

# Assessing the Strength of Primary Health Care in Our Region

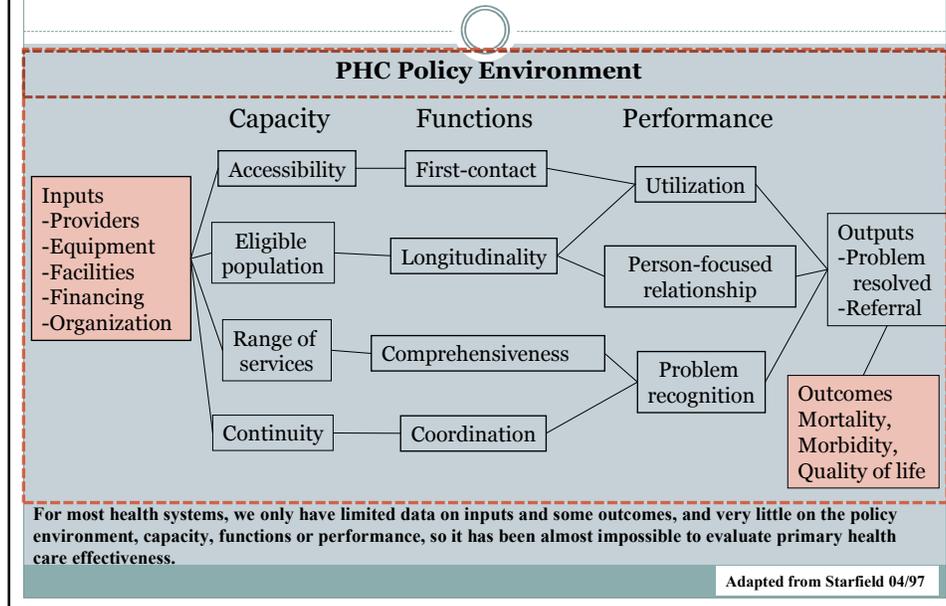
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## Complexities of assessing PHC vis-à-vis the rest of the health system

- Countries of the Americas have committed to strengthening PHC-based health systems
- PHC has specific, unique characteristics that may not be well-captured in overall health system assessment strategies
  - e.g. Accessibility is essential to PHC's first contact function, but in many countries may be functionally independent of access to hospital and emergency care, and payment mechanisms may differ by provider type.
- In many countries there are multiple sub-systems of primary health care, particularly at the clinical level
  - Providers can work across sub-systems and patients may consult multiple providers/systems (also true of specialty care)
- We need to identify important shared health policy factors that influence PHC while also measuring PC-specific functions

## Essential Features of Primary Health Care



## WHO Global Atlas of the Health Workforce- Disaggregated Data, 2006

<http://www.who.int/globalatlas/docs/HRH/HTML/Dftn.htm>

1. **Physicians (Includes generalists and specialists)**
2. **Nursing personnel**
3. Midwifery personnel
4. Dentists
5. Dental technicians/assistants
6. Pharmacists
7. Pharmaceutical technicians/assistants I
8. Laboratory scientists
9. Laboratory technicians/assistants
10. Radiographers
11. Traditional medicine practitioners
12. Traditional birth attendants
13. Medical assistants
14. Environmental and **public health workers** (environmental /public health officers/ technicians, sanitarians, hygienists, district health officers, public health inspectors, food inspectors, malaria inspectors, etc.)
15. **Community health workers** (community health & health education officers/workers and aides, family health workers, lady health visitors, health extension package workers, community midwives and etc.)
16. Personal care workers
17. Other health workers Includes dieticians and nutritionists, occupational therapists, and others...including **medical trainees and interns**
18. Health management and support workers

## So we need a multistage approach drawing data from multiple sources

### 1. Descriptive data about PHC policies and programs

- Structure of the health system(s) and PHC's role within it
- Basic input data (expenditures, providers, facilities)
  - ✦ These come from documents and interviews

### 2. Measured aspects of PHC's effects

- % population with barriers to attaining basic care, consulting doctor in past year, and some PHC-sensitive outcomes
  - ✦ These come from secondary data sets (e.g. DHS), and administrative data (vital statistics)

### 3. PC organization and delivery

- PC domains
  - ✦ These can only come from special data collection activities

## What do the instruments measure?

<u>PHC system characteristics</u>	
<ul style="list-style-type: none"> <li>• Equity-oriented health policies</li> <li>• Healthcare finance and resources</li> <li>• Human resources and training</li> <li>• Management and information systems</li> </ul>	Systems version only
<ul style="list-style-type: none"> <li>• Primary Care Functions                             <ul style="list-style-type: none"> <li>• Access</li> <li>• First contact</li> <li>• Longitudinality</li> <li>• Coordination</li> <li>• Comprehensiveness</li> <li>• Family-centeredness</li> <li>• Community orientation</li> <li>• Health professionals</li> </ul> </li> </ul>	All versions

