ORIGINAL ARTICLE

Qualitative Analysis of Operational Deliverables of the PGH-Child Protection Unit and Child Protection Network in Advancing the Care Continuum for Child Maltreatment: A Roadmap for Setup and Evaluation

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ABSTRACT

Objective. Our goal is to identify an operational roadmap of core elements in the set-up of the Philippines General Hospital Child Protection Unit (PGH-CPU) established in 1997, and Child Protection Network (CPN) established in 2002. This roadmap will guide future improvement needs for PGH-CPU and CPN and could help accelerate the set-up of future child protection units or networks.

Methods. Using the 5 pillars of the Care Continuum for Child Maltreatment for categorization of deliverables — multidisciplinary intervention, training, governance, research/publication, and prevention — we identified operational deliverables (excluding patient numbers and outcomes) of the PGH-CPU and CPN. These were qualitatively analyzed to identify trends across the past 20-years and along 5 pillars of the Care Continuum.

Results. Identification and qualitative analyses of documented deliverables reveal pillar-specific and time-dependent trends across 5-year periods. This trend analysis identified the core elements central to the set-up of a CPU and reveal an operational roadmap in the set-up of CPUs in resource-constrained settings.

Conclusions. Case study review and qualitative analyses identify core elements that comprise a roadmap for need-based prioritization in the set-up of CPUs/CPNs towards a comprehensive care continuum for child maltreatment. The 20-year experience in a developing nation context validates the roadmap.

Keywords: care continuum, child protection, qualitative analysis

INTRODUCTION

Child abuse affects one billion children worldwide with medico-social consequences exacerbated where health care resources are constrained by poverty, suboptimal governmental and social infrastructure, and/or conflict.[1] Child protection is a recognized human right of children codified in the United Nations Convention on Rights of the Child[2] and a goal in the United Nations Agenda for Sustainable Development to end all forms of violence against children.[3] Towards this agenda, the establishment of services and institutional infrastructure for child protection is key. Advancing this agenda, analysis of existing child protection

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services and infrastructure becomes imperative to identify core elements of a potential roadmap as to how to operationally set up a child protection service unit and/or network in high-risk areas for child abuse and constrained resources. Sharing this information could/would help accelerate progress for child protection.[4]

The mandate for institutional infrastructure for child protection services takes greater meaning as the first national study on Violence Against Children (VAC) in the Philippines by the Council for the Welfare of Children (2016) revealed that three out of 5 Filipino children were physically abused (66.3%), psychologically abused (62.8%), and bullied (65%), with almost 1 in 5 children have experienced sexual abuse (21.5%).[5] Recognized as a major problem with long term health and economic consequences, a study in the East Asia and Pacific region estimated that violence against children costs the region 2% of its annual GDP, and that sexual violence alone costs US$39.9 billion a year, a total that reflects only those costs related to health and health risk behavior outcomes.[6,7]

Although prospective studies will be needed, as a first step, retrospective case study analyses lay the groundwork for designing and integrating prospective longitudinal analyses in the future. Here, we report on the review of the establishment of the Philippines General Hospital Child Protection Unit (PGH-CPU) and the Child Protection Network (CPN) with 20 years of on-the-ground operations and experience.

In brief — the CPU and CPN context: right place, right time, right people

The PGH-CPU was established more than 20 years ago in 1997, initiated by the philanthropic vision at the Advisory Board Foundation (ABF), now CityBridge Foundation (CBF). ABF-fellows conducted a study on street children in Manila which identified the problem that most street children were physically or sexually abused. A full framework analysis was then spearheaded by DGB and VLMH at the Advisory Board Foundation, in consultation with Child Abuse Pediatrics experts at Rady Children's Hospital, University of California San Diego and Boston Children's Hospital, Harvard Medical School. Assessment of needs, resources, and strategic multidisciplinary partners was done in consultation with different hospital Directors, and the Chancellor of the University of the Philippines Manila System. This was then validated by consultation with NGOs, lead government agencies, and workers on the frontlines.

This led to the strategic prioritization in 1997 of the establishment of a 24/7 around-the-clock hospital-based child protection unit to provide integrated medical care and interdisciplinary resources for children who were abused and their families. This prioritization complemented Republic Act No 7610 *("An Act Providing for Stronger Deterrence and Special Protection Against Child Abuse, Exploitation, and Discrimination, Providing Penalties for Its Violation and Other Purposes) passed on June 17, 1992.* The establishment of nationwide child protection units in the Philippines was a high unmet need. The health care delivery system was chosen as the gateway for the provision of multidisciplinary care.

The concept for integrated medical care was placed into the context of Prevention, Training, and Research which led to the selection of a governmental non-profit hospital with an integrated academic medical school and hospital. The establishment of the PGH-CPU (Philippine General Hospital-Child Protection Unit) was facilitated by the collaboration and support of the Chancellor and Vice-Chancellor of the University of the Philippines (UP) Manila System, Dean of the UP College of Medicine, Chair of the PGH Department of Pediatrics, Director of PGH, Cabinet Secretaries of the Philippines Department of Social Welfare and Development (DSWD) and Department of Justice (DOJ), and Chancellor of the Philippines Judicial Academy (PHILJA). Operationalization and success of the PGH-CPU were driven by the dedication of the PGH-CPU founding Director, co-directors, personnel, ABF/CBF directors, international fellows and program managers, clinical and scientific advisors, multidisciplinary consultants, and partners.

