

COSTING BENEFIT PACKAGES FOR CHILDREN WITH DISABILITIES IN THE PHILIPPINES

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BACKGROUND

The United Nations, in the Convention on the Rights of the Child (1992) and the Convention on the Rights of Persons with Disabilities (PWDs) (2006), asserted children with disabilities (CWDs) rights to special care and called for timely provision of assistive devices and technologies. In the Philippines, the Magna Carta for Disabled Persons (RA 7277) and the Revised National Policy on Strengthening the Health and Wellness Program for PWDs (DOH AO 2015-0004) are aligned with these global efforts. However, programs directed especially for CWDs and a financing mechanism to address their needs are still lacking. Among Filipino CWDs that require assistive devices, estimates show that 95% have unmet needs for such technology. Evidence supports that early recognition of disability and timely intervention with assistive technology and rehabilitation can improve functionality and participation in society, increasing the chances of CWDs to lead productive and independent lives.

The National Health Insurance of the Philippines 'PhilHealth' is mandated to ensure that Filipinos have access to health care without suffering financial hardship. In partnership with the United Nations Children's Fund Philippines and Physicians for Peace, PhilHealth has developed special benefits to improve equitable access to quality assistive technology and rehabilitation services for CWDs, specifically for the hearing, visually and mobility impaired children, and the developmentally disabled. One critical component in benefit development was the proper costing of cost-effective interventions, covering services from assessment, provision of appropriate devices, and rehabilitation in order to establish package rates.

OBJECTIVE

To describe the costing process employed to develop payment rates for PhilHealth's benefit packages for CWDs.

METHODOLOGY

Perspective

A provider perspective was taken considering all costs incurred by the health care institution to deliver the necessary care for each category of disability (hearing-, visual-, and mobility impairment, and developmental disability) (JLN, 2014). All cost items relevant to the payment mechanism were accounted for, including personnel, drugs and medical supplies, utilities, and capital cost items such as medical equipment that can be assigned to the specific treatment. Costs were generated for each individual service or package of services being provided. All costs were computed in Philippine Peso (PHP).

Measurement and valuation of cost items

Clinical pathways were developed for each category of disability, based on existing clinical practice guidelines and input from local medical experts. A normative costing methodology was employed to cost each package, using a bottom-up approach for all direct costs and a top-down approach for indirect costs.

A facility survey was implemented for all four disabilities categories to collect information on existing practices of services, remuneration of health professionals and other personnel, facility expenses, number of patients seen, and information on medical equipment. The survey was implemented in both government and private facilities across the country's three main island groups, Luzon, Visayas, and Mindanao. Supplier costs were obtained for assistive devices. Cost data on laboratory tests were taken from the 2015 laboratory and diagnostic fees database of the Philippine Department of Health (DOH) Pharmaceutical Division. The data collected were used to calculate unit costs per service (Table 1). For each disability, costs were assigned to four main cost categories: diagnostics, rehabilitation, assistive device, and indirect costs.

Table 1. Computation of cost items

Item Type	Cost Data	Unit	Formula
Equipment use	Cost per use	Php per use	$\frac{\text{Purchase price}}{\text{Useful life in years} \times \text{Yearly utilization}}$
Diagnostic fees	Laboratory charge	Php per test	MEDIAN(Laboratory test fee)
Assistive device	Cost per item	Php per item	MINIMUM(Purchase price)
Professional fee	Cost per session or consultation	Php per minute	$\frac{\text{Monthly salary}}{\text{Days per month} \times \text{Hours per day} \times 60}$

RESULTS

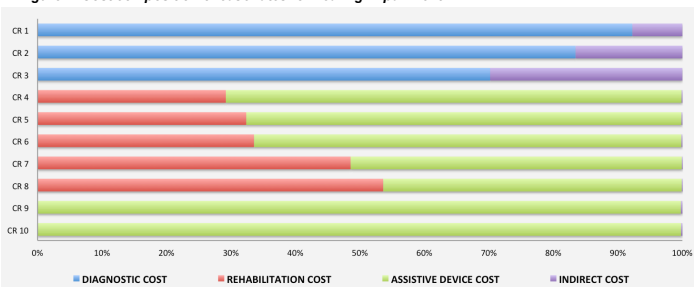
Package prototype for hearing impairment

The case rates for hearing impairment were categorized by severity of hearing loss and divided into age groups due to the different type of diagnostic services each age group will require (Table 2). The distribution of the different cost categories per case rate is illustrated in Figure 1. The main driver for most hearing impairment case rates is the cost of the assistive device, which comprises hearing aid together with the required set of batteries and earmolds. Rehabilitation services, comprised of speech evaluation and speech therapy, are a one-off benefit provided for those with hearing impairment. Children with moderate hearing impairment are covered for 52 speech therapy sessions to be given over a span of one year whereas children with severe to profound hearing impairment are covered for 156 sessions to be given over a span of three years. Those with moderate and severe to profound hearing loss are eligible for a hearing aid. The child will be eligible for a replacement case rate (9 or 10), which includes the hearing aid, earmolds and batteries, every five years until the age of 18.