## Scoring the PCAT surveys



### Level 1: INDICATORS (specific questions/indicators by PC domain)

Example: ACCESS

1. Can the population obtain access to primary care services within 24 hours?  
 Definitely  Mostly  Mostly Not  Definitely Not
2. Once at the facility, do people generally have to wait more than 30 minutes to be seen by a health professional?  
 Definitely  Mostly  Mostly Not  Definitely Not

### Level 2: DOMAINS (average response for all indicators in each domain)

Access score: sum of all scores/# questions

Longitudinality score: average response for all questions in that section

### Level 3: PC SCORE (averaged score from each domain)

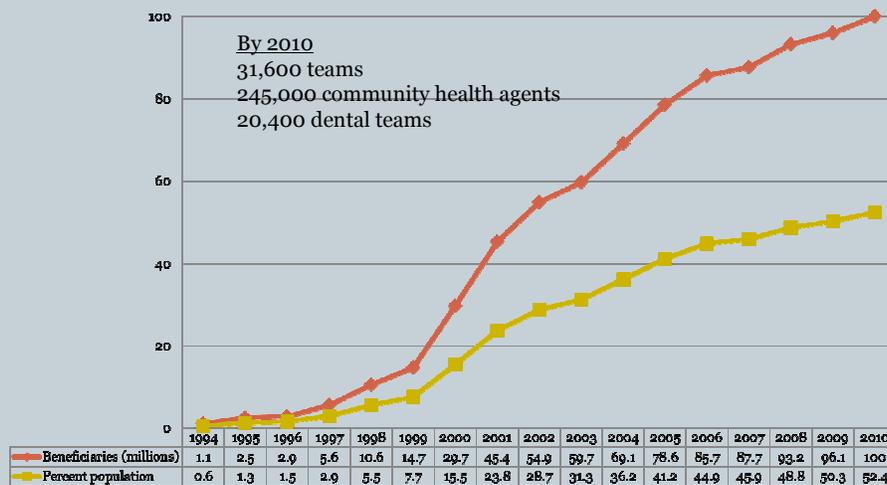
Total PHC score = sum of all domains

## Case study- Brazil



- National health system (SUS)
- New policy/program – Family Health Strategy, begun in 1994
  - Multi-professional teams (1 MD, 1 RN, 1 RN asst, and 4-6 community health agents),
  - Community orientation (organized by family and geographic territory-3,540 people assigned to each team)
  - Use local data to plan health activities and services
  - Active promotion –home visits by community health workers, conduct neighborhood health promotion activities
  - Local health councils stimulate public participation, accountability, and intersectoral actions

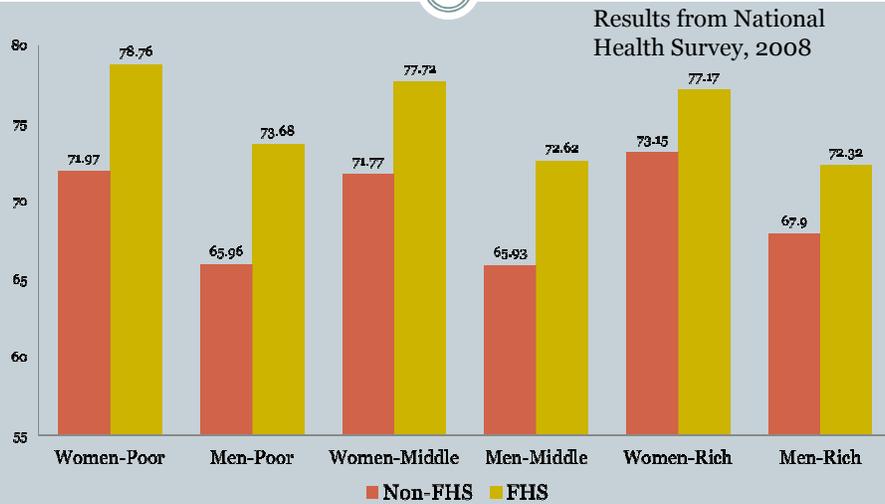
## Evolution of Brazil's Family Health Strategy