The CPN, responsible for the establishment of CPUs nationwide towards the common vision of reducing child abuse and neglect and increasing accessibility to child protection services in the Philippines, was established in 2002. The CPN was established out of recognition of the need and the earned credibility of PGH-CPU in collaboration with multiple multidisciplinary partnerships over five years from 1997 to 2002. CPN establishment was facilitated by seed funding initiatives by the former Advisory Board Foundation (now CityBridge Foundation), and via critical institutional support of the Secretary of the Department of Health (DOH) of the Philippines, Secretary of the Department of Justice, Chancellor of the Philippines Judicial Academy (PHILJA), and medical leadership of the Philippines Pediatric Society (PPS) and Philippines Ambulatory Pediatrics Association (PAPA).

In retrospect, the PGH-CPU and CPN embody the fruition of vision into opportunity and success. Operationalization was facilitated by a 'right place, right time, right people' scenario with the convergence of recognition of need, readiness of multi-disciplinary expertise support of institutional leaders, tactical available logistics, and most importantly, the shared spirit of generosity by all those involved. Recognition of efforts by all could never be enough. Recognition of the leadership and dedication of the full-time Director of the PGH-CPU and CPN, and corresponding staff will never be enough.

METHODS

To perform our qualitative analysis of the PGH-CPU and CPN set-up to gain insight into core elements and strategies for operationalization, we first identified

documented deliverables accomplished by the PGH-CPU and CPN. The list was done blinded to the subsequent method of analysis in order, not to bias qualitative analysis. The documented operational deliverables were then mapped per category along a timeline in 5-year periods over the past 20 years, categorized according to the five pillars in the Care Continuum for Child Maltreatment,[8] and mapped as to multidisciplinary partners and collaborators.

Qualitative analysis was then performed to identify trends across time and the care continuum for child maltreatment that translate to core elements for the set-up and operationalization of CPUs and CPNs. From there, insights into programmatic lessons in prioritization and operationalization within constrained resources were then deduced from multidisciplinary perspectives: child abuse pediatrics (BJM), multi-disciplinary translational medicine (VLMH), and program infrastructure (DGB).

RESULTS

Qualitative analysis of the Care Continuum for Child Maltreatment deliverables: identification of key elements in set-up and operationalization

The Care Continuum for Child Maltreatment is a comprehensive framework for providing care for children who are abused and/or neglected. This framework document was written collaboratively with multidisciplinary partners, based on early experiences in the PGH-CPU, and based on thorough research of the state-of-the-art on child maltreatment as a medical, legal, and sociological phenomenon. The Care Continuum framework formed the basis for the establishment of the CPN. Notably, publications on the care continuum concept in pediatrics numbered 235 in 1997, 187 in 2002, growing to a still modest 1,013 publications in 2019 (PubMed.gov). These publications spanned the care for children who are terminally ill, ventilator-dependent, or with life-threatening chronic diseases – cancer, diabetes, epilepsy, as well as the transition from critical care to home care, adolescent to adult care (PubMed.gov).

More specifically, the Care Continuum for Child Maltreatment is a framework that spans 5 key components or pillars expected of a comprehensive approach for a complex multifactorial problem: 1) Multidisciplinary Intervention, 2) Training of Care Professionals, 3) Governance and Partnerships, 4) Research and Publication and 5) Prevention (CPN.org). Specifics listed in the 5 pillars of the care continuum were prioritized based on a review of the published literature, emerging experiences in the PGH-CPU, and adapted to domestic cultural realities and available resources.

As other studies evaluate the efficacy outcomes of PGH-CPU and CPN child protection programs and services, here we focus on documented operational deliverables attained during the establishment and maturation of the PGH-CPU and CPN across 20/15 years respectively. A documented operational deliverable is a recorded event or product in fulfillment of operational expectations along the Care Continuum. These documented deliverables can comprise different formats, such as a publication, a multi-disciplinary meeting, training sessions, collaborative partnerships with memoranda of agreement, advocacy outcomes codified in new laws and/or in executive orders, research papers, conferences, etc. These documented deliverables provide measurable outcomes of operationalization and offer the advantages of having been prospectively documented and hence, objectively identifiable.

Using the Care Continuum for Child Maltreatment as a framework, we mapped operational deliverables of the PGH-CPU and CPN, other than care of patients, along a timeline in 5-year periods and categorized along the 5-pillars of the Care Continuum for Child Maltreatment (Tables 1-A to 1-E).

Qualitative analysis of the number of documented deliverables per category across time reveals a time- and growth-dependent trend with each 5-year period (Figure 1). As shown in Figure 1, there were more deliverables in the Multidisciplinary Intervention category in the 1st 5-year period due, most likely, to the immediacy of the need to provide care to children who were abused – an issue prioritized based on needs-based research.

Concordantly, these deliverables in Multidisciplinary Intervention were supported by deliverables in Training, Governance, Publications, and Prevention.

