

# Philippine Primary Care Studies

## Pilot study at the UP Health Service

Comprehensive primary care systems financed by social health insurance in representative areas in the Philippines

Stakeholders' Forum on Primary Care Training Objectives  
NAST | PPCS

Hotel Jen Manila, Pasay City  
01 February 2018



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# Outline

1. Rationale & framework
2. Methods & key features
3. Initial Results

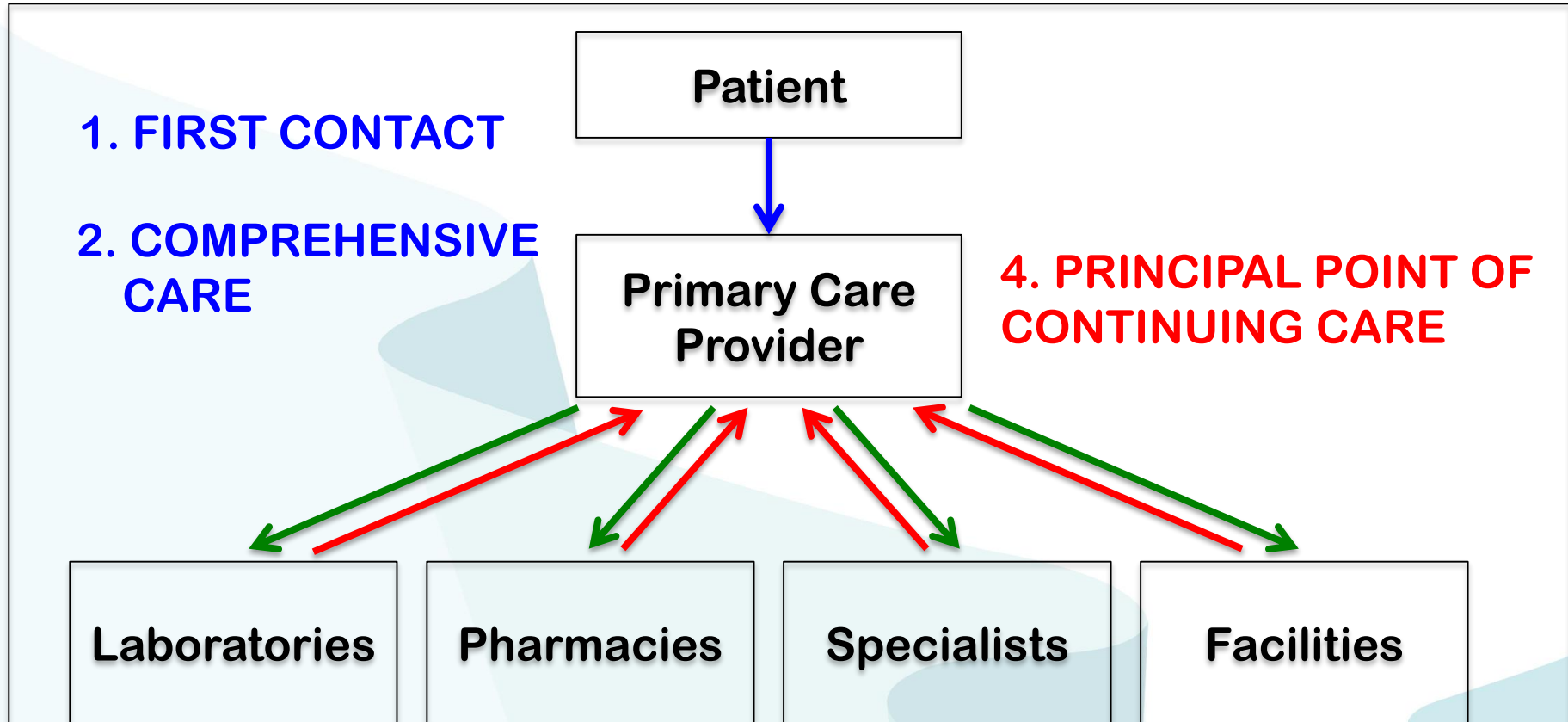


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# What is Primary Care?

Primary Care is a *system* where patients access healthcare, with 4 main functions:

## Primary Care System



3. COORDINATOR FOR SERVICE NETWORK

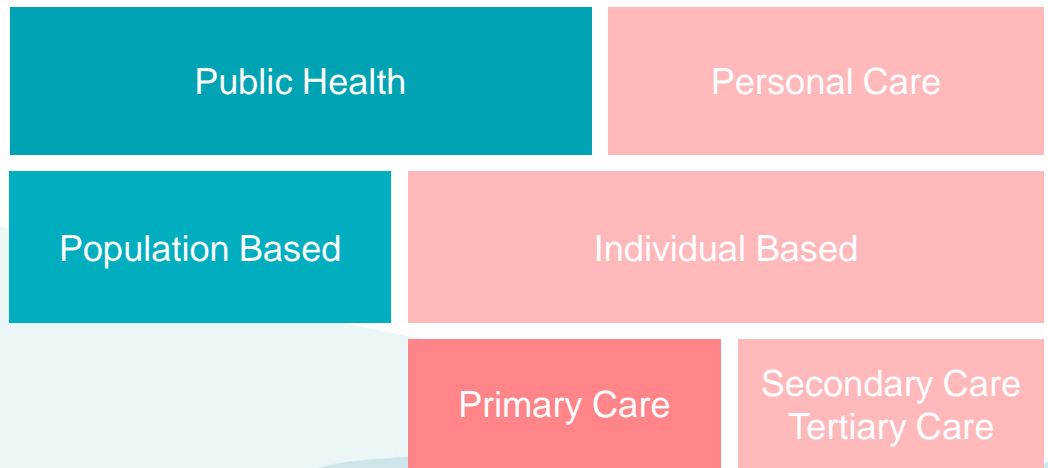
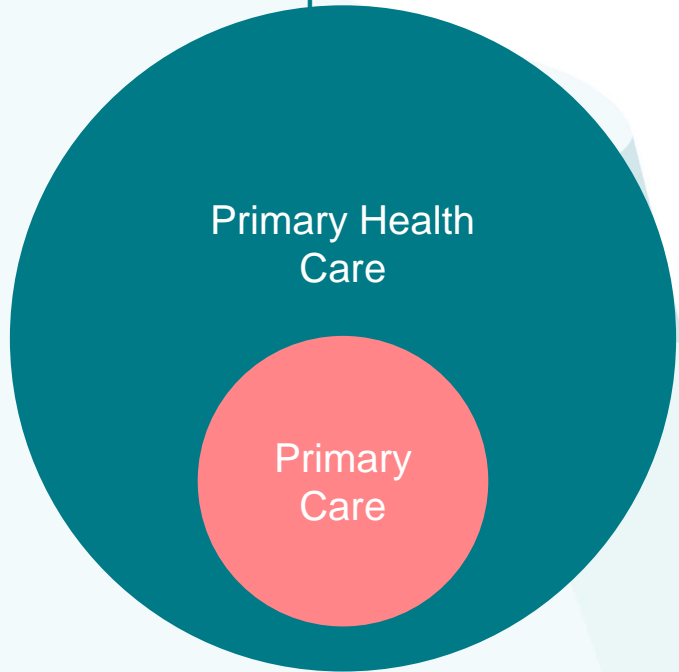


Source: used with permission from Ho BL (2017). Advancing primary care for all Filipinos. [presentation] presented at the Benefit Committee Meeting of the Philippine Health Insurance Corporation, July 2017.