## Assessment questions

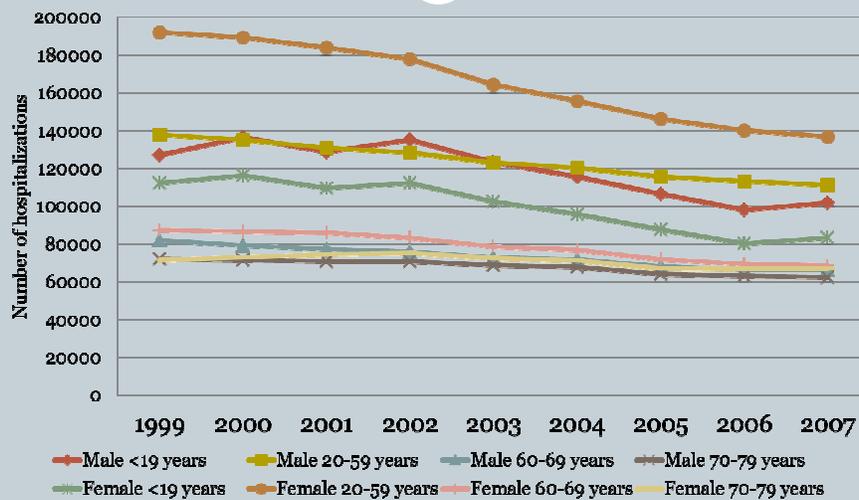
1. Was the new model of care (FHS) actually “better” than the old model?
2. Did the FHS improve access to care?
3. Did the FHS improve equity in access?
4. Did the FHS enhance the efficiency of the health system?
5. Did the FHS improve health outcomes?

## FHS resulted in better access to services: population with a usual source of care, 2008



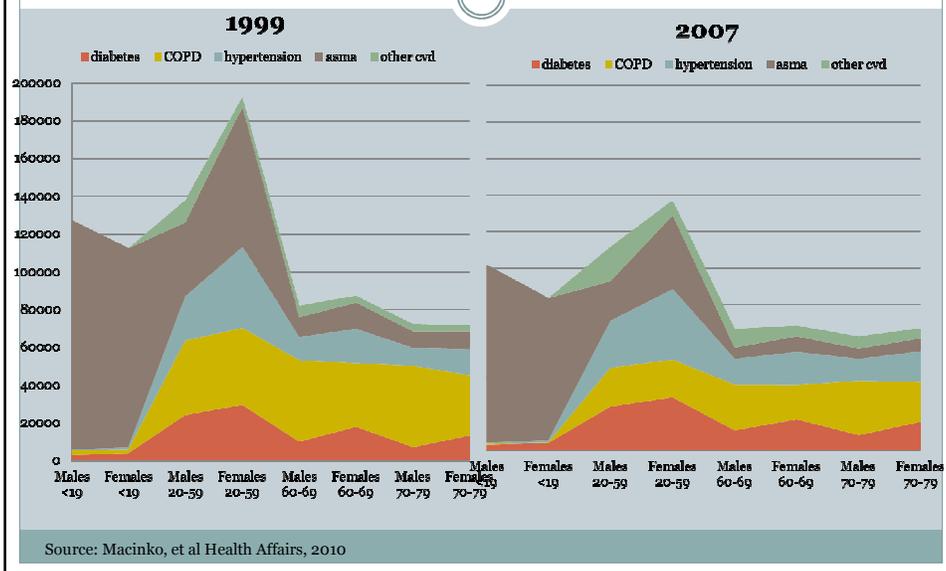
Results from robust Poisson regression controlling for age, educational level, self-rated health, chronic conditions, water supply all set at their means. Analyses control for complex sample and include population weights.  
Source: Macinko, Lima-Costa, (forthcoming).