Table 1. Timeline of Care Continuum Milestones per Category

Time Period	Table 1-A. Multidisciplinary Intervention
1st 5 years	1. Coordinated integrated multidisciplinary evaluation, case management, and reintegration care 2. Protocols on how to interview, do the medical exam 3. Medical profession responsibilities: mandatory reporting, referral, and confidentiality 4. Early detection strategies 5. Mobilizing child care professionals 6. Professional specialty consultation: [Orthopedics, Trauma, Pathology, Child Development, Radiology] 7. Child Preparation for Court Testimony [Kids' Court] 8. Utilization of Child Protection Management Information System [CPMIS-2000] 9. Pediatric Offender case management
2nd 5 years	10. Nationwide network of Women and Children Protection Units (WCPUs): Child Protection Network (CPN-2002; SEC registration 2003)
3rd 5 years	11. Expansion of the WCPUs 12. Expansion of the CPN Board 13. Memoranda of Agreement with Local Government Units (LGUs) to fund CPU operations and personnel budgets 14. Expansion of Funding base: private donors 15. Expansion of Development partners: United Nations (UN) agencies
4th 5 years	16. Trauma-Informed Care 17. Trauma-informed psychosocial processing

Table 1. Timeline of Care Continuum Milestones per Category *(continued)*

Time Period	Table 1-B. Training
1st 5 years	1. Multidisciplinary Training 2. Training on how to interview, do the medical exam, rape kit 3. Training for reporting, referral, and confidentiality 4. Inclusion of Child Protection in the undergraduate medical curriculum 5. Discipline-specific curricula and training: pediatricians, family court judges, police, social worker 6. Visiting Professor lectures 7. Participation in San Diego International Conference on Child Maltreatment, with specialized peer review sessions of PGH-CPU cases
2nd 5 years	8. Nationwide training for police in handling cases involving children 9. Women and Child Protection Specialty Training 10. Competency Enhancement Training for Judges and Court Personnel Handling cases involving children 11. Annual Conference for WCPU professionals
3rd 5 years	12. Continuing Education Opportunities: Annual conference open to all: *"Ako Para Sa Bata"* [2007 start] 13. Expanding the Network: Asian Resource Center [Pakistan, India, Cambodia, Vietnam, Indonesia 14. Expanding the Network: WCPUs in 35 provinces and 7 cities 15. Revised Specialized Course on the Investigation of Crimes Involving Women and Children for PNP Women and Children's Desk Officers 16. Training on the protocol for the case management of child victims of abuse, neglect, and exploitation for child protection stakeholders 17. Women and Child Protection Specialty Training as the Required Training of WCPU physicians 18. Multidisciplinary team training on women and child protection for front liners 19. Training of Public-School Teachers on the 4Rs of Child Abuse
4th 5 years	20. Certificate course on trauma-informed care 21. 4Rs of Child Abuse Training for Teachers 22. Training for facilitators and supervisors to deliver MaPa, and evidence-based parenting program tested in the Philippines 23. Training of trainers on the curriculum on women and child protection for OB-GYN residency training program 24. Training of trainers on the instructional design on child protection in the Pediatric residency training 25. Training leading to a certificate course on trauma-informed psychosocial processing 26. Enhanced Training on Handling Violence Against Women and Children for physicians, social workers, police officers, mental health professionals, nurses, and allied health professionals

Table 1. Timeline of Care Continuum Milestones per Category *(continued)*

Time Period	Table 1-C. Governance
1st 5 years	1. Participation in GO initiatives and oversight committees (e.g., DOJ committee for the special protection of children, PHILJA Research Committee; DOH Committee on Women and Child Protection) 2. Reporting child abuse cases to DSWD 3. MOAs with governmental agencies: DSWD, DOH, PNP 4. Partnerships with professional societies: PPS, PAPA 5. Support of the Association of Philippine Medical Colleges to include child abuse in the undergraduate medical curriculum 6. Advocacy for child protection issues: e.g., Moratorium on the Death Penalty for Incest 7. Contribution to the Rule on Examination of a Child Witness (2000)
2nd 5 years	8. Contribution to the Anti-trafficking in Persons Act (2003) 9. Contribution to the Juvenile Justice and Welfare Act (2006) 10. DOJ Circular No. 55 (Sep 2002) Authority to order the conduct of autopsy on the body of a child who may have died under suspicious or abuse-related circumstances. 11. DOJ Circular No. 54 (Sep 2002) Non-dismissal of cases involving violations of R. A. 7610, as amended (Special Protection of Children from Child Abuse, Exploitation & Discrimination Act), despite desistance of victims. 12. DOJ Circular no. 70 (Nov 2006) directs all prosecutors to act on cases filed against social workers taking in protective custody physically/ sexually abused children. 13. Contribution to the Rule on DNA Evidence (2007) 14. Guide for Media Practitioners on the Reporting & Coverage of Cases Involving Children (2008)
3rd 5 years	15. Contribution to the Anti-Child Pornography Act: Implementing Rule and Regulations (2009) 16. Advocacy for child protection issues: Advocacy for increasing the age for statutory rape and the banning of corporal punishment 17. Resolution for Approving the Protocol for Case Management of Child Victims of Abuse, Neglect, and Exploitation (2013) 18. DOH Administrative Order 2013-011: Revised Policy on Establishment of WCPUs in all governmental hospitals 19. Recognition by the DOH of the Women and Child Protection Specialty Training as the Required Training of WCPU physicians 20. Participation in the Department of Education Child Protection Policy
4th 5 years	21. Member of the core group of the Philippine Plan of Action to End Violence Against Children [All governmental organizations (GOs) and non-governmental organizations (NGOs)] 22. Approval of the Philippine Board of Obstetrics & Gynecology on incorporating women and child protection in the curriculum of the residency training program 23. Approval of the board of the Philippine Pediatric Society on the integration of instructional design on child protection in the Pediatric residency training curriculum