# Primary Health Care vs Primary Care

Population and Individual Based Services



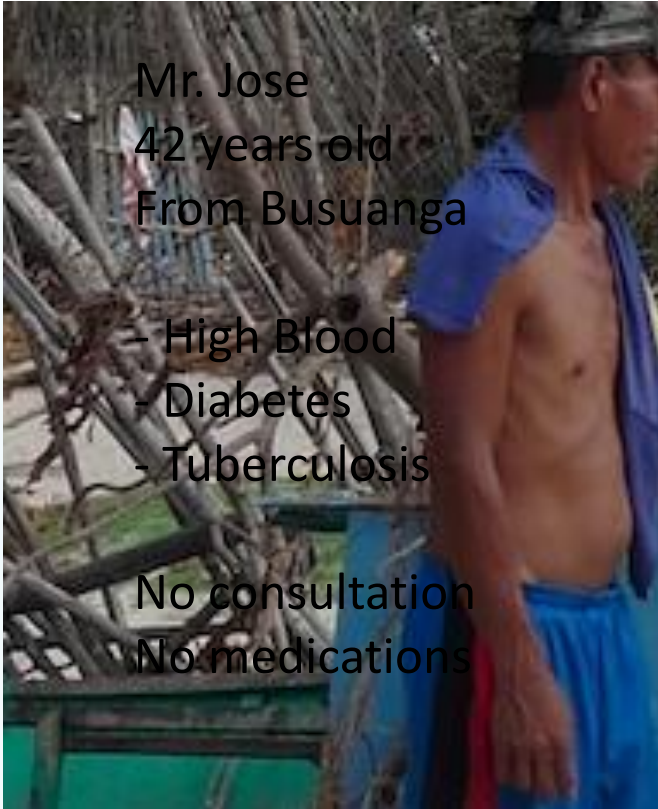
ADVANCING PRIMARY CARE FOR ALL FILIPINOS



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# Inequities in Access

## Too Little Health Care

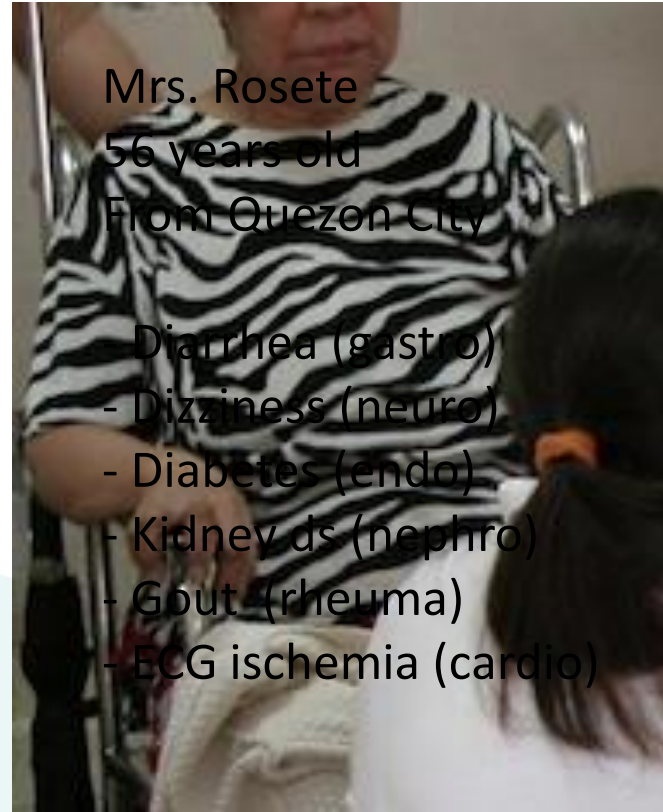


Mr. Jose  
42 years old  
From Busuanga

- High Blood
- Diabetes
- Tuberculosis

No consultation  
No medications

## Too Much Health Care



Mrs. Rosete  
56 years old  
From Quezon City

- Diarrhea (gastro)
- Dizziness (neuro)
- Diabetes (endo)
- Kidney ds (nephro)
- Gout (rheuma)
- ECG ischemia (cardio)



# INEQUITIES IN **ACCESS AND OUTCOMES** FROM WOMB TO TOMB

	Inequity in Healthcare Access	Inequity in Health Outcomes
Pregnancy	<b>Unattended births</b> <ul style="list-style-type: none"> <li>- poorest quintile (58%)</li> <li>- richest quintile (4%)<sup>1</sup></li> </ul>	<b>Neonatal mortality</b> <ul style="list-style-type: none"> <li>- poorest quintile (19/1000)</li> <li>- richest quintile (9/1000)<sup>1</sup></li> </ul>
Childhood	<b>Complete vaccination</b> <ul style="list-style-type: none"> <li>- NCR (80%)</li> <li>- ARMM (30%)<sup>1</sup></li> </ul>	<b>Under-5 mortality</b> <ul style="list-style-type: none"> <li>- poorest quintile (5.2/1000)</li> <li>- richest quintile (1.7/1000)<sup>1</sup></li> </ul>
Adult Life	<b>Current Tobacco use</b> <ul style="list-style-type: none"> <li>- poorest quintile (33%)</li> <li>- richest quintile (18%)<sup>2</sup></li> </ul>	<b>Heart attack rates</b> <ul style="list-style-type: none"> <li>- lowest quintile 40% higher than richest<sup>3</sup></li> </ul>

<sup>1</sup> NDHS, 2013; <sup>2</sup> National Nutrition Survey, 2013; <sup>3</sup> Interheart Study, 2007



# Healthcare System Analysis

TRIPLE BURDEN OF  
DISEASE



WORKFORCE SHORTAGE & MALDISTRIBUTION  
ADMIN. FRAGMENTATION  
POLICY FRAGMENTATION

INEQUITY IN ACCESS  
TO CARE



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# Healthcare System Analysis

TRIPLE BURDEN OF  
DISEASE

HEALTH SYSTEM



HEALTH OF POOR



HEALTH OF RICH



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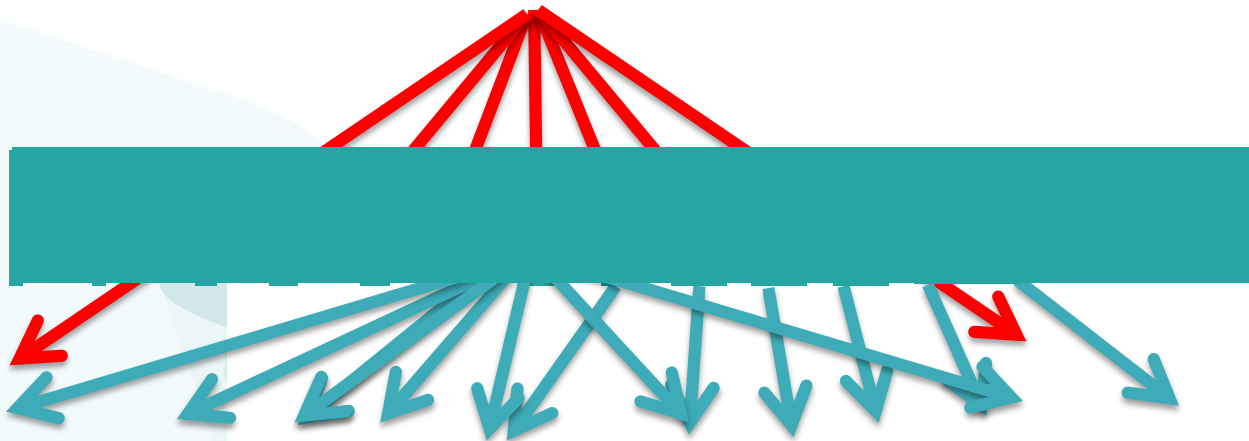


# Healthcare System Analysis

TRIPLE BURDEN OF DISEASE

POORER AREAS

RICHER AREAS



HEALTH OF POOR



HEALTH OF RICH



# Healthcare System Analysis

TRIPLE BURDEN OF  
DISEASE



WORKFORCE SHORTAGE & MALDISTRIBUTION  
ADMIN. FRAGMENTATION  
POLICY FRAGMENTATION

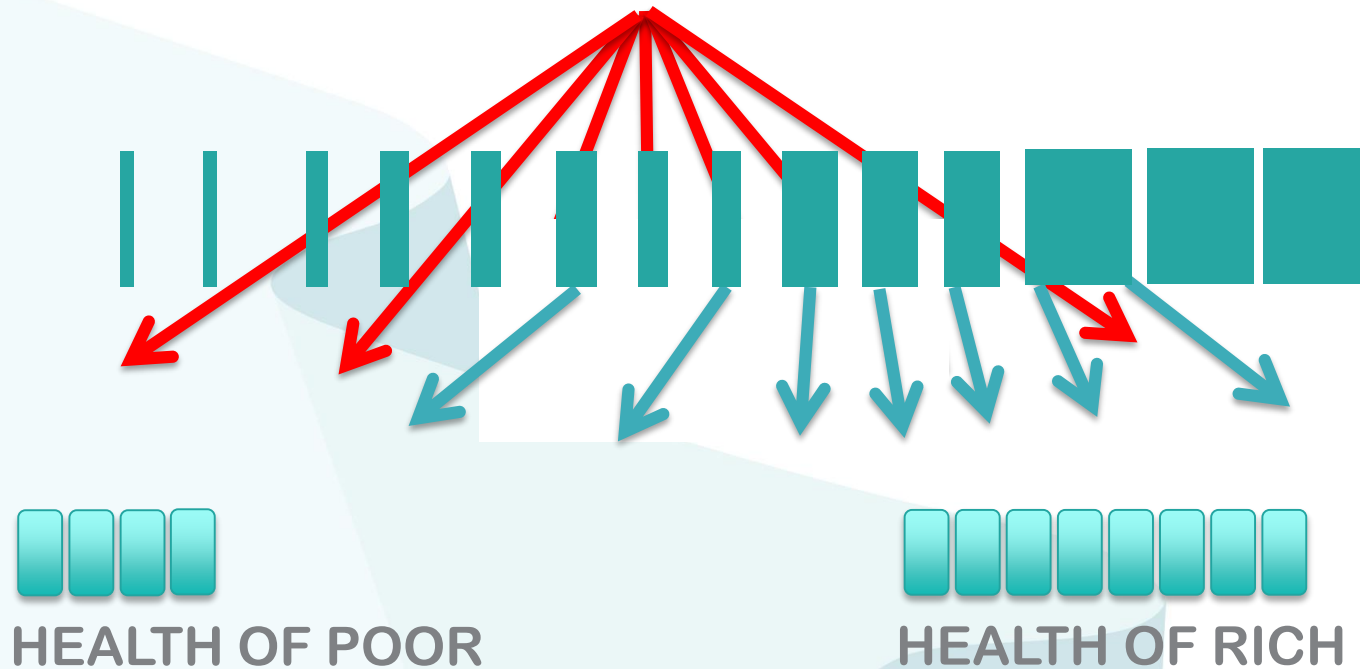
INEQUITY IN ACCESS  
TO CARE



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# Healthcare System Analysis