## FHS expansion resulted in fewer potentially avoidable hospitalizations, Brazil

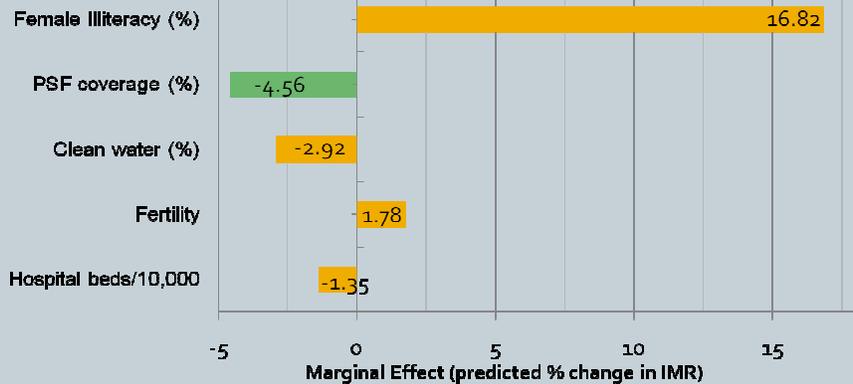


Source: Macinko, et al American Journal of Public Health, 2011

## FHS expansion resulted in fewer chronic disease hospitalizations in Brazil



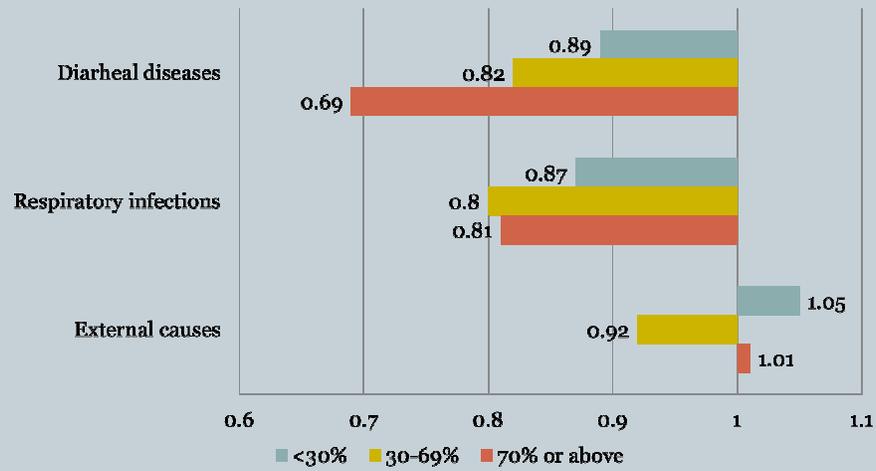
## FHS expansion led to better health lower IMR in Brazil, 1990-2002<sup>1</sup>



\*Percent change in IMR predicted with a 10% increase in the independent variable, with all other variables at their mean. Estimated using dynamic panel models. Non-significant variables and fixed effects not shown.

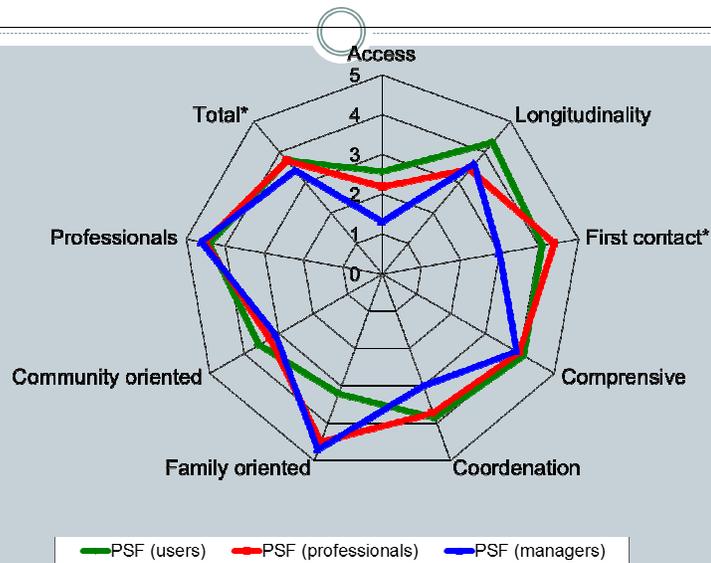
Source: Macinko, J. et al (2006). An Evaluation of the Impact of the Family Health Program on Infant Mortality in Brazil, 1990-2002. *Journal of Epidemiology and Community Health* 60: 13-19.

## Higher FHS coverage associated with lower <5 mortality from diarrhea and respiratory infections



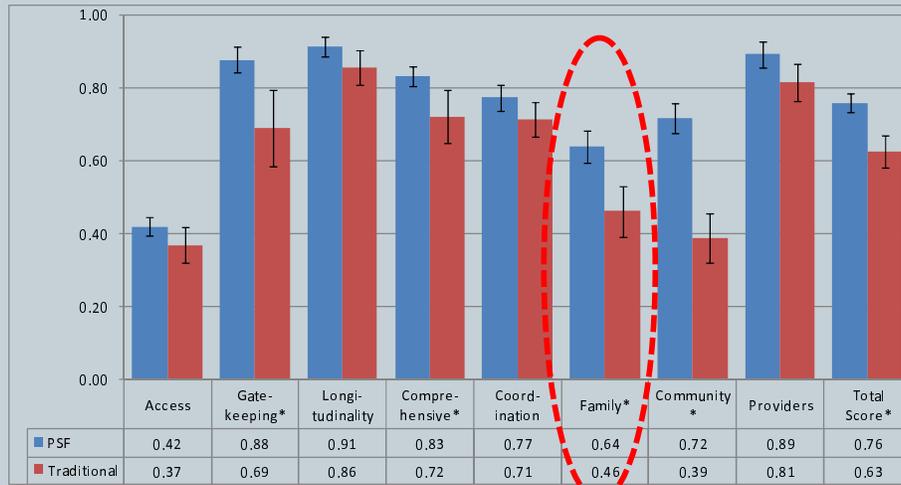
Source: Aquino, BMC Public Health , 2011