Table 1. Timeline of Care Continuum Milestones per Category *(continued)*

Time Period	Table 1-D. Research and Publication
1st 5 years	1. Publication on Best practices and child protection system needs: "Care Continuum" 2. Guidelines for Reporting mandates and confidentiality 3. Research Publication on detected program hurdles: e.g., Preparedness for existing law on "Death Penalty for Incest" – subsequently repealed 4. Cooperative Database: Child Protection Management Information System
2nd 5 years	5. 2005. Y-STR analysis for detection and objective confirmation of child sexual abuse [Int J Legal Med 119:158-163]
3rd 5 years	6. 2009: Commentary on National child maltreatment surveillance systems: examples of progress [Child Abuse and Neglect 33:809-814] 7. 2009: Legal outcomes of sexually abused children evaluated at the PGH-CPU [Child Abuse and Neglect 33:193-202] 8. 2009: Child protection in the Philippines [Int J of Child Health and Human Development 2-Issue 3-Special Issue: 271-276] 9. 2010: Adverse Childhood Experiences (ACE) and health risk behaviors among adults in a developing country setting [Child Abuse and Neglect 34:842-855] 10. 2011: Y-STR DNA analysis of 1054 female child sexual assault cases in the Philippines [Int J Legal Med 125:817-824] 11. 2013: Protocol for Case Management of Child Victims of Abuse, Neglect, and Exploitation 12. 2013: An evaluation of visual arts and poetry as therapeutic interventions with abuse adolescents [Arts in Psychotherapy 40:71-84]
4th 5 years	13. 2014: Competency Enhancement Training for Philippine Family Court Judges and Personnel handling Child Abuse Cases [Child Abuse Review 23:324-333] 14. National Baseline Study on Violence Against Children 15. A Systematic Review of the Drivers of Violence Affecting Children: Philippines 16. Research on Safe Schools for Teens to Prevent Sexual Abuse 17. Research on Parenting for Lifelong Health Philippines (MaPa 2-6 years old) 18. Establishment of the Child Abuse Neglect and Exploitation (CANE) Study Group at the National Institutes of Health 19. Establishment of the Asia Pacific Research Network with CANE as the first secretariat 20. Research on the Philippine Trauma-Informed Psychosocial Processing (adaptation of Cognitive Behavior Therapy with a trauma focus) 21. Evidence for Better Lives Study: research consortium of 8 universities in 8 low and middle-income countries led by University of Cambridge, UK. 22. Study of effectiveness of a parenting program to reduce violence in a cash transfer system in the Philippines

Table 1. Timeline of Care Continuum Milestones per Category *(continued)*

Time Period	Table 1-E. Prevention
1st 5 years	1. Prevention of recurrence of abuse 2. Prevention of impairment from abuse
2nd 5 years	
3rd 5 years	
4th 5 years	3. Safe Schools for Teens: Preventing Sexual Abuse 4. Parenting for Lifelong Health Program for 2- to 6-year-olds and 10- to 17-year-olds

As shown in Figure 1, there were more deliverables in the Multidisciplinary Intervention category in the 1st 5-year period due, most likely, to the immediacy of the need to provide care to children who were abused – an issue prioritized based on needs-based research. Notably, through the years, more deliverables in Training, Governance, Research, and Publications were subsequently attained reaching more total number of deliverable endpoints than Intervention by year 20 (Figure 1).

In retrospect, a programmatic review of the success of the PGH-CPU and the CPN over 20 years and qualitative analysis of the deliverables identify key elements for the set-up of a CPU as follows. First, an organizational roadmap based on a Care Continuum framework for child abuse and neglect provides a rational approach with the potential for stepwise implementation amenable to developing national funding and infrastructure constraints. The roster of deliverables in the first five years can serve as a potential checklist for guidance during the set-up of a CPU.

Secondly, given the multifactorial problem of child maltreatment, and the need for multidisciplinary intervention, strategic multidisciplinary partnerships with expertise-specific contributions and standards of excellence are equally important core elements. Collaborative operationalization of training into best practice protocols provides tangible measurable deliverables of partnerships codified in respective memoranda of agreements. Multidisciplinary collaborations are critical to all five pillars of the Care continuum and are central to the implementation and durable success of deliverables. Notably, the training involved the greatest number of multidisciplinary partners (Figure 1). While this is to be expected, the involvement of multi-disciplinary partners in training facilitated the optimization of discipline-specific training. The training opened the door to protocol development, which coupled with field testing, facilitated new policy development in the different multi-sectoral agencies. Multi-disciplinary training developed relationships among on-the-ground front-liners who later became organizational leaders.