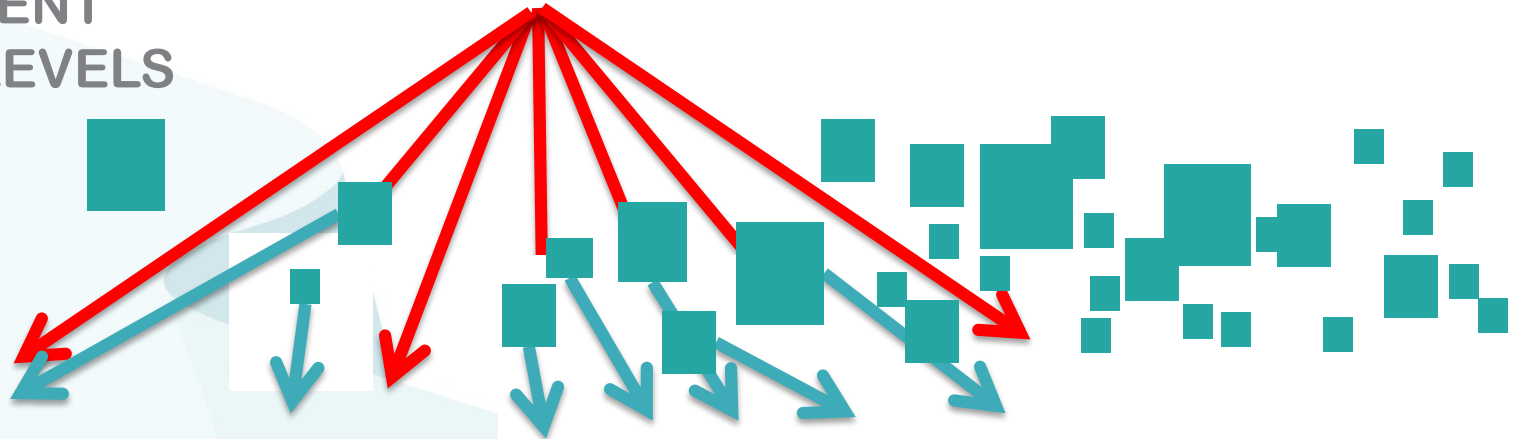
TRIPLE BURDEN OF DISEASE



# Healthcare System Analysis

TRIPLE BURDEN OF DISEASE

DIFFERENT LGUs, LEVELS



HEALTH OF POOR



HEALTH OF RICH



# Healthcare System Analysis

TRIPLE BURDEN OF  
DISEASE



WORKFORCE SHORTAGE & MALDISTRIBUTION  
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INEQUITY IN ACCESS  
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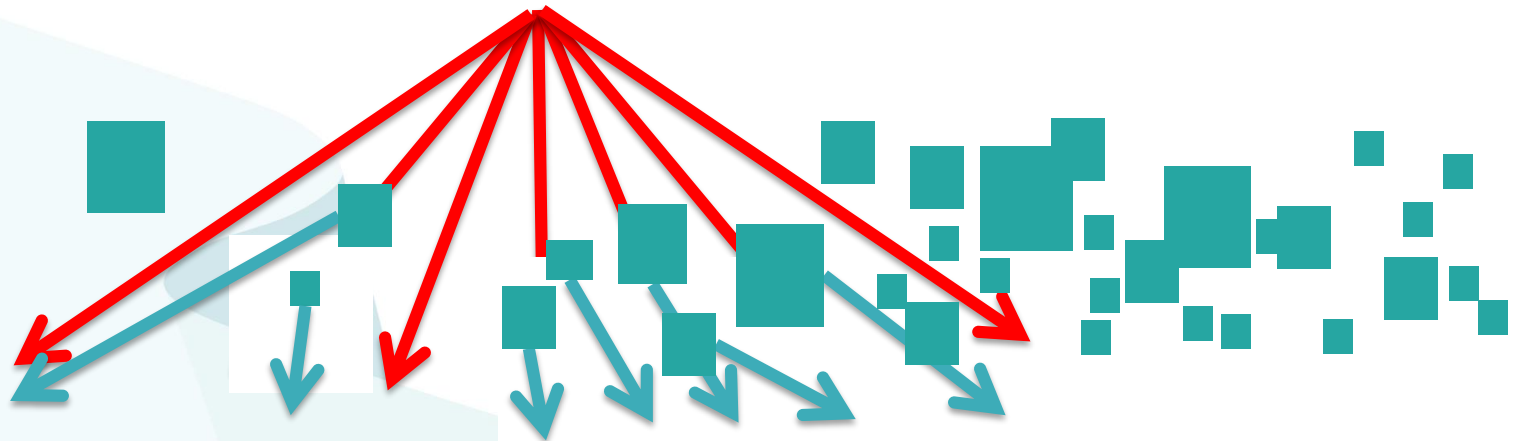


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# Healthcare System Analysis