## Comparison of different PCAT surveys, Sao Paulo



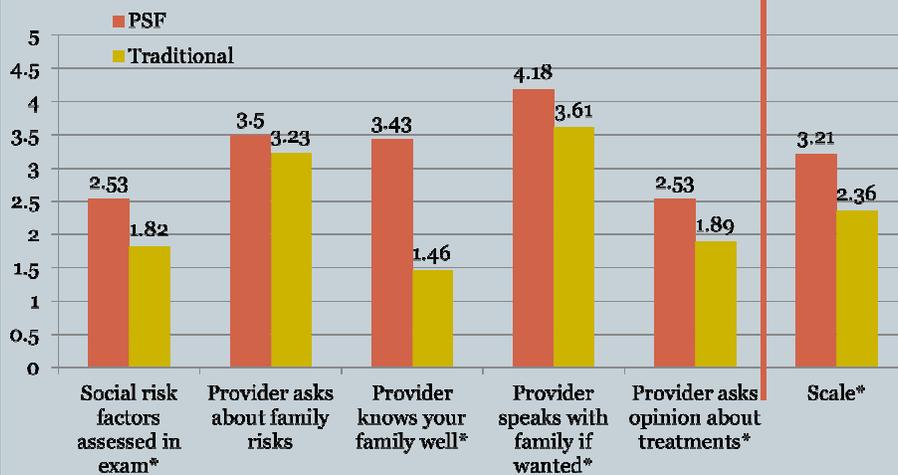
## Results of user PCAT survey between new (PSF) and traditional providers, Petrópolis, RJ 2003

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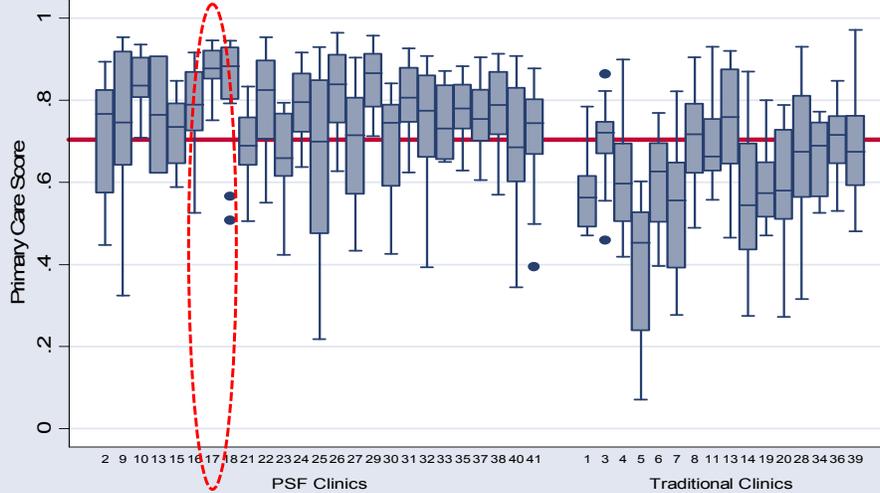
Source: Macinko, Almeida, Sa 2007