A third critical element during the setup period is the on-the-ground full-time leadership and personnel to effectuate the Care Continuum to its optimum. In retrospect, the philanthropic decision to attain operational stability

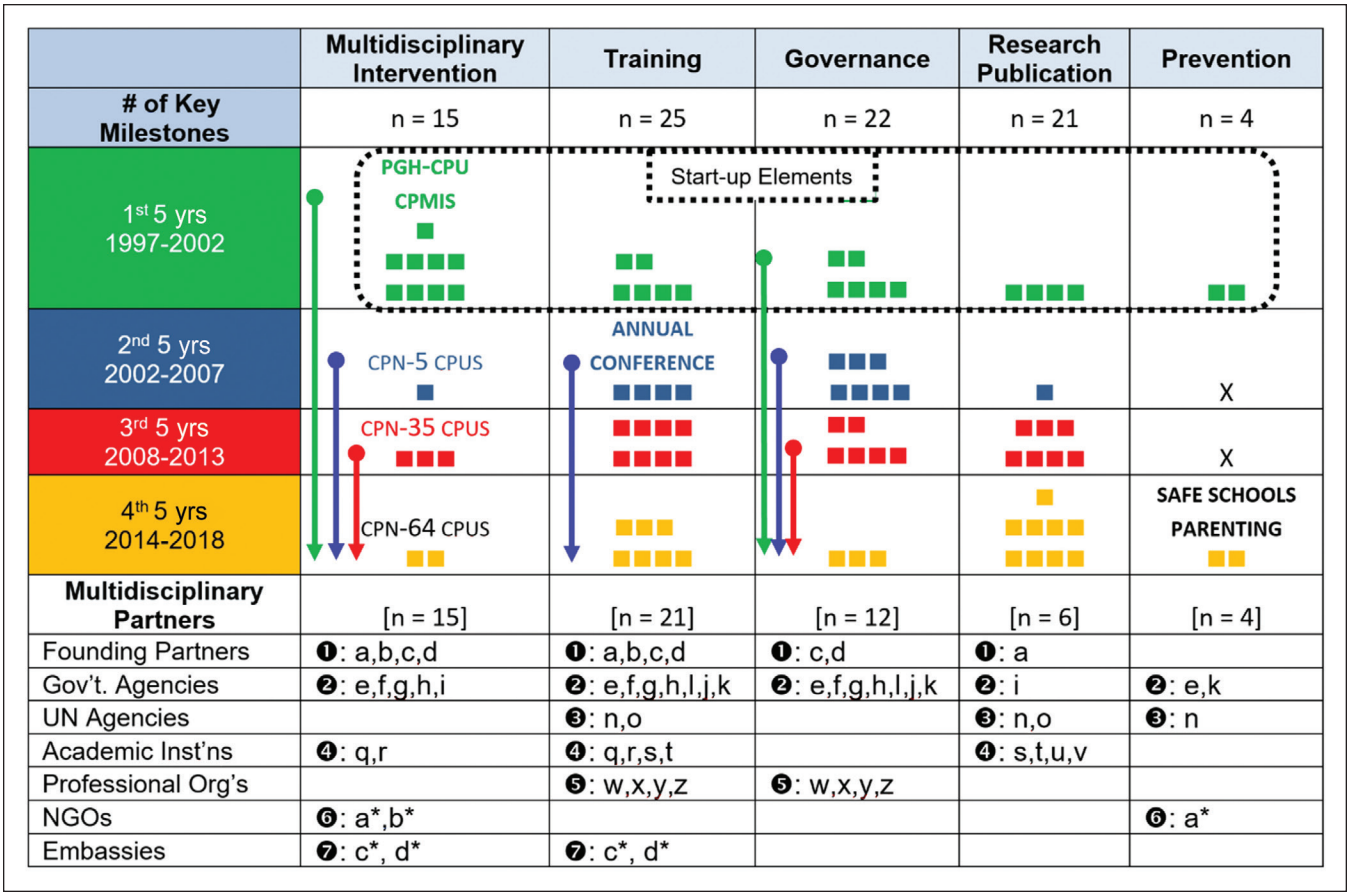

Figure 1. ***Timeline and Roadmap of Key Milestones attained in fulfilling the Care Continuum Framework for Child Maltreatment.*** Deliverables (■■■■) are mapped vertically across time in 5-year periods from the start in 1997, and mapped horizontally according to main categories listed in the Care Continuum Framework for Child Maltreatment [www.CPN.org]. Start-up elements: core deliverables prioritized at set-up in the 1st 5 years are boxed (dashed ☐). Arrows ↓↓↓: depict continuation of deliverables through the subsequent 5-year time periods. Annual Conference *"Ako Para Sa Bata"* (I am for the child). Multidisciplinary Partners:

