RURAL SURGERY INITIATIVE
CO-OPERASYON
IN SUPPORT OF UHC

PROJECT BRIEF

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PROGRAM NAME	:	**Co-Operasyon Rural Surgery Initiative**
PROGRAM TYPE	:	Implementation research / Pilot study / Health policy and systems
TIMELINE	:	June 2021 to December 2021, extendable
FINANCING	:	research development and initial supplies requested from CHDIV-A

PROPONENTS **Municipality of Mabini, Batangas**
through the Mabini Community Hospital (MCH)
University of the Philippines-Philippine General Hospital (UP-PGH)
through the Department of Surgery
DOH Center for Health Development IVA (CHD IVA)

The Problem

Republic Act 11223 committed the Philippines to Universal Health Care (UHC) to provide every Filipino with the full range of needed health services, coordinated through Primary Care. For other specialties, the Act leaves room for innovation toward this goal. One persistent challenge is the concentration of health resources in affluent and urban areas particularly for specialty and sub-specialty care, like Surgery. An estimated two billion people worldwide lack access to essential surgical services – a disturbing statistic for the Philippines considering surgery is a cornerstone and lifesaving treatment for many of the country's leading causes of morbidity and mortality. Among others, cancer is now the second leading cause of death, while transport accidents are the 11th leading cause for 2015-2019, remaining in the top 20 (rank 17) even in 2020 when strict lockdowns were in place. More urgently, surgically-treated illnesses are among those most neglected when the pandemic "covidized" health care around the world. They are therefore important contributors to the growing excess morbidity and mortality that already outweigh the burden of COVID-19 alone.

The Solution

Developing and developed countries alike have begun attempting Rural Surgery in hopes of finding ways to increase access to safe, affordable, high-quality specialist surgical services – with encouraging results. In Surgery, better access means better outcomes, because time not wasted means less blood loss, less hypoxic

tissue damage, milder tumor grades and stages, and the arrest or reversal of dangerous inflammatory cascades. Follow-up care and post-operative detection and control of complications also depend on access.

The Proposal

Rural Surgery can be introduced and mainstreamed in the Philippines starting with a properly studied pilot implementation, from which a blueprint can be produced that may aid in replication, policymaking, and further improvement. The **Co-Operasyon Rural Surgery Program** proposes to do this through a collaboration between the Mabini Community Hospital (MCH), Mabini, Batangas and the Department of Surgery, University of the Philippines-Philippine General Hospital (DOS, UP-PGH), supported by the Department of Health Center for Health Development IVA (DOH CHD IVA).

OBJECTIVES

STRATEGIC GOALS	OPERATIONAL OBJECTIVES
1. Improve surgical health outcomes during and beyond the COVID-19 pandemic	1. To meet the needs of catchment population(s) for surgical care • At sufficient service volume and quality • Encompassing outpatient care to ambulatory surgical patients especially cancer cases • Inclusive of Anesthesia, surgical subspecialties, Obstetrics and Gynecology and Orthopedics
2. Strengthen public surgical care capacity of local health care provider networks	2. To empower local health workers (MHO, PHN, BHW) to be an integral part of surgical service delivery
3. Introduce rural surgical practice to trainees	3. (For surgical trainees) To gain experience in staffing and being responsible for rural surgical centers as part of health

Abbreviations: *MHO*- Municipal Health Officer; *PHN*- Public Health Nurse; *BHW*- Barangay Health Worker

PROPOSED SITE

The Municipality of Mabini with generous support from the DOH CHD IVA has invested in the MCH infrastructure, initial personnel, and basic capabilities. MCH began operating as an infirmary in July 2020, serving about 300,000 inhabitants of the second district of Batangas, whose six municipalities range from 1st class to 3rd, 4th, and 5th class. The district lacks its own district hospital, and competes with the entire Region when referring to the Batangas Medical Center (BatMC) in the adjacent Batangas City.

Figure 1. Three entrances of the Mabini Community Hospital (MCH). The structure is the first of a planned complex for which 1.5 hectares has been allocated, with an adjacent 3 hectares dedicated to Batangas State University buildings.