## Client perceptions of Family orientation in new (PSF) and traditional providers, Petrópolis, RJ 2003



## Primary care user assessments: variation by health center

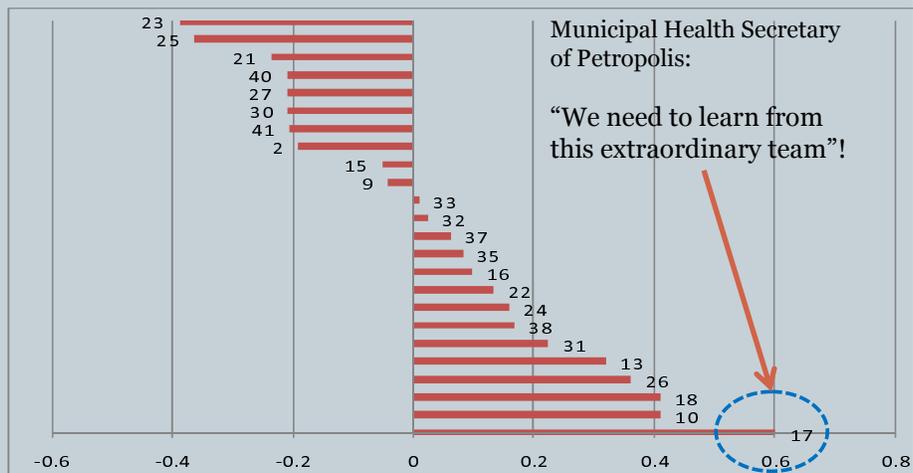
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Source: Macinko, Almeida, Sa, 2007

## Distance from the municipal mean primary care index, by health center

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Macinko & Almeida, 2004

## Lessons learned from the PCAT in Brazil



- Requires planning and adaptation
- Very intuitive results- managers, doctors, nurses, and community health workers all understood the concepts and wanted to know more
- Benchmarking was helpful in identifying high performing health centers (required good leadership to stay focused on improvement)
- The facility, provider, and user assessments have now been applied in over 10 cities in Brazil

## PCAT contribution to PHC assessment in Brazil



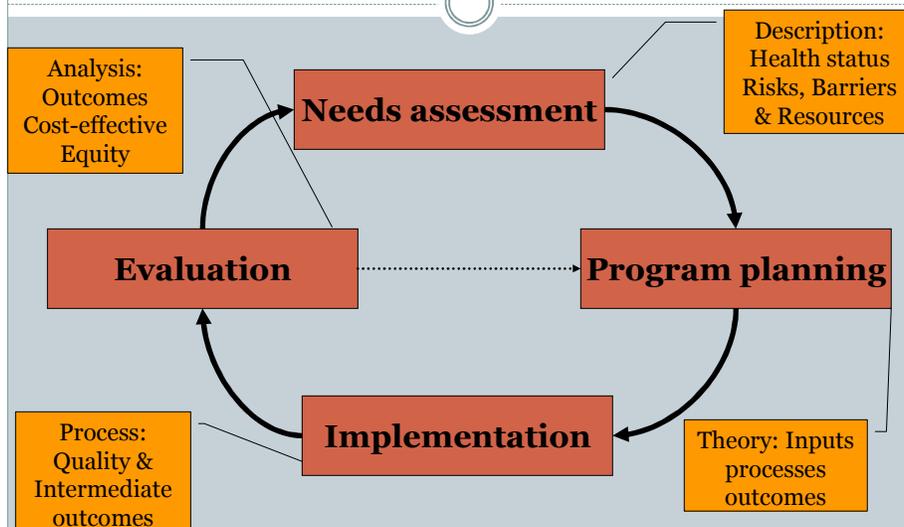
- Identified areas where the new PHC model was stronger than the old model
- Highlighted characteristics of the health system at large that needed to be addressed (hours of operation)
- Allowed for benchmarking of best practices
- Provided the evidence necessary to complement studies of impact.
- Answered the question: HOW did the new model of care achieve better results?

## Concluding thoughts

1. Primary health care is not a panacea: it is one strategy of many needed to improve population health.
2. PHC functions must be measured in order to know how well the system is doing its job, but the way this happens will differ by context and country.
3. Measurement (use of tools) is only the first step (it should probably be the third or fourth step in a larger process of assessment).
4. It is impossible to answer all questions about PHC with only one approach – often need a set of approaches linked by common policy objectives

→ However, in the absence of impact studies, evidence of PHC performance that comes from providers and citizens can be very powerful.

## Developing a workplan for conducting PHC assessments



## Evaluation as a Three-Act Play

### ACT I: Asking the Question

- Scene I: Development of a policy question  
Scene II: Translation of the policy question into an evaluation question

### ACT II: Answering the Question

- Scene I: Development of an evaluation design to answer the question  
Scene II: Development of the methods to carry out the design  
Scene III: Conducting the evaluation

### ACT III: Using the Answers in Decision Making

- Scene I: Translation of evaluation answers back into policy language  
Scene II: Development of a dissemination plan for evaluation answers  
Scene III: Use of the answers in decision making and the policy cycle

Source: Grembowski, 2001.