❶ *Founding partners: a] Advisory Board Foundation/CityBridge Foundation, b] University of the Philippines (UP)-Manila Chancellor's Office, c] Philippine General Hospital (PGH) and Department of Pediatrics; d] UP-College of Medicine;*
❷ *Governmental agencies: e] DSWD, f] PNP, g] PHILJA, h] DOJ, i] DOH, j] LGUs, k] DepEd, l] UP-NIH (UP Manila National Institutes of Health), m] CWC, Council for the Welfare of Children;*
❸ *UN Agencies: n] UNICEF; o] WHO, World Health Organization; p] UNFPA (UN Population Fund)*
❹ *Academic Institutions: q] Children's Hospital Boston, Harvard Medical School; r] Rady Children's Hospital, University of California San Diego School of Medicine; s] UP-School of Public Health; t] University of Edinburgh, u] University of Cambridge, v] Capetown University;*
❺ *Professional organizations: w] Philippine Ambulatory Pediatrics Association, x] Philippine Pediatrics Society; y] Philippine Obstetrics-Gynecology Society; z] Association of Philippine Medical Colleges;*
❻ *Domestic and International NGOs: a*] 2012+ Consuelo Foundation; b*] 2012+ KNH Kindernothilfe;*
❼ *International Embassies: c*] UK Embassy Manila; d*] Netherlands Embassy Manila.*

over multiple years by investing in full-time leadership and personnel for the PGH-CPU was and continues to be a game-changer. It ensured stability and attainment of both short-term and long-term objectives. It maintained focus on the vision and was not diverted by other donor priorities. As a framework, the Care Continuum is an empty skeleton without skilled operationalization. Once earned, durable credibility becomes an invaluable foundation upon which to develop a CPN of regional CPUs, as done in 2002 with the establishment of CPN. Briefly, the CPN is a network of CPUs with a cohesive, strategic interconnectedness among each other. The vision and logistic advantage to establish the CPN as a stand-alone NGO was a learned perspective by all involved, as the format facilitated the partnerships with governmental and UN agencies, domestic and international NGOs, and multiple professional organizations. The CPN could only have been established by the on-the-ground leadership and multidisciplinary partnerships.

Lessons from qualitative analysis of deliverables over time and across the Care Continuum Framework

Qualitative analysis of deliverables that identifies process core elements also delineates key programmatic lessons that provide key insight into the establishment of other child protection systems. First, as shown in Figure 1, a key lesson is that programmatic prioritization of 24/7 medical care is central to Multidisciplinary Intervention and a credible pathway to mobilizing multi-disciplinary participation in the Care Continuum Framework. The decision for entry through the provision of 24/7 medical care was based on framework analysis from an accountable philanthropy perspective, and on-the-ground interviews evaluating need, resources, and strategic potential to attain, if not establish, standards of excellence (Advisory Board Foundation, Washington DC).

The challenge of a multisectoral approach is determining how government operational infrastructure, based on independent departments with separate budgets, can collaborate to create an integrated delivery system. By its very nature, the Care Continuum Framework provided a programmatic blueprint, that, in retrospect, was a "good fit" with the existing health care structure in the Philippines. Situating the CPUs as part of nationwide regional health care was acceptable, and accommodated the multisectoral nature of the field while also answering the needs expressed by those who were working in the field for both immediate and long-term response. The governmental system had an existing referral system that made up for the lack of a child protection system.

A second key lesson for operationalization of the Care Continuum is that a phased-in but framework-guided prioritization for the development of infrastructure, expertise, and growth can lead to the durable success of a CPU. While having a Care Continuum is important, it does not have to be attained all at once, nor should it be a basis for a negative decision not to do a Care Continuum framework-based CPU and CPN. Admittedly, the Care Continuum framework while comprehensive can be overwhelming if not daunting, especially when there is no pre-existing infrastructure. Notably, however, a phased-in approach can optimize the operationalization of a care continuum for abused children that prioritizes urgent needs within logistic constraints of a feasible roadmap. Planning a phased-in approach can be guided by the actual list of operational deliverables across time as a starting framework (Table 2). This approach was also important in the process for "scale-up" of the network of CPUs.

Table 2. Care Continuum Deliverables operationalized in the set-up of PGH-CPU in the 1st 5 years [1997-2002]

Multidisciplinary intervention	1. Coordinated integrated multidisciplinary evaluation, case management, and reintegration care 2. Best practice protocols on a child-friendly interview, medical exam, & documentation 3. Protocols for medical profession responsibilities: mandatory reporting, referral, and confidentiality 4. Early detection strategies 5. Protocols for mobilizing child care professionals: DSWD, PNP 6. Protocols for specialty consultation: [Orthopedics, Trauma, Pathology, Child Development, Radiology] 7. Child Preparation for Court Testimony [Kids' Court] 8. Development and Utilization of Child Protection Management Information System 9. Pediatric Offender case management
Multidisciplinary training	1. Training of medical professionals on how to interview, do the medical exam, rape kit 2. Training for reporting, referral, and confidentiality 3. Inclusion of Child Protection in the undergraduate medical curriculum 4. Discipline-specific curricula and training by multidisciplinary faculty for frontline physicians, family court judges, police, social workers 5. Visiting Professor lectures done by globally recognized experts on highly controversial issues needing clarification
Governance	1. Participation in governmental agency initiatives and oversight committees (e.g., DOJ committee for the special protection of children, PHILJA Research Committee; DOH Committee on Women and Child Protection, Network to End Violence Against Children) 2. Reporting child abuse cases to DSWD 3. MOAs with GOs: DSWD, DOH, PNP, LGUs 4. Advocacy for child protection issues: e.g., Moratorium on the Death Penalty for Incest, Court Rule on the Examination of the child witness; Court Rule on Increasing the age of Criminal Responsibility
Research & publications	1. Publication on Best practices and child protection system needs: "Care Continuum" 2. Guidelines for Reporting mandates and confidentiality 3. Research Publication on detected program hurdles: e.g., Preparedness for existing law on "Death Penalty for Incest" – subsequently repealed 4. Cooperative Database: Child Protection Management Information System
Prevention	1. Prevention of recurrence of abuse 2. Prevention of impairment from abuse