TRIPLE BURDEN OF DISEASE



HEALTH OF POOR

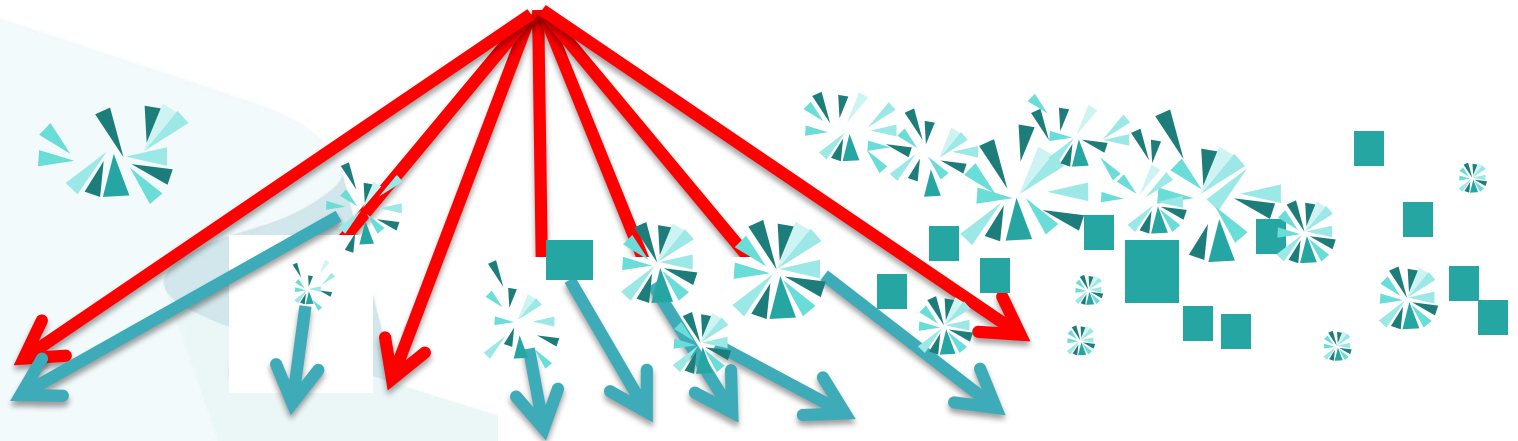


HEALTH OF RICH



# Healthcare System Analysis

TRIPLE BURDEN OF DISEASE



HEALTH OF POOR



HEALTH OF RICH



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# Outline

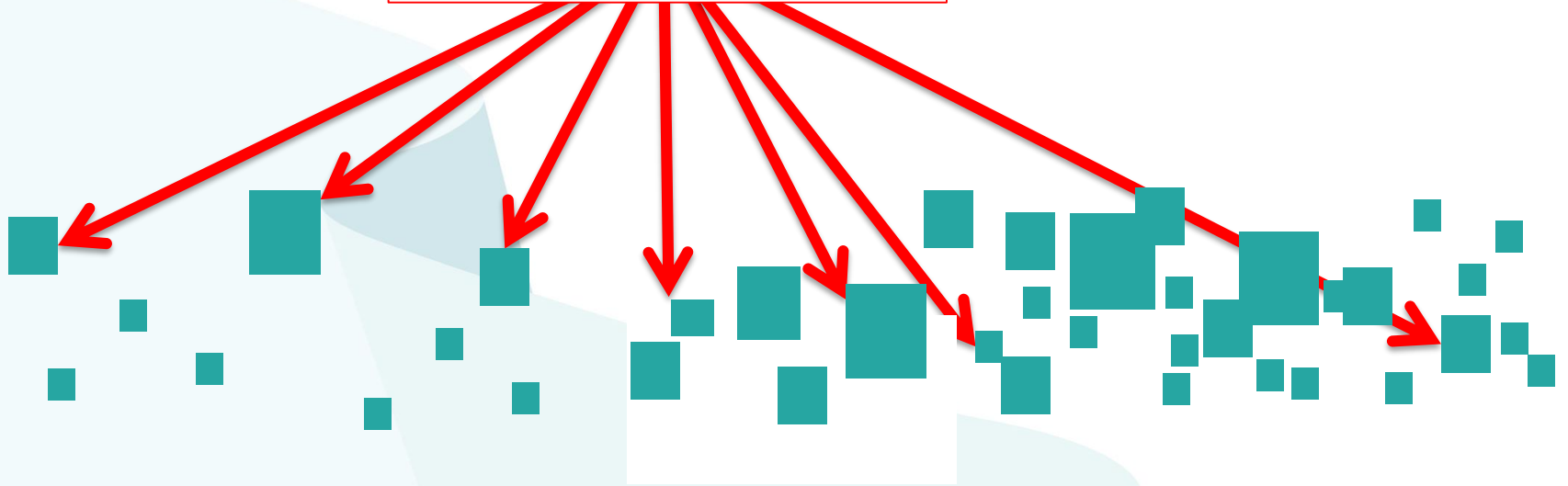
1. Rationale & framework
- 2. Methods & key features**
3. Initial Results
4. Future Plans and Implications



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# Envisioned Primary Care-Oriented Healthcare System

TRIPLE BURDEN OF DISEASE



POPULATION



# Envisioned Primary Care-Oriented Healthcare System

TRIPLE BURDEN OF DISEASE

1°

2°

3°

comprehensive PCB

- pay per service,  
NOT disease packaged

- rich and poor  
NOT lowest quintile only

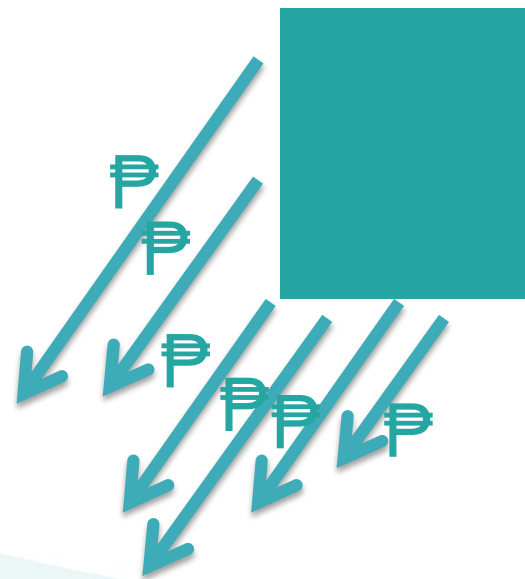
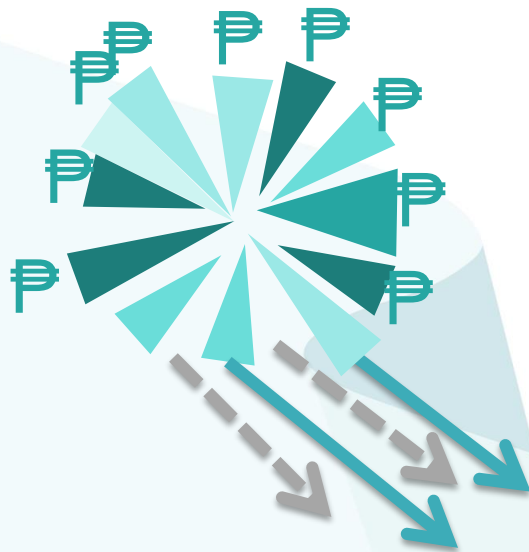


POPULATION



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# Unique features



PATIENTS

A.

Paying for disease packages

B.

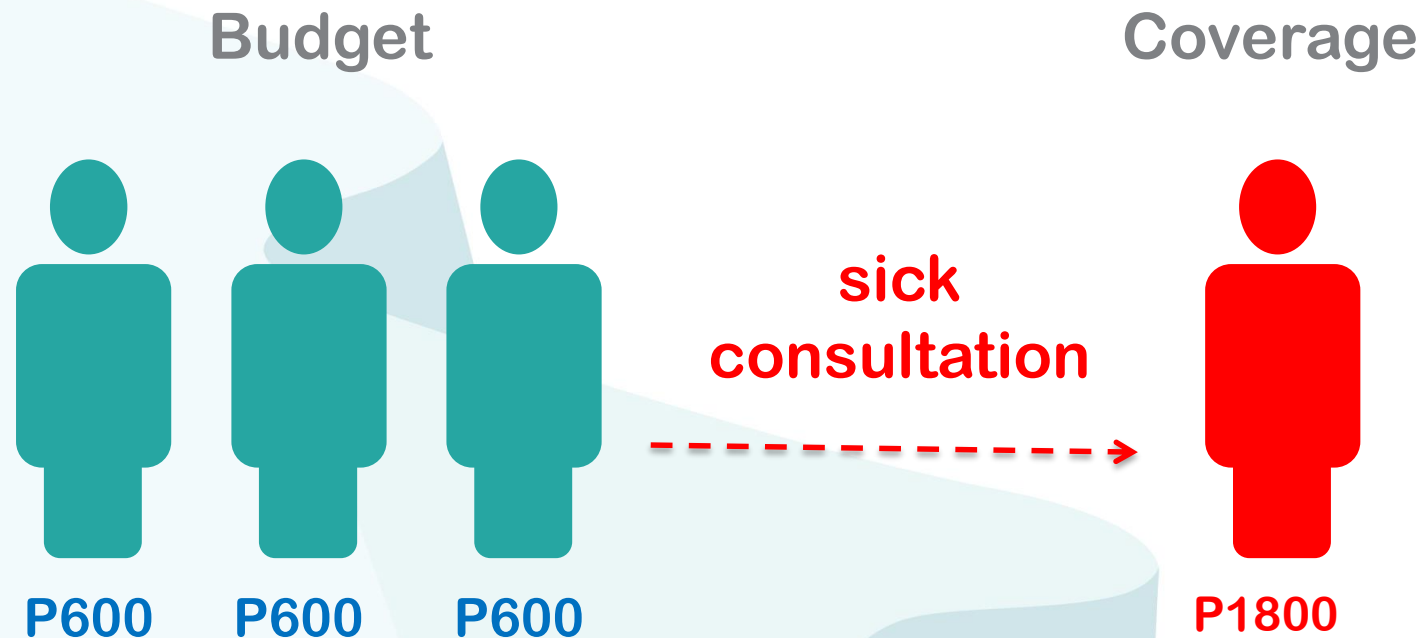
Paying for services



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# Unique features

- Runs on the principle of risk sharing



# Envisioned Primary Care-Oriented Healthcare System



## comprehensive PCB

- pay per service,
- rich and poor

## sustained x 1yr

- 1<sup>st</sup> contact = register, profile
- follow ups = continuing care
- training

## EMR

- coordinated care
- regulation
- monitoring
- training



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**Triage Nurse or Midwife**



Records

EMR

**DOH, PhilHealth**

**LGU**



EMR

**Doctor**

Lab Rx

Med Rx

**DATA**

**BILL**

Cash/Billing



receipt

EMR

receipt



**Pharmacy**

EMR



**Laboratory**

EMR



**Radiology**

EMR



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# Unique features of the Study

- Runs on the principle of risk sharing
- Registration is on consultation
- Efficient check-ups/risk assessment
  - Timing is opportunistic
  - Tests are targeted
- Universal in scope
  - No priority disease
  - No priority test
  - No priority medicine
- Universal in coverage (rich & poor)