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## Assessing PHC in the Americas: Proposed activities and timeline

- 2011**
- Stage 1: Conduct review of literature and data on the characteristics of primary health care in the Americas;
  - Stage 2: Collect comprehensive, comparable data on the state of PHC systems in the countries of the Americas from key informants;
  - Stage 3: Perform a feasibility study in 1-2 countries to develop guidelines on costs and other needs to implement national PHC assessment surveys ;
- 2012**
- Stage 4: Provide technical assistance to aid countries in implementing national PHC assessments;
  - Stage 5: Countries analyze, interpret, and act on assessment results

## Proposed timeline for assessment

### Activity

1. Planning meeting (identify objectives, timeline, budget)
2. Compile existing documents and secondary data
3. Identify key informants
4. Key informant survey (via Internet)
5. Review report of key informant survey and identify additional knowledge gaps
6. Plan and conduct additional assessments
7. Analysis of assessment data
8. Dissemination of results
9. Implementation of policies/programmatic actions
10. Monitoring and evaluation of changes made (ongoing)

## Step 1: Initial planning activity

- **Who should be included in the planning meeting?**
  - Technical staff and other experts, stakeholders from main PHC sub-systems, representatives of organizations (e.g. family medicine association, nursing association), university and other researchers
- **Expected outcomes**
  - Objectives for PHC assessment
    - ✦ Evaluate a new policy or program? Establish a baseline? Identify areas of variation among service providers?
  - Timeline
    - ✦ How long will the assessment take (this depends on how ambitious your objectives are)
  - Resources needed
    - ✦ Human resources, financial, technical, and managerial

## Step 2: Review existing materials



- **What should be reviewed?**
  - Technical reports, health policy documents, published and unpublished research, international organization reports, administrative data sets, household and facility surveys
- **Expected outcomes**
  - What is known about PHC in the country?
  - How strong is the quality of evidence?
  - How timely and relevant is it?
  - Where are there gaps?

## Steps 3 and 4: Key informant survey



- **Who should be a key informant?**
  - Someone who can respond with a systems-level point of view.
    - × Researchers who have written about and collected data on the health system—particularly on primary care
    - × Ministry of health personnel
    - × Primary Care Provider organizations (Nursing Association, Family Medicine)
    - × Representatives of major health insurers, sick funds, non-profits or private sector primary care service providers
- **Steps**
  - Identify key informants for each sub-sector
  - Identify as many as possible for each sub-sector (10-12 would be ideal)
  - Inform any relevant stakeholders that the survey is important and will be taking place in X month.
  - Designate a local contact person to coordinate with the research team
  - Facilitate enrolment by sending contact information to the NYU team (and/or forward the survey card and emails)

## Systems PCAT on-line survey tool

<http://tinyurl.com/primarycare>

PCAT

WELCOME

The purpose of this survey is to assess the strength of primary care in different countries. Within each country, key informants have been chosen from several population groups, including the Ministry of Health, local health providers, health researchers, and representatives of international organizations working in the health area.

Starting with question 21, you are asked to assess only one type of primary care system in your country or region. By type we mean primary care services organized and delivered by different actors, such as and including Government, Non-Profit (NGOs), and Private sector organizations.

If you can answer for a primary care type in your country, please do so. If you can answer for more than one type, you will have the option of completing a new survey.

We expect that the survey should not take more than 20 minutes to complete. If you have published data, reports, and analysis that are available to you please use them to help you answer the survey. If there are no such materials, then please respond based on your expert judgment. We encourage you to make your best estimate. Please mark "Don't Know" if you do not know the answer or if the question response is not applicable.

In the analysis and reporting of the study results, we will not identify any key informant with their answers to the survey; we would use your name only in the acknowledgments or to follow up with any questions. If you would prefer not to have your name listed, please be sure to indicate that on the survey. If you have any questions about the survey or the study, please do not hesitate to contact Professor James Macdonald at [jmacdonald@upei.ca](mailto:jmacdonald@upei.ca).

We thank you for your help.

1. Would you like to participate in this survey?

Yes  No

## Step 5: Review results of key informant study

- Compare results with other data that you have (see step 1)
- Assess differences between different types of providers, different types of respondents
- Identify areas of strength—how can they be preserved?
- Identify areas of weakness- how can they be improved
- Are there remaining questions about the system that will require additional data collection?