DOH, Department of Health; DSWD, Department of Social Welfare and Development; MOA, Memorandum of agreement; NGO, Non-government organization; LGU, Local government unit; PGH-CPU, Philippines General Hospital-Child Protection Unit; PHILJA, Philippine Judicial Academy; PNP, Philippine National Police

A third lesson is that the logistic location and integration of a CPU in an academic institution-linked governmental hospital provide key advantages. The academic institution provides institution-wide resources and facilitates forming credible multi-disciplinary partnerships. The establishment of the PGH-CPU in the University of the Philippines Manila System and as part of the UP-College of Medicine (UPCM) and PGH-Department of Pediatrics has provided an academic environment of excellence in care and research, as well as acts as an inherent pathway to training and curricular development for the training of current and next-generation experts in the care and prevention of Child Maltreatment. This enabled the institutionalization of manpower development for women and child protection through incorporation in the undergraduate medical curriculum first, and later in the residency and post-residency training of Pediatrics and Obstetrics-Gynecology.

Most importantly, the established academic standing of PGH, UP-CM, and their governmental non-profit organization status provided credibility to initiate multi-sectoral partnerships critical for the initial set-up (Figure 1) – all before any earned credibility. Analysis of multidisciplinary partners across time and deliverable milestones within the Care Continuum reveals the breadth of partners. The set-up of the PGH-CPU and CPN would not have been as straightforward without the multidisciplinary partners, and the milestones would not have been as impactful without operational multidisciplinary partners. For example, the Department of Health and Local Governmental Units were critically important to the set-up of the CPN; the Department of Justice and Philippine Judicial Academy were critically important to the development of the child-friendly Family Court infrastructure within the judicial system, and the different medical academic institutions and professional organizations facilitated the codification of training of different medical specialties for the care of abused children. The collective standing of partners facilitated the firm foundation towards earned credibility for the PGH-CPU and CPN, which in retrospect, has been key in navigating changing government administrations with different priorities through the years and in allowing the PGH-CPU and CPN to thrive through changing leadership priorities.

How to improve or do better in CPU or CPN set-up — recommendations

Just as retrospective analysis identified key elements and lessons, it also raises key questions.

First, could the operational deliverables have been attained faster than the 20 years? Potentially, the answer is always a yes, as the Care Continuum would benefit from a faster pace, but with the caveat that a faster pace requires more funding, more personnel, and resources. Today, the answer should be a yes – faster than 20 years should be the goal. In 1997, the pace was appropriate and allowed the maturation of the PGH-CPU and its multi-sectoral partnerships and collaborators. For the abused child, the answer is always a yes – as a faster pace for completion of operational deliverables can be life-changing.

Secondly, does a CPU need to earn credibility first then spearhead a CPN, or should a CPN be the priority from the outset? Historically, the PGH-CPU was established to address an unmet medical need, without the perspective of one day spearheading a CPN. The CPN consideration arose from the plan to partner seamlessly with other CPUs established by others. However, a need was identified to also help establish other CPUs in collaboration with the Women and Children Protection Program of the Department of Health and respective Local Governmental Units. The plan that a first-line CPU be established before a CPN remains a validated viable option, especially if need-based prioritization is high. Nevertheless, the recognition of the need for nationwide child protection services and indices is unequivocal.[9]

Thirdly, given that prevention still lags in terms of deliverables, the question arises as to how to have done prevention earlier? Given budget and personnel constraints when starting, one way to prospectively integrate prevention earlier is to follow a phased-in roadmap. Laying down the infrastructure for baseline data gathering as part of monitoring integrated medical services will provide foundational insight for future prevention programs, as well as provide key baseline comparators for research assessing the efficacy of future prevention programs. Practical application of these perspectives will necessitate integrating informed consent at the outset, not just for medical care and monitoring, but also for future clinical intervention and prevention research.

Most importantly, the question raised is how to improve and do better? Succinctly, there is always room to do better. One key aspect is setting 3 to 5-year programmatic plans with corresponding 3 to 5-year funding budgets. This would provide the potential for larger projects with longer-term cycles. One way for increasing the period for programmatic planning and budgeting is to set up a similarly Coordinated Continuum of Funding sources across the Care Continuum. This could provide seamless funded programmatic continuity and integrated value-add while matching interest with the development of the planned long-term care continuum deliverable. Another important element for improvement is the integration of programmatic evaluation from the outset. Methodology for evaluating complex programs has been evolving and improving, thus providing key tools that can, or should, be integrated into new program development. Notably, children's participation should be part of this.