**Triage Nurse or Midwife**



Records

EMR

DOH, PhilHealth

LGU

**RECRUIT**  
**RETAIN**

**REGULATE**  
**REASSESS**

**REACH OUT**



EMR

**Doctor**

Lab Rx

Med Rx

DATA

BILL

Cash/Billing

**RETRAIN**



**Pharmacy**

EMR

receipt

EMR

receipt



**Laboratory**

EMR



**Radiology**

EMR

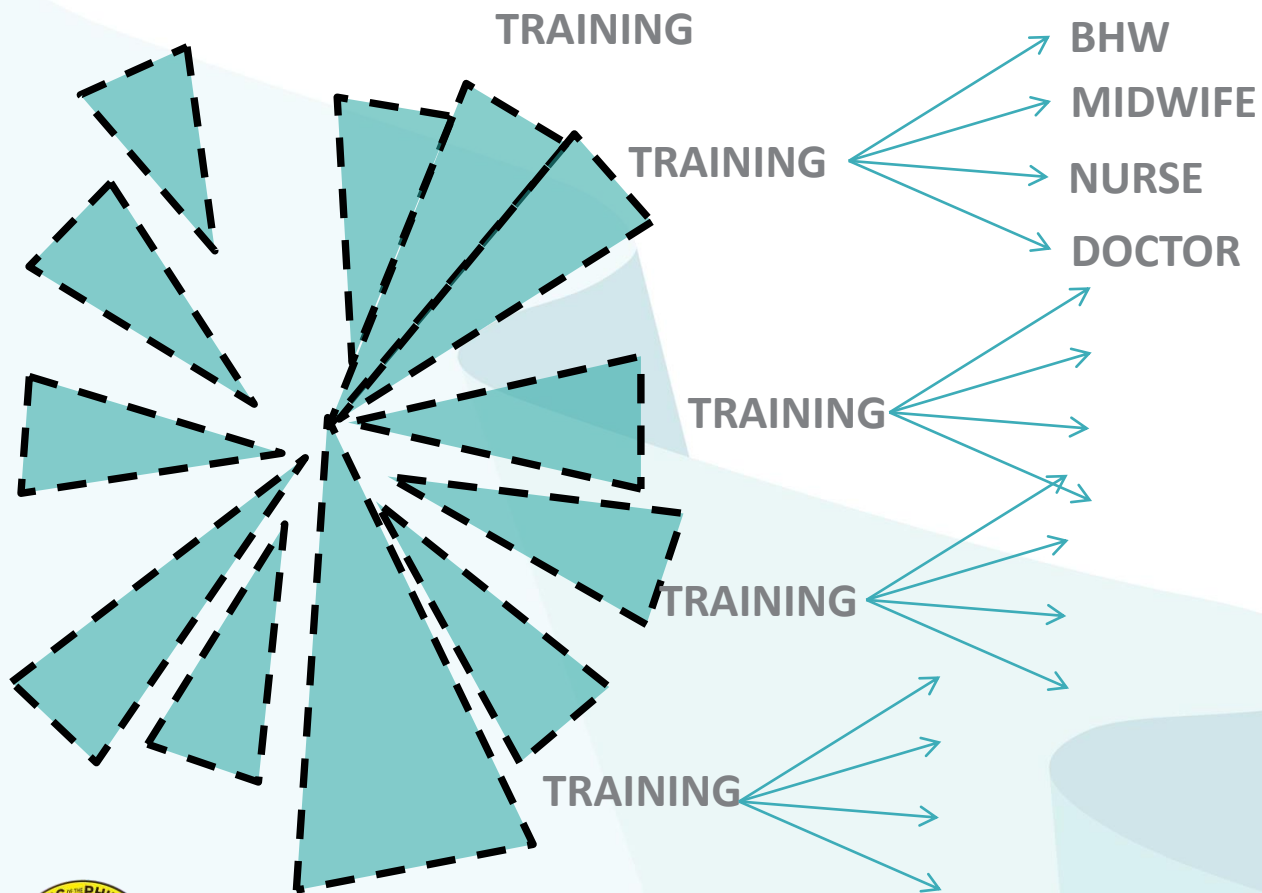


Your Partner



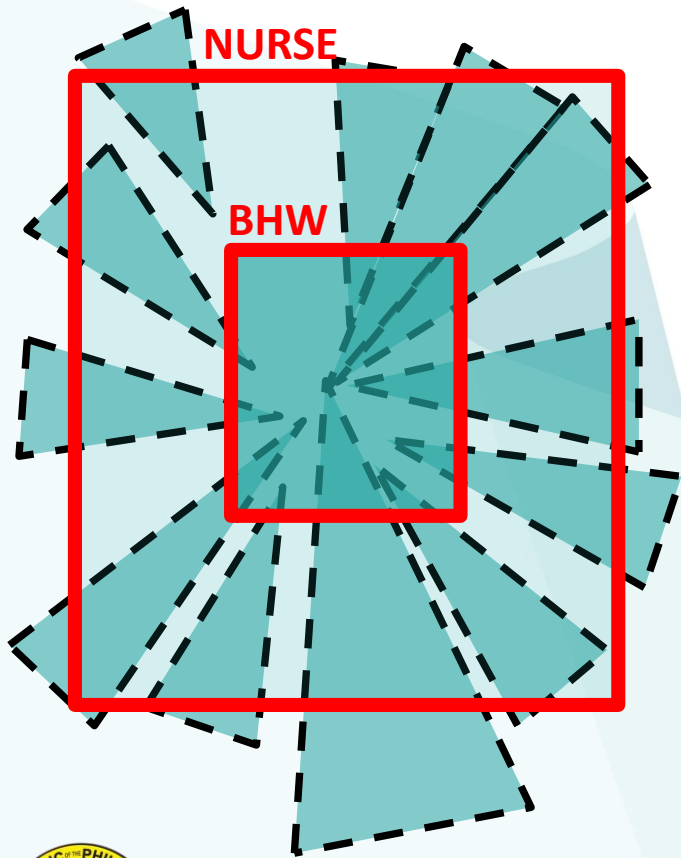
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# In terms of training



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# In terms of training



## BHW ROLE

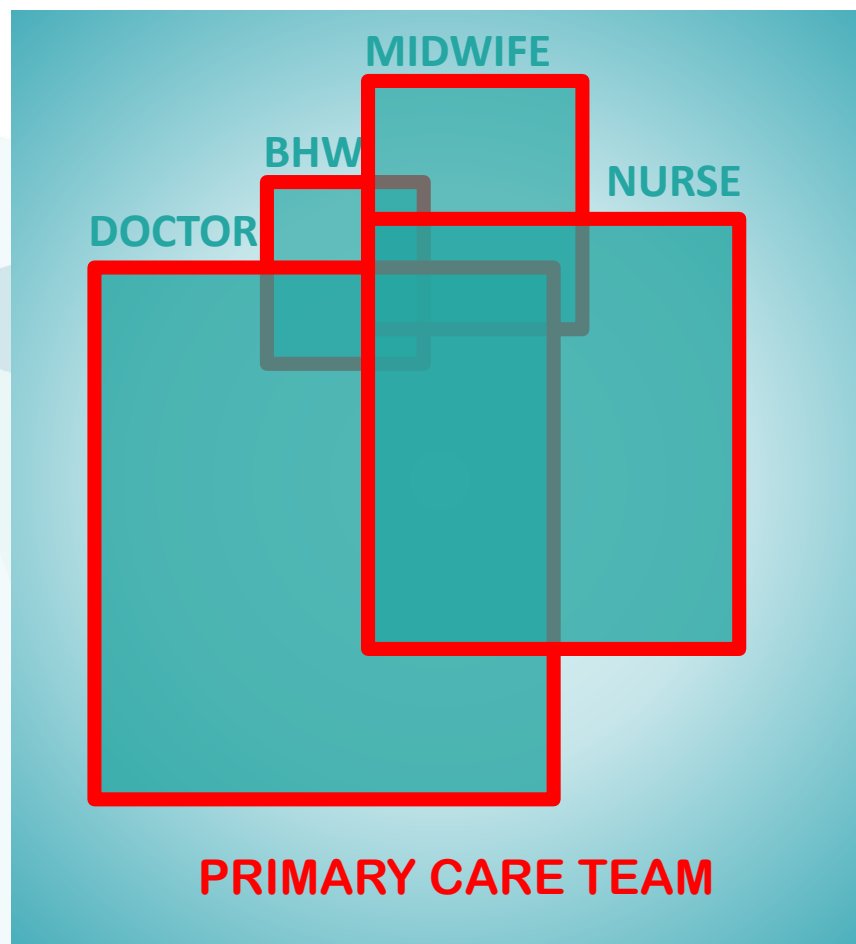
- Skill / Knowledge #1
- Skill / Knowledge #2 ...

## NURSE ROLE

- Skill / Knowledge #1
- Skill / Knowledge #2 ...