## Step 6: Plan for additional assessments

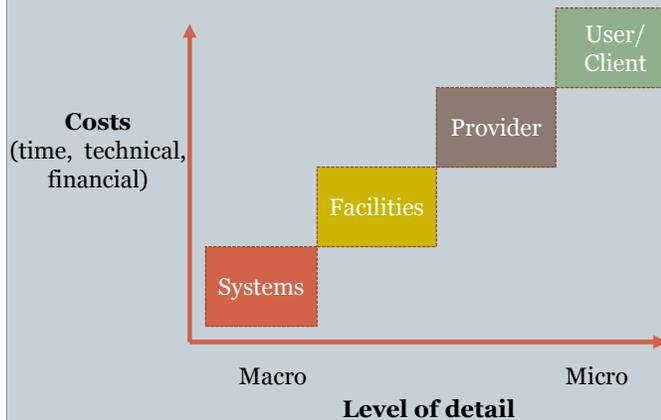
### Facility or provider survey

- Generally quicker and less involved than client survey
- Its scope and representativity depend on assessment goals
- Facility or provider-specific
- Costs still need to be considered

### Client/household survey

- Can be a gold standard
- Must be adapted to some extent
- Its scope and representativity depend on assessment goals
- Generally more costly and time consuming
- Ethical and logistical considerations

## Different types of assessments



## Facilities assessment



- The facilities tool can provide a vision of how each facility meets the primary care functions.
- Requires identification of which facilities are to be included in the sample (or a census). Even in a census, there may be some types of facilities that do not enter the scope of interest.
- Essential to decide who is the best type of respondent at the facility-level (manager, a team leader, or a very experienced professional).
- The questionnaire could also be filled out as a team effort by health workers and managers who are knowledgeable about the operation of the facility. (Note- this might preclude use of the provider tool in the future)
- This needs to be decided at the local/national level and will depend on the objectives of the data collection and research activity.

## Provider assessment



- Intended to go into even finer detail than the facility tool.
- Applied to those who actually provide PC services.
- Careful attention must be paid to how providers are defined, how they would be selected, the conditions under which they would answer the questionnaire, and the analysis of responses that reflects the way (sampling, census, etc.) in which the data were collected.
- In countries where there are no health teams, a single type of provider could respond. In other situations, the tool could be applied to all qualified providers (or to a sample).
- The provider tool can also be used as an intervention in and of itself – used to stimulate discussion about strengths and weaknesses among the team and within the facility in their daily work

## User/Client assessment

- Gathers the finest level of detail about the ability of the PC services to achieve its essential functions.
- Numerous clients are needed to gain a representative sample. This can be costly and time-consuming. Also require more sophisticated statistical analysis.
- Clients could be interviewed in their homes (as part of a household survey, random-digit dialing survey, or via the Internet). Clients could also be interviewed in the facilities. Each approach requires different considerations.
- There may be multiple sources of care that clients may use and that would also need to be taken into consideration.
- There are ethical considerations to be taken into account to respect the rights of the individuals.

## Steps 7-8: Analyzing assessment results

- Technical meeting(s)
- National meeting
- Briefing with policymakers
- Dissemination of results
  - Research community
  - Health practitioners
  - Other stakeholders (payers?)
  - Other sectors (e.g. labor, agriculture, finance)
  - Popular Press

## Steps 9 and 10: Making change

### Facilitators of uptake of research results

- Personal contact between researchers and policymakers
- Timeliness and relevance of the research
- Research that included a summary with clear recommendations
- Good quality research
- Research that confirmed current policy or endorsed .
- self-interest
- Community pressure or client demand for research
- Research that included effectiveness data

### Barriers to uptake of research results

- Absence of personal contact between researchers and policy-makers
- Lack of timeliness or relevance of research
- Mutual mistrust, including perceived political naivety of scientists and scientific naivety of policy-makers
- Power and budget struggles
- Poor quality of research
- Political instability or high turnover of policy-making staff

Source: Innvaer et al. Journal of Health Services Research & Policy Vol 7 No 4, 2002: 239–244

## Concluding thoughts

1. The PCAT tools do not measure every possible aspect of each country's PHC approach, instead, they use indicators to inform the main PHC functions (countries can always add more questions)
2. They don't measure outcomes—but, they can be linked to other systems
3. Measurement is only the first step
4. PHC and PC are only parts of the response needed to improve population health needs.
5. There is a growing international network of professionals who have used the tools and who can provide help.

Thank you!



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<http://tinyurl.com/primarycare>

## Workplan outline



- State of existing knowledge (where there any recent assessments, or will this be the first assessment in some time? Are there other projects underway? If so, how to coordinate?)
- Main objectives of the assessment (what do you want to know?)
- Main stakeholders who should be involved
- Plans for applying the systems tool (key informants)
- How will you use the results of the systems tool?
- Plans for performing other assessments (facility, provider, consumer/client)
- How would you use the results of the other tools?
- Proposed timeline
- What types of resources will be needed for each step?
- Other concerns or considerations?