DISCUSSION

The qualitative analysis of deliverables along the Care Continuum Framework attained by the PGH-CPU and CPN identified key elements for set-up and programmatic lessons for how to improve and how to better set up CPUs in low- and middle-income countries in the future. We do

note the limitations of qualitative analyses, however, it should be recognized that qualitative analysis is central to social sciences especially in complex multifactorial problems like child maltreatment, wherein the constraints for quantitative analysis can lead to highly-specific but restrictive assumptions.

The PGH-CPU and CPN were established through a spirit of generosity and standards of excellence that spanned all stakeholders, leaders, personnel, mentors, partners – all of whom shared the vision to do what's best in real-time for the care of children who were abused or neglected. In retrospect, both PGH-CPU and CPN were not burdened with pre-requisites for evidence-based project success before funding. Instead, both were given the freedom to develop towards gaining success along with a Care Continuum programmatic framework that would be phased in according to need-based prioritization and allowed to mature into a nationwide child protection system in the Philippines. The guidance from mentors, local and international advisers, and consultants, along with consensus problem-solving among inter-disciplinary collaborators were, in retrospect invaluable. These common intentions of doing it right and helping maltreated children converged and brought in multidisciplinary expertise, rather than multidisciplinary discordance. To date, this phased-in infrastructure rooted in collaborative partnerships, professional sensitivity to patient needs, and programmatic agility is key to timely response to current challenges: foremost, the expanded risks brought on by social media malpractice and online child sexual exploitation and sexual abuse.

Efforts were not dissuaded by prescriptive requisites for local research studies on child maltreatment and violence, child maltreatment data collection or surveillance systems, laws and policies, or child maltreatment reporting systems[4] before establishing the PGH-CPU. Likewise, early prevention efforts were also not dissuaded by the gold standard 'pre-requisite for evidence-based prevention programs,[10] which in hindsight can be a "practice dilemma" in the context of the abused child who needs immediate care and prevention from re-abuse in real-time. Today, however, we note that part of the growth of CPU and CPN has been the incorporation of evidence-based practice and the development of new programs that now have evidence of effectiveness. These evidence-based practices can now guide the establishment of new child protection units and networks. In parallel, the involvement of the CPU and CPN in research with academic partners around the globe has further enriched direct service to abused children and their families. Furthermore, while there are still many lessons to be learned in terms of how research and evaluation can be incorporated in poorly resourced settings, the value-add of integrating research and evaluation at the outset is clear and should be done.

Lastly, while we used operational deliverables as objective measures of programmatic efficacy, the impact on objective outcomes that directly benefit abused children and their families validate the roadmap to establishing child protection units or systems. The study by Sugue-Castillo (2009)[11] showed a conviction rate in child sexual abuse cases seen at PGH CPU that is similar to those of Western countries. This study also validated the impact of the PGH-CPU since the request for medical evaluation at the CPU is often the entry point into the child protection system, thus highlighting the critical role of the medical assessment in "initiating the community response to child abuse" and in delivering justice and protection for abused children.[11] A follow-up study by Lorenzana (2021) of the same patients 10-15 years later revealed a higher conviction rate (69.8%) among resolved cases than earlier findings of Sugue-Castillo (58%).[12] More importantly, the follow-up study also showed that 78% of child abuse patients did not have ongoing trauma symptoms, and the prevalence of suicide attempts and self-harm within the past year (4.8%) is much lower than the 28% who had suicidal ideations upon the first consultation. CPU services and support ranked second among the factors that were most helpful to the participants throughout the legal process. The support of family and relatives ranked first.

CONCLUSIONS

This qualitative analysis of documented operational deliverables, across 20 years of operations by the PGH-CPU and 15 years of operations by CPN, provides insight into a roadmap for the design of longitudinal operations-benchmarks that can be applied by others in the set-up of their CPUs and CPNs within the constraints of restricted resources requiring balance for real-time need and urgency in the care of abused children. More importantly, this roadmap provides a framework for improvement, as well as a foundational framework as to how to integrate a systematic methodology and/or infrastructure that can prospectively monitor effectiveness,[13] while retaining a framework of flexibility for evolutionary improvement based on forthcoming scientific information.[14] This roadmap also provides concrete steps towards a "phased-in implementation process over time", and provides the "sharing of information on child protection systems that are seen as key to accelerating progress for children's safety."[4]

While not included as operational deliverables, to date, the PGH-CPU has provided integrated multidisciplinary care to a total of 24,778 abused children and integrated services to their respective families over the 20 years, and limited re-abuse per year from 0 to 6.5%. Likewise, the CPN, with the incremental establishment of different CPUs nationwide, has provided integrated multidisciplinary care to 105,000 abused children in 57 of 81 provinces in the Philippines.

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Statement of Authorship

All authors contributed in the conceptualization of work, acquisition and analysis of data, drafting and revising and approved the final version submitted.

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