# In terms of training



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	<b>STRATEGY</b>	<b>OBJECTIVES</b>
<b>RECRUIT</b>	Motivational workshops Fees for services	(New hires) HCW satisfaction
<b>RETRAIN</b>	Lectures Workshops	Quality of Care HCW Knowledge
<b>RETAIN</b>	Motivational Workshops Fees for services	(Quit rates) HCW satisfaction
<b>REGULATE</b>	Require use of EMR, ICD and Formulary meds	% Compliance
<b>REASSESS</b>	Survey Instruments	Hospitalization OOP payments Utilization Costing
<b>REACH OUT</b>	Brochures, ads, videos Meetings w people/leaders	Patient satisfaction

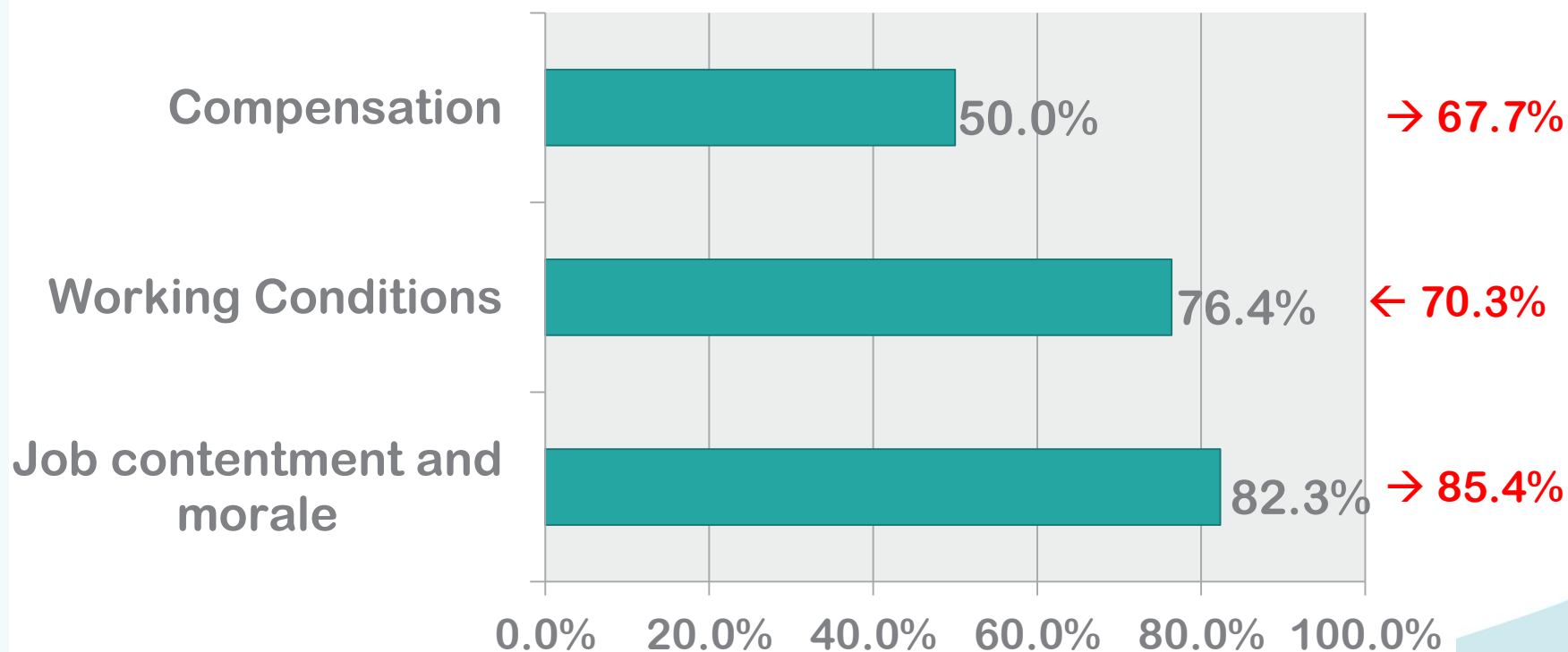
# Outline

1. Rationale & framework
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# HEALTHCARE WORKER SATISFACTION (n=33)



Proportion Assigning scores of 4+



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# HCW KNOWLEDGE (n=11)

## Rank

Pre
1. Adolescent
2. TB
3. Cervical cancer screening
4. NCD
5. Asthma
6. Immunization
7. CV risk – ISH protocol
8. Smoking cessation
9. Breast cancer screening
10. Pedia

Post
1. CV risk – ISH protocol
2. Adolescent
3. NCD
4. Smoking cessation
5. TB
6. Asthma
7. Immunization
8. Cervical cancer screening
9. Breast cancer screening
10. Pedia





# QUALITY OF CARE (N=3207)

Study End

Indicator	Potential Concern	Result
<b>ADULTS</b>		
Hypertension control rate	effectiveness	59.1%
Thiazide use for HTN	underuse/overuse	3.6%
Metformin use for diabetes	underuse	22.8%
Diabetes blood sugar monitoring	underuse	84.1%
Diabetes control rate	effectiveness	76.1%
Recorded smoking history	underuse	1.6%
<b>PEDIATRIC</b>		
Antibiotic use for URTI	overuse	37.6%
Mucolytics for URTI	overuse	2.7%
Montelukast for asthma	overuse	7.6%
Vitamin use	overuse	2.1%
Zinc use for diarrhea	underuse	0%
Smoking history taken (ages 10 to <18 years)	underuse	0%
<b>MIXED (ADOLESCENT AND ADULT)</b>		
Smoking history taken (ages 10 years and older)	underuse	1.4%



## UTILIZATION (%)

$$= \frac{\text{\# who use facility}}{\text{\# who need healthcare}}$$

$$= 8.9\% \rightarrow 52\%$$

## OUT OF POCKET EXPENSES (%)

$$= \frac{\text{OOP expenses}}{\text{total expenses}}$$

$$= 100\% \rightarrow 86\%$$

## HOSPITALIZATION (%)

$$= \frac{\text{\# hospitalized}}{\text{total population}}$$

$$= 15\% \rightarrow 26\%$$



# COSTING AND PRICE

	Q1	Q2	Q3	Q4
--	----	----	----	----

## Utilization - Cumulative number of beneficiaries

Consultations	998	1,974	2,665	<b>3,207</b>
Diagnostics	167	517	886	1,229
Medications	366	913	1,223	1,535

## Cumulative price per service

Consultations	146,200.00	374,400.00	573,400.00	766,400.00
Diagnostics	42,412.00	191,558.95	386,584.45	632,742.95
Medications	123,227.00	393,799.25	594,560.00	811,214.50

**\* Average “price” per patient = P698.74**

**\* Average “cost” per patient = P730.97**



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# Outline

1. Objectives and Strategies
2. Initial Results
3. Future Plans and Implications



# Potential National Issues

1. EMR use and development
  - ✓ software, hardware, and regulatory solutions
2. ICD and Formulary use
  - ✓ software and regulatory solutions
3. Primary Care Training
  - ✓ In-practice (doctors, nurses, midwives, BHWs)
  - ✓ Curricular
5. Workforce / work-hours and utilization
6. Fraud control
  - Eligibility List
  - Single EMR concept
  - Bar code, RFID or Biometrics
  - patient vouchers
  - Random SMS verification



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# ONGOING STUDIES

1. Corporate setting (UP Diliman)  
population = 15,051 P9,000,000
2. Rural setting (Samal, Bataan)  
population = 35,652 P21,000,000
3. GIDA setting (Bulusan, Sorsogon)  
population = 22,000 P13,000,000
4. Urban setting (FamilyDoc, Cavite)



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# REQUEST

1. Corporate setting (UP Diliman)  
population = 15,051
2. Rural setting (Samal, Bataan)  
population = 35,652 P19,000,000
3. GIDA setting (Bulusan, Sorsogon)  
population = 22,000 P11,000,000
4. Urban setting (FamilyDoc, Cavite)







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# THANK YOU!



