FACILITY-BASED INTERVENTION COSTING FOR THE 48 HIGHEST BURDEN DISEASES IN THE GUARANTEED HEALTH BENEFITS PACKAGE OF THE DEPARTMENT OF HEALTH AND THE PHILIPPINE HEALTH INSURANCE CORPORATION

EpiMetrics, Inc.

Having the cost per disease, as well as individualized cost per bed day per department for hospitals of various characteristics, will help guide policymakers towards both strategic purchasing of healthcare associated goods and services and an eventual shift in Provider Payment Method, if necessary.

OBJECTIVES

To estimate unit costs of various hospital services in a sample of public hospitals across all five major geographic zones in the country (National Capital Region, North Luzon, South Luzon, Visayas and Mindanao).

METHODS



TRAINING COSTING WORKSHOP

A centralized capacity-building training costing workshop to establish partnerships and to obtain buy-in from the various hospitals for them to provide data for the research team.



SERIES OF DATA VALIDATION HOSPITAL VISITS

A series of data validation hospital visits to one institution per hospital level and per geographic zone.



COST ITEMS INCLUDED

All financial, administrative and departmental activities and associated costs were collected. This included all cost items, including:

- 1. personnel costs
- 2. medical supplies
- 3. pharmacy
- 4. laboratory and radiology costs
- 5. administrative costs 6. capital outlay
- 7. depreciation costs, etc.



UNIT COST COMPUTED

- Median unit cost per for key outpatient and ancillary services, surgical procedures
- Median unit cost per bed day for the four major clinical departments (Medicine, Surgery, Pediatrics and Obstetrics-Gynecology)

FINDINGS

MEDIAN UNIT COST PER BED DAY PER DEPARTMENT

MEDICINE Department

PHP 1521.00 PHP 2474.00 PHP 1277.33

SURGERY Department **PEDIATRICS** Department PHP 2760.00 **OB-GYNE** Department

VARIATIONS ACROSS DEPARTMENTS

Due to differences in level of output, condition management complexity and length of stay of confinement.

VARIATIONS ACROSS HOSPITAL LEVELS

Reflect geographical differences in costs, variations in procurement costs and level of efficiency of hospital operations.

MEDIAN UNIT COST FOR VARIOUS ANCILLARY SERVICES

PHP 141.00 PHP 178.00 PHP 857.00 PHP 7,272.00 PHP 634.00

PNEUMONIA

per prescription for the Pharmacy per laboratory test for the Laboratory per imaging procedure for the Radiology per surgical procedure per outpatient visit

11,750.31

PHP 634.00 per visit to Emergency department PHP 835.00 per dental visit



MEDIAN FACILITY-BASED INTERVENTION COSTS PER DISEASE

The costs computed above in order to estimate the cost of treating patients diagnosed with one of the 48 Highest Burden Diseases. These costs were computed per hospital. Shown below are the median costs across the various sample hospitals.

DICENCE	TOTAL COST
DISEASE	TOTAL COST
ISCHEMIC HEART DISEASE	16,285.50
LUWER RESPIRATURY TRACT INFECTION	16,291.00
LOWER RESPIRATORY TRACT INFECTION HEMORRHAGIC STROKE	20,191.00
DIABETES TUBERCULOSIS	16,285.50 16,291.00 20,191.00 19,957.00 7,530.00 12,280.00
TURFRCULOSIS	7 530 00
LOW BACK PAIN	12 280 00
ACTHMA	2 18/1 00
	ACE 21 024 00
CULONATAL CEDCIC	ASE 21,334.00
NEUNATAL SERSIS	19,637.00
IRUN DEFICIENCY ANEMIA	4,253.00
CONGENITAL HEART DISEASE	26,326.00
DIARRHEA	15,176.00
MAJOR DEPRESSIVE DISORDER	22.092.00
NEONATAL ENCEPHALOPATHY	11 654 99
ISCHEMIC STROKE	18,685,30
CHBUNIC RIDNES DISEVSE	35 140 00
THE CANCED	40 002 00
	40,303.00
WOOD TENOTIVE HEADT DIOLAGE	24,355.50
HALFKIENZIAF HEAKI DIZEVZE	15,764.00
LOW BACK PAIN ASTHMA CHRONIC OBSTRUCTIVE PULMONARY DISE NEONATAL SEPSIS IRON DEFICIENCY ANEMIA CONGENITAL HEART DISEASE DIARRHEA MAJOR DEPRESSIVE DISORDER NEONATAL ENCEPHALOPATHY ISCHEMIC STROKE CHRONIC KIDNEY DISEASE LUNG CANCER ASSAULT HYPERTENSIVE HEART DISEASE NECK PAIN ANXIETY BREAST CANCER MOTOR INJURIES PEPTIC ULCER DISEASE	34,352.00
ANXIETY	15,761.00
BREAST CANCER	34.352.00
MOTOR INJURIES	5.612.00
PEPTIC ULCER DISEASE	60,612.00
REFRACTIVE ERROR	1,832.00
SCHIZOPHRENIA	9,002.00
COLORECTAL CANCER	20 004 50
COLUNECTAL GANGEN	00,004.00
FALLS	23,122.00
ALZHEIMER'S DISEASE RHEUMATIC HEART DISEASE	3,899.00
KHEUMATIC HEAKT DISEASE	25,378.00
DERMATITIS	8,800.00 38,804.50 23,122.50 3,899.00 25,378.00 7,455.00
PROTEIN ENERGY MALNUTRITION	11,286.00
TYPHOID	24,938.00
TRICHIURIASIS	3,689.00
ASTHMA CHRONIC OBSTRUCTIVE PULMONARY DISE NEONATAL SEPSIS IRON DEFICIENCY ANEMIA CONGENITAL HEART DISEASE DIARRHEA MAJOR DEPRESSIVE DISORDER NEONATAL ENCEPHALOPATHY ISCHEMIC STROKE CHRONIC KIDNEY DISEASE LUNG CANCER ASSAULT HYPERTENSIVE HEART DISEASE NECK PAIN ANXIETY BREAST CANCER MOTOR INJURIES PEPTIC ULCER DISEASE REFRACTIVE ERROR SCHIZOPHRENIA COLORECTAL CANCER FALLS ALZHEIMER'S DISEASE RHEUMATIC HEART DISEASE DERMATITIS PROTEIN ENERGY MALNUTRITION TYPHOID TRICHIURIASIS AMPHETAMINE BIPOLAR DISORDER EPILEPSY LEUKEMIA MEASLES	11,286.00 24,938.00 3,689.00 4,398.00 17,219.00
BIPOLAR DISORDER	17.219.00
EPILEPSY	10,444.50
LEUKEMIA	44 121 00
MEASLES	44,121.00 22,888.30
MILHOLEO	22,000.30

CONCLUSION



In the continuum of research efforts to identify the most burdensome diseases, their cost-effective facility-based interventions and corresponding resource requirements, this study identified the associated costs in treating these diseases.

RECOMMENDATION

The study recommends to PhilHealth and the Department of Health to explore the development of a consistent system of gathering costs from hospitals.

POLICY LESSONS



- Regulation, standardization and harmonization of records and informations systems
- Development of a Universal Cost Accounting System
- Identify cost items to be covered by payors