Table 2: Proposed case rates for hearing impairment

PACKAGE	COST (PHP)
CR 1 Diagnostics for 0 to <3 years old	1,239
CR 2 Diagnostics for 3 to <6 years old	580
CR 3 Diagnostics for 6 to 18 years old	322
CR 4 Moderate Hearing Loss, 0 to <3 years old	75,619
CR 5 Moderate Hearing Loss, 3 to <6 years old	68,212
CR 6 Moderate Hearing Loss, 6 to 18 years old	65,744
CR 7 Severe to Profound Hearing Loss, 0 to <3	130,564
CR 8 Severe to Profound Hearing Loss, 3 to <6	118,220
CR 9 Moderate Hearing Loss replacement: 5 to 18	43,670
CR 10 Severe to Profound Hearing Loss replacement: 5 to 18 years old	48,670

Figure 1: Cost composition of case rates for hearing impairment



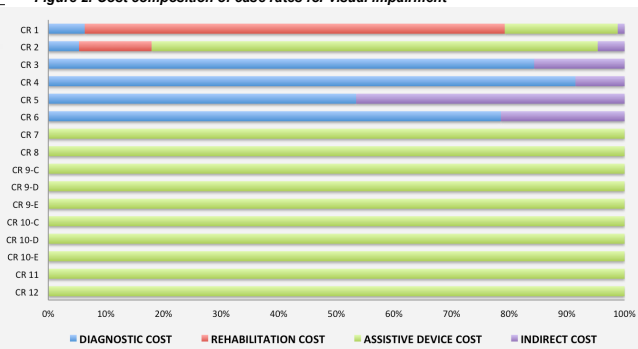
Package prototype for visual impairment

Case rates were categorized by severity of visual impairment (Table 3). The different permutations of optical devices are based on their power (high power [HP] or low power [LP]) and type of material. Case rates 1 and 2 of visual impairment comprise a mix of diagnostics, assistive device (tablet or smartphone) and rehabilitation costs (Fig. 2). The rest of the case rates are either based on diagnostics and indirect costs or solely on assistive device cost. Each of the three types of assistive devices has their eligibility requirement based on the categories of visual impairment. All categories of visual impairment are eligible for the electronic aid, which can be replaced every three years using case rate 7. Categories 1, 2, 3 and 4 visually impaired patients are eligible for one optical assistive device (case rates 9 or 10), depending on the health professional's assessment and the child's needs.

Table 3. Proposed case rates for visual impairment

PACKAGE	COST (PHP)
CR 1 Categories 1, 2, 3, 4 Visual Impairment	30,598
CR 2 Category 5 Visual Impairment	7,750
CR 3 Yearly Diagnostics for Categories 1, 2, 3 and 4: Stable	2,295
CR 4 Yearly Diagnostics for Categories 1, 2, 3 and 4: Progressive	4,230
CR 5 Yearly Diagnostics for Category 5	773
CR 6 Functional Vision Assessment	1,677
CR 7 Electronic Aid Replacement	6,000
CR 8 White cane	1,000
CR 9-C LP Distance: Single Vision, Polycarbonate	5,156
CR 9-D LP Distance: Single Vision, Photochromic	8,906
CR 9-E LP Distance: Single Vision, CFL Colored Filter	7,436
CR 10-C HP Distance: Single Vision, Polycarbonate	9,656
CR 10-D HP Distance: Single Vision, Photochromic	15,156
CR 10-E HP Distance: Single Vision, CFL Colored Filter	17,156
CR 11 Colored Filter	2,936
CR 12 Ocular Prosthesis for Category 5	20,250

Figure 2: Cost composition of case rates for visual impairment



Results for proposed package prototypes for mobility impairment and developmental disability can be made available upon request.

CONCLUSION AND LESSONS LEARNED

Access to assistive technology and rehabilitation services is critical in improving functionality among CWDs, enabling inclusion and development to become productive citizens. Case rates for different permutations of four disability categories were generated using a hybrid of bottom-up and top-down costing. The costing exercise followed an evidence-informed and transparent process, supported by continuous stakeholder and expert consultation and validation. To assure the sustainability of benefit provision through PhilHealth, costing of interventions was subjected to actuarial analysis to evaluate financial feasibility. However, bottlenecks encountered during data collection highlight the need for a repository for administrative hospital data. Bases for medical professional fees warrant more exploration given that some pathways of care comprise mainly of medical professional services.

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