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# Extra Slides



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# Outline

**1. Healthcare System Analysis**

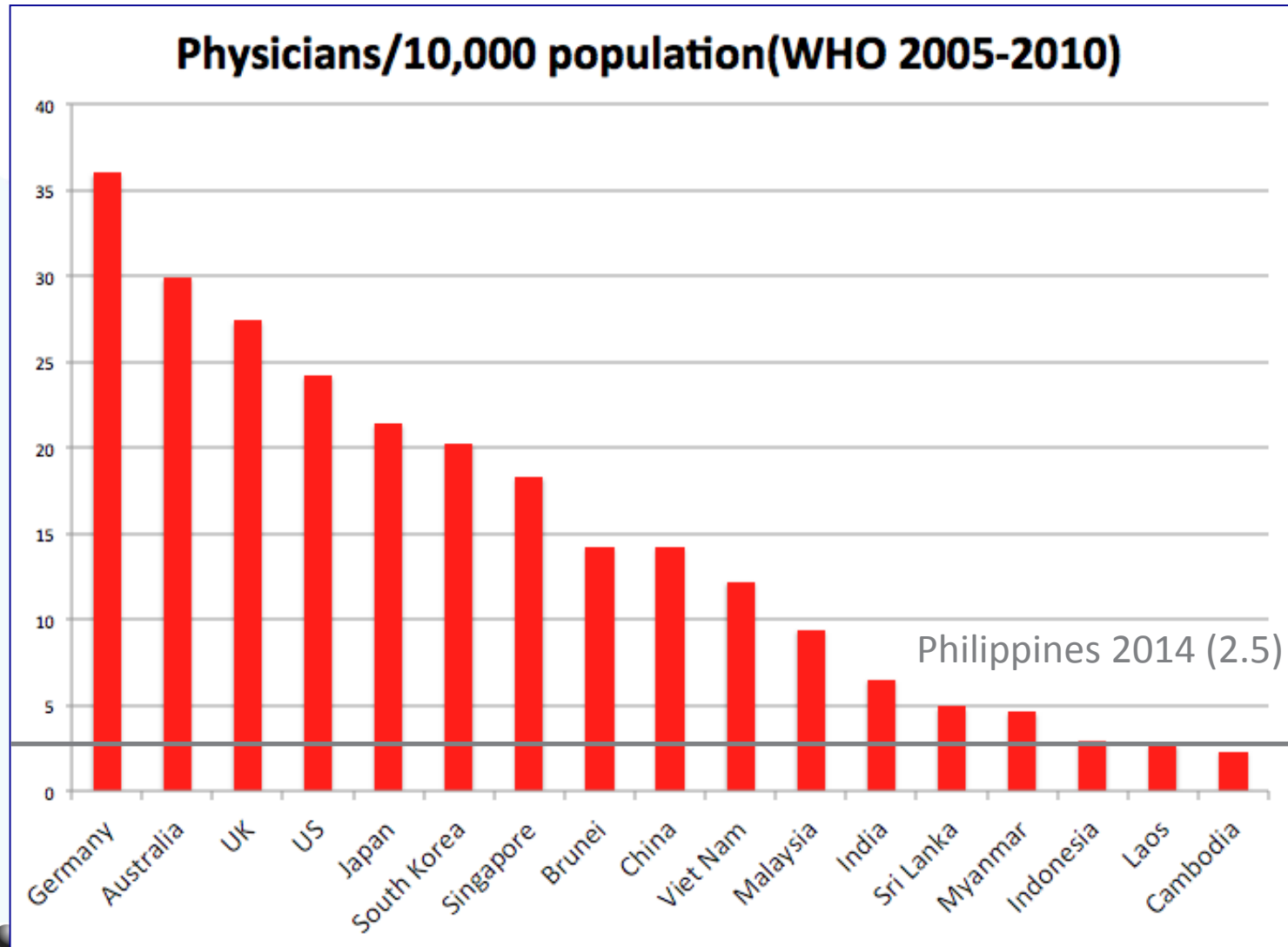
2. What is Primary Care

3. A Roadmap to Primary Care



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# Physicians/10,000 population



HHRDB



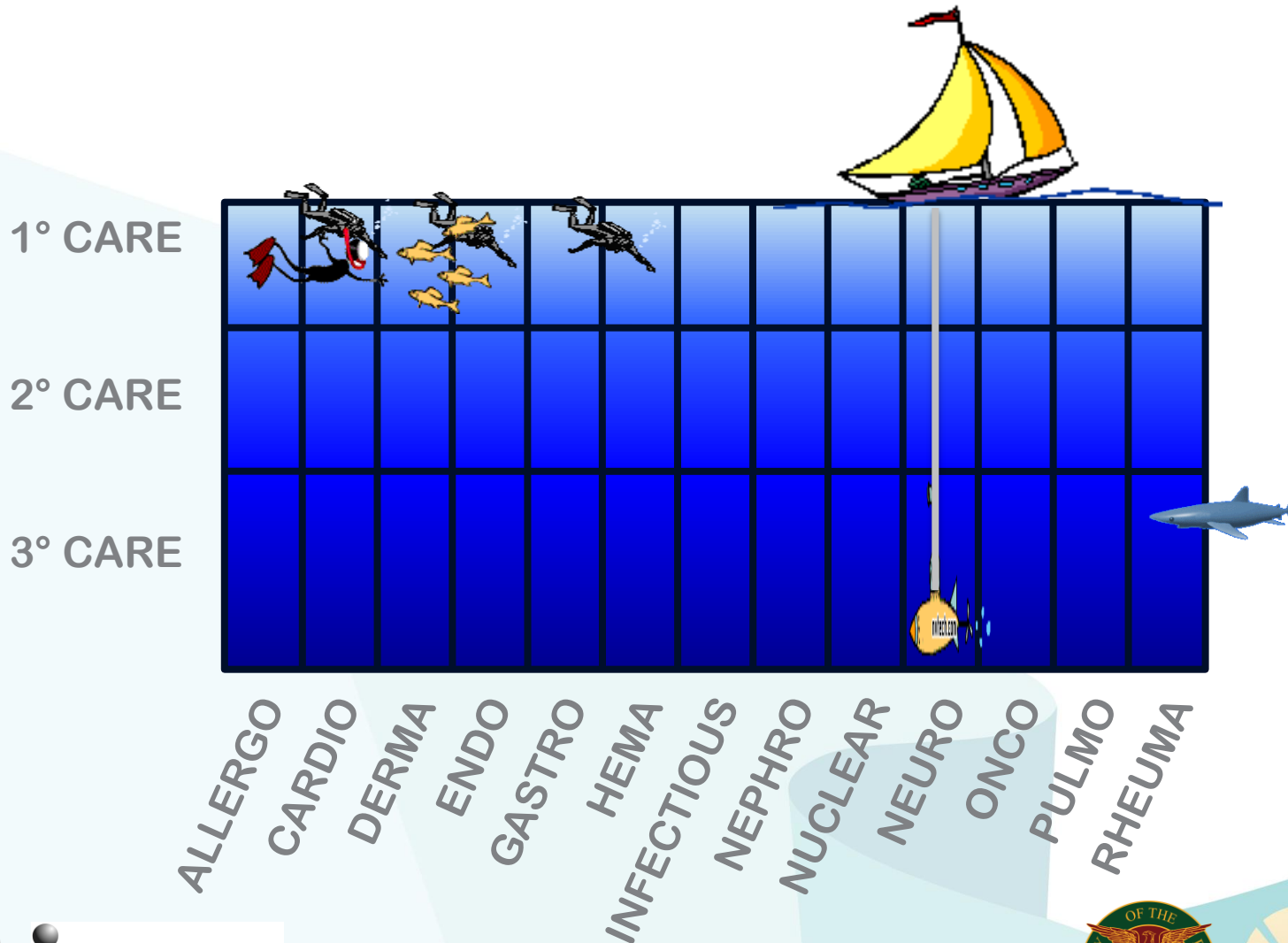
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# Outline

1. Healthcare System Analysis
2. What is Primary Care
3. A Roadmap to Primary Care



# A Structural Definition



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# A Practical Definition

Primary Care is “outpatient” care funded by Social Health Insurance (eg – PhilHealth).

Why do we need it?

1. There are more **outpatient** facilities than **hospitals**;
2. Most diseases need **outpatient** care, NOT **hospitalization**;
3. Patients need **outpatient** care before **hospitalization**;
4. Prevention needs **outpatient** NOT **hospitalization**.



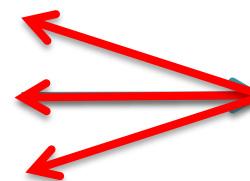
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# Healthcare System Analysis

DOUBLE BURDEN OF DISEASE



WORKFORCE SHORTAGE  
POLICY FRAGMENTATION  
ADMIN. FRAGMENTATION



Primary Care

INEQUITY IN ACCESS TO CARE



INEQUITY IN HEALTH OUTCOMES



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# Outline

1. Healthcare System Analysis
2. What is Primary Care
- 3. A Roadmap to Primary Care**



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# A ROADMAP TO PRIMARY CARE (UPDATES)

RECRUIT

RETRAIN

RETAIN

REGULATE

REASSESS

The importance of primary care needs to be recognized:

- by the government
- by practitioners
- By the people



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# A ROADMAP TO PRIMARY CARE

RECRUIT

RETRAIN

RETAIN

REGULATE

REASSESS

## Short Course Curriculum:

- Infectious Diseases
- Maternal/Child Health
- Non-communicable Disease
- Health System Navigation



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# A ROADMAP TO PRIMARY CARE

RECRUIT

RETRAIN

RETAIN

REGULATE

REASSESS

Why healthcare workers stay<sup>1</sup>

- To serve the country
- To be with their family

Why healthcare workers leave<sup>2</sup>

- Unemployment
- Underemployment
- Misemployment
- Unjust working conditions

<sup>1</sup>Ebesate 2012; <sup>2</sup>Lorenzo 2005



# A ROADMAP TO PRIMARY CARE

RECRUIT

RETRAIN

RETAIN

REGULATE

REASSESS

EMR use

International Classific.of Disease

Use of Formulary

Compliance with Guidelines



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# A ROADMAP TO PRIMARY CARE

RECRUIT

RETRAIN

RETAIN

REGULATE

REASSESS



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1. Caregiver knowledge
2. Quality of Care
3. Health outcomes
4. Utilization!!
5. Out-of-pocket expenses
6. Patient satisfaction
7. Caregiver satisfaction
8. Administrative efficiency



