initial Community Focus Groups

- Most members of the public described their own physician as the primary source for health information
- Many use websites, family and friends, television and printed materials, however most said they did not pay attention to health advertising.
- They preferred to communicate directly with their health professional in person or by phone.
- 69% believed in the utility of aspirin
- 75% said they would take aspirin, but only if their doctor recommended it

# Partners for Prevention

## Pilot Study: Hibbing, MN

- Population 16,231 (2010 census)
  - medical catchment area 2-3 times larger
- 1 hospital
- 3 competing medical group practices,
  - plus 1 VA clinic and 1 free clinic
- 27 primary care physicians, 5 nurse practitioners and 76 clinic nursing staff

# Partners in Prevention

- A 3-tiered approach was used for message dissemination,
  - one-on-one interventions for aspirin eligible candidates,
  - group-level interventions targeting health care professionals
  - community-wide interventions focusing on population



# Media Campaign

March, 2012 to June, 2012

- Multiple media outlets were used including:
  - Billboards, posters, radio spots, gas pump toppers, print newspaper, brochures, on-line banner advertisements, Facebook, and a program website.
- Partnerships were established with public and private institutions including:
  - the city government
  - public library
  - chamber of commerce
  - community college
  - pharmacies
  - local churches
  - employers
- The regional Area Health Education Center served as the program's local liaison
- The three competing private health systems in the city established formal commitment to the program goals via a signed memorandum of understanding

# Partners in Prevention

- Baseline and 4-month telephone follow-up surveys of randomly selected individuals
  - men aged 45-79 and women 55-79
- Participation rates of 56% and 51% respectively.

# Partners in Prevention

Adjusting for sex and age, there was a two-fold difference in aspirin use between the baseline and 4-month survey (OR = 2.11; 95% CI 1.07-4.16).

Baseline	4 months
<b>36%</b>	<b>54%</b>

Initiated aspirin in response to:

- Media advertisements 67%
- Community information 31%
- Experience with someone with CV event 23%
- Advice from their health care provider 67%

Regular aspirin users were 4.6 times more likely to have an aspirin discussions with their health care provider (OR = 4.6; 95% CI 1.62–13.14).

# Mill City Innovation and Collaboration Center (ICC)

*A laboratory for primary care*

*Community engagement in defining the research agenda for primary care practice based research*

**Mission: Foster innovation and discovery in ambulatory health care through community engaged research and multidisciplinary partnerships.**

# Ambulatory Care - A Shifting Paradigm



- Increased complexity of clinical demands
- Electronic Medical and Personal Health Records
- Health Care Homes
- Validated biometric data
- Care coordination
- Interprofessional health care teams
- Education and training
- Home monitoring
- Wearable Technology



# The Mill City Innovation & Collaboration Center (ICC)



- The country's first practice-based research lab with dedicated space for multi-disciplinary collaboration and technology integration.
- Focus on innovations that address the needs of ambulatory patients with chronic disease, especially CHF, COPD, diabetes, and memory loss.

# Innovation and Collaboration Center

- Innovation, without physician adoption, patient adherence and practice acceptance, will fail to achieve its potential.
- Venue for collaboration
- A location for simulated (and actual) testing of new care delivery models.
- A well-equipped laboratory for testing, evaluating, and showcasing technologies in order to speed the integration of patient-centered solutions into practice.

# Implementation Science

- Phase 1- Expert medical and/or translational science evaluation
- Phase 2- Initial testing and evaluation in a simulated environment
- Phase 3- Implementation and testing in a (real) model practice environment
- Phase 4- Implementation and testing in early adopter practices
- Phase 5 –Dissemination to PBRN practices

# Patients: The Most Underutilized Part Of The Health System





# Community Engagement



- **Improves Relevance of Research Question to the Community**
  - Enhances focus on access and community impact
- **Increases Effectiveness**
  - Identifies Medical Errors (EHRs)
  - Coordination of public and community services in the management health conditions
  - Informs the purchase of health care services
- **Community Based Participatory Research**





# Moving Innovation into Practice


Community and Public Health engagement in:

1. Initial focus group evaluations
2. Simulated environment testing
3. Model environment testing

# 65 years ago (1948)

- England formed the National Health Service
- A General Practitioner provided care for 2000 patients per year
- Today a Family Physician provides care to an average of 1750 patients per year





*Achieving a substantial and lasting improvement in population health will require a concerted effort aligned under a common goal.*

*Institute of Medicine 2012*

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***“Knowing is not enough, we must apply. Willing is not enough, we must do.”***

***— Goethe***