TRAINING AT ALL LEVELS OF HEALTH CARE NETWORKS

The Philippine General Hospital is committed to community-oriented medical education directed to the underserved. Aligned with the UHC Act, UP-PGH has signed a Memorandum of Understanding (MOU)with the Provincial Government of Batangas to serve as one of its apex hospitals. Apex hospitals are intended not only to provide services but also to assist local health systems. The pandemic and the recent fire have reduced PGH surgical service capacity, artificially creating an excess supply of surgical expertise. In the short term, PGH surgeons can be deployed to MCH, simultaneously meeting the Municipality's local health needs and the Surgery residents' training requirements. But in doing so, the conditions can be set for long-term mainstreaming of such

Rural Surgery deployments. The Program introduces multi-facility, multi-level services and training, altering the case mix and corresponding reimbursement portfolio at PGH to shift toward complex cases referred from MCH. Meanwhile, common cases and step-down care can be managed peripherally through Rural Surgery rotations, thus enhancing access and facilitating continuity of care. The vision of the UHC

DEPLOYMENT PLAN

The area is approximately 2-3 hours' drive from Manila, an ideal distance that is near enough to facilitate research monitoring and rotations from PGH, but far enough to reach areas with access challenges. The Department of Surgery (DOS) will send a team of 3 residents (1 senior, 1 intermediate, 1 junior) who will go on a 1-2 week rotation. They will man the Outpatient area, the Operating Room, and the ward. The MHO, a General Surgeon, will help supervise the residents as on-premise consultant, while PGH consultants supervise both remotely through teleconferencing for every case and on the premises as much as availability allows. All patients will initially be seen at the six Rural Health Units (RHU) of the catchment District and their barangay health stations. Surgical cases will be taken care of at MCH as much as safety and capability can allow; otherwise, they will be referred upward to Batangas Medical Center or to PGH. Emergency cases may bypass MCH depending on the need and the capabilities at MCH. Follow up care will be done at MCH. Monitoring of the Program will be carried out by the overall coordinator of the Program and the locally-stationed research assistants.

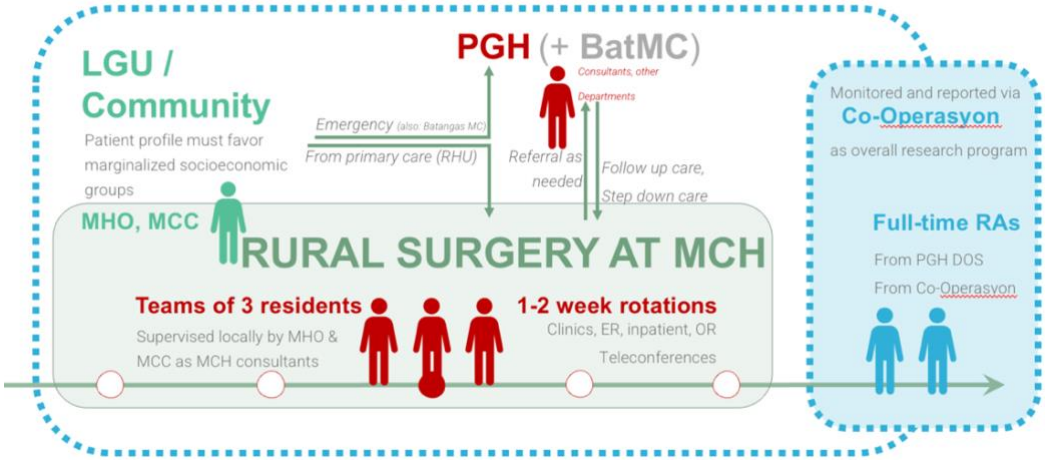

FIGURE 2. Schematic representation of Rural Surgery resident rotations. The research Program (dotted line) will help set these up, study them, and from them produce a blueprint and policy insights.