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# Health Care Expenditures and Mortality 5 Year Followup: United States, 1987-92

(age 25 and older)

- if personal doctor is primary care rather than specialist
  - 33% lower cost of care
  - 19% less likely to die\*

\*(after controlling for age, gender, income, insurance, smoking, perceived health (SF-36) and 11 major health conditions)

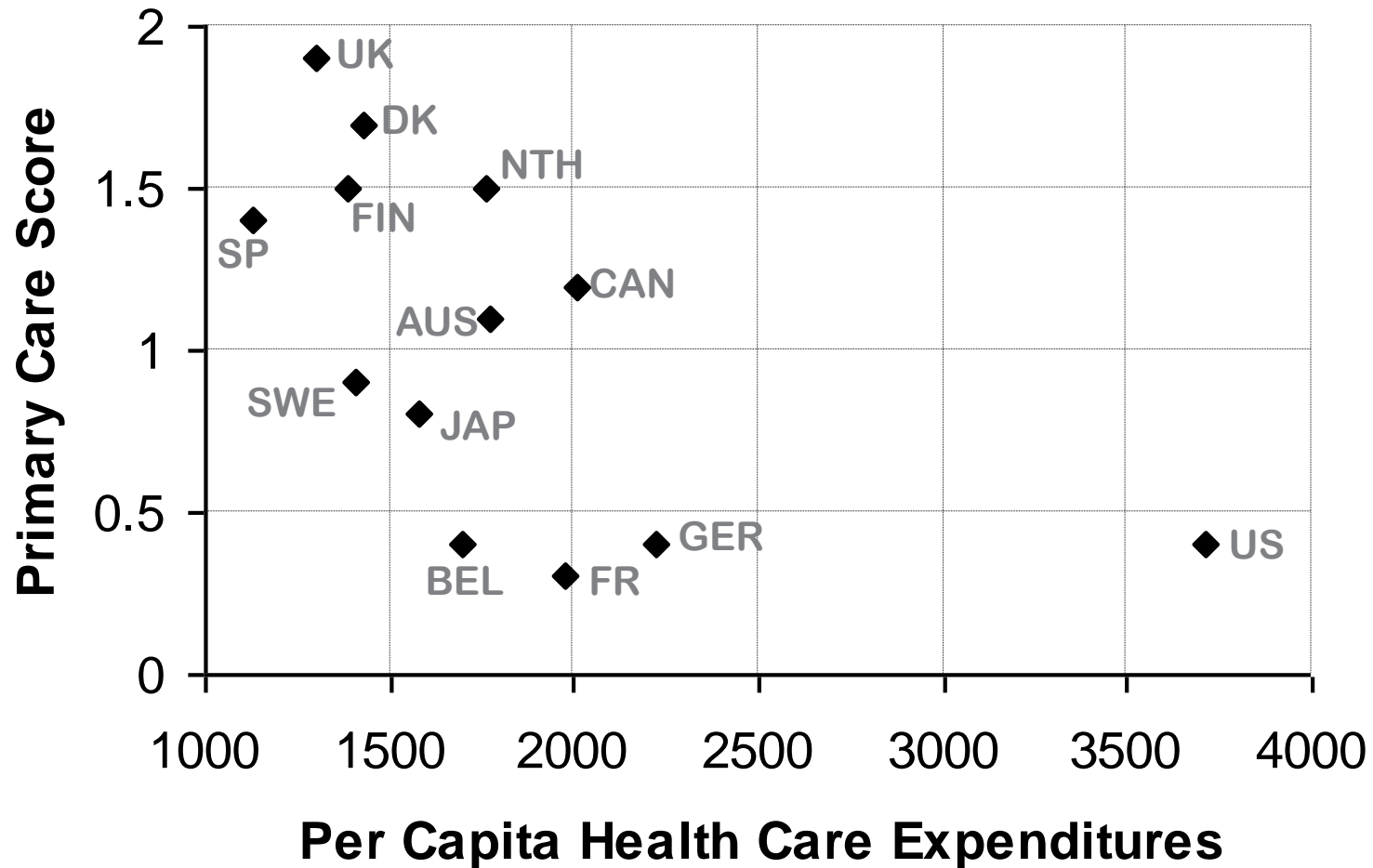


Adapted from Starmer (2004). Primary Care, Health, and Equity [presentation].  
per course lecture. <http://www.pitt.edu/~super7/17011-18001/17361.ppt>



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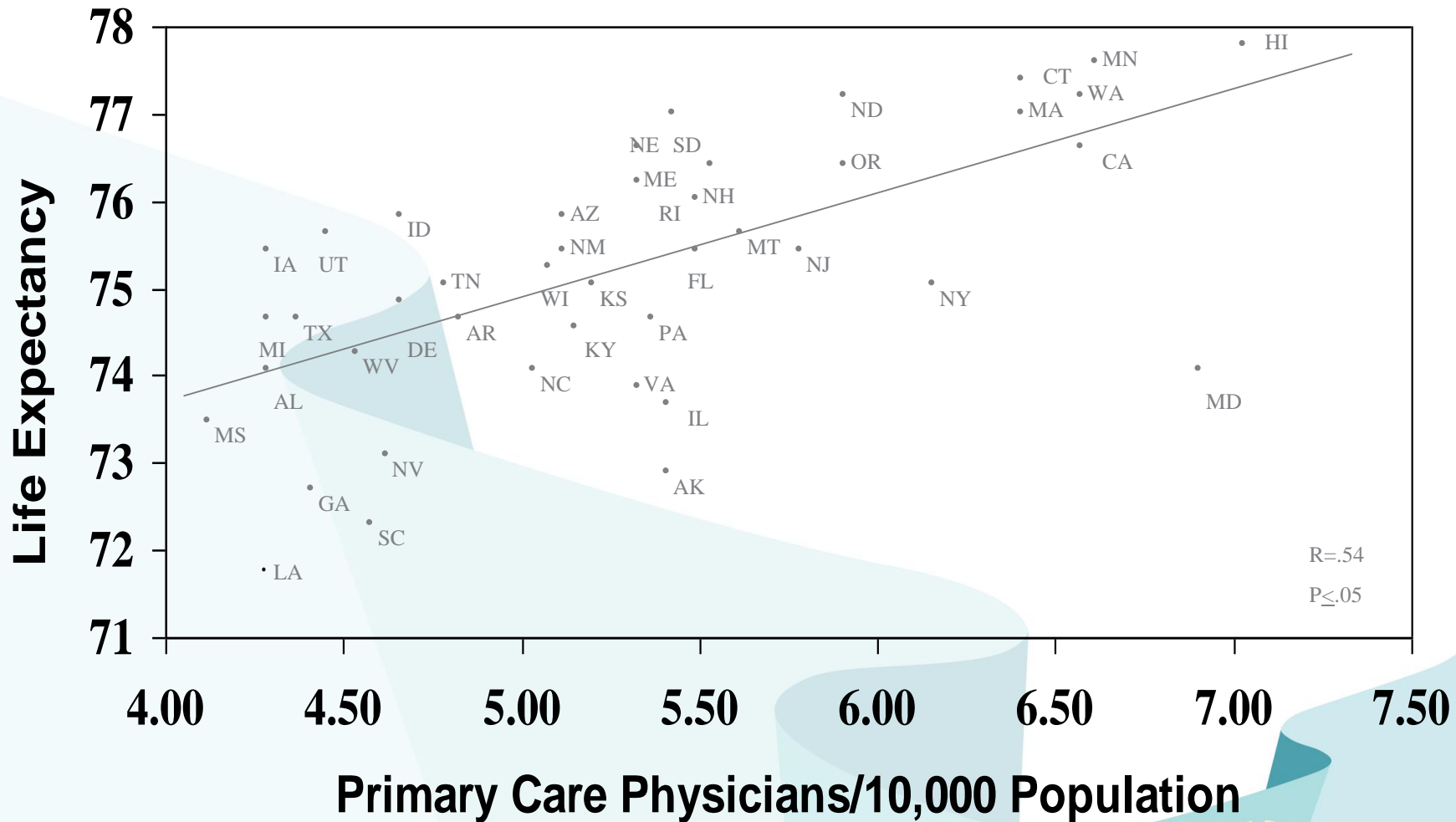
# Primary Care Score vs. Health Care Expenditures, 1997



Based on data in Starfield & Shi, Health Policy 2002; 60:201-18.  
Adapted from Starfield (2004). Primary Care, Health, and Equity [presentation].  
Supercourse lecture. <http://www.pitt.edu/~super7/17011-18001/17361.ppt>



# Primary Care and Life Expectancy (US states)



Adapted from Starfield (2004). Primary Care, Health, and Equity [presentation].  
Supercourse lecture. <http://www.pitt.edu/~super7/17011-18001/17361.ppt>

# Training Programs in Primary Care