Abbreviations: PGH- Philippine General Hospital; BatMC- Batangas Medical Center; MCH-Mabini Community Hospital; RA – Research Assistant; LGU-Local Government Unit; ER-Emergency Room; OR- Operating Room; DOS- Department of Surgery; MHO-Municipal Health Officer; RHU- Rural Health Unit

The research and implementation teams comprise diverse backgrounds and expertise in health systems development, general surgery practice, hospital administration, Public Health and Community Medicine Practice, Surgical Training, and Community Mobilization, which are all instrumental in applying solutions that marry international theory with local relevance.

SUSTAINABILITY STRATEGY

Since MCH service offerings are currently limited by staffing- and supply constraints, utilization is low. This limits hospital income from PhilHealth, thus perpetuating the logistical constraints. To break this cycle, MCH needs to jump-start revenue-generating services of sufficient quality and volume as to finance a steady stream of supplies and personnel that can then sustain at least those services in the short-term and expand them in the medium-term. The unmet need for surgery in its catchment area is one such opportunity.

The operations performed under the Program will generate revenue for the host site, provided MCH is accredited and properly computerized to claim PhilHealth case rates. Surgeons'

salaries are covered by PGH, allowing PhilHealth income to cover other expenses. Over time, major surgeries may be performed in addition to minor and medium procedures, further boosting revenue potential. As the hospital proves effective to the community, it can attract more patients and offer more services, expanding its income streams. Once this virtuous cycle is started, the local government can be weaned off DOH support. The Program will have turned the (currently dominant) DOH outlays into a one-time investment that should become a locally-owned self-sustaining asset.

Training can also be a stepping stone to sustainability. Trainees exposed to well-equipped, well-run public hospitals where they can practice without worrying about resources may consider such places as part of their careers after graduating. If they stay, the Program will have a stronger faculty base in that area, or can safely move on to other underserved areas without crippling the current site.

RESEARCH GOALS

The research component allows the Program to learn during the implementation, optimizing it for success, and to learn from the implementation, generating knowledge about how best to meet the country's dire need for better access to surgical specialty care especially in underserved rural areas The research framework will examine the process of setting up the Rural Surgery services to gauge its costs and to identify factors that helped or hindered implementation. It will also study the services themselves, their inputs and outcomes, and as much as possible their health effects. The main output is intended to be a manual of procedures or similar document in aid of replicability, in addition to the customary data, analyses, and reports to be shared with funders and policymakers.

Significance

The proposed Program advances Philippine and developing country surgery in several respects. It embraces the Lancet's Global Surgery recommendations, WHO's Health Systems Framework, Rural Surgery good practices from around the world, and locally, the Universal Health Care Act and Primary Health Care principles. The Program will demonstrate proper leveling of care, reinforcing if not catalyzing the health networks espoused by the UHC Act. The levels to be involved will begin with primary care at the community (barangay health station) level and RHUs, widening their range of services. If patients progress to the level 1 community hospital (MCH), they would find it better staffed, equipped, and financed not only temporarily but with a longer-term locally co-developed plan. From there, they can proceed if needed to either of two level 3 or apex hospitals (UP-PGH or BatMC), and back again. By structuring the Rural Surgery implementation within a research Program, the entire effort can generate evidence-based recommendations that are useful for scaling up through policy or scaling out (e.g. replicating) through a blueprint for Philippine Rural Surgery, which is a key output of the Program. By integrating these innovations with a training program, there is also the promise of specialist retention in rural areas, counteracting urban-centrism and reinforcing Universal Health Care.

Cost Approximation:

Table 1 presents the approximated cost which includes the monthly stipend of the Fellow based on the Salary of Surgical Fellowship at PGH.A regular surgical fellow's remuneration is Salary Grade 23 (SG-23). The government item for this is Medical Officer IV(MO-IV) The token for the consultant-in0chrge is USD200/month (₱10,000 /month). The computed Minor OR supplies is₱7,306.00. this covers simple mass excisions and minor surgical procedures under local anesthesia. The major OR supplies wa also itemized and computed o do an exploratory laparotomy with bowel resection and anastomosis, ang cholecystectomies(Laparoscopic/open). The amount specified is the upper cost among the most commonly done procedures involving general anesthesia.

	Monthly	3 months	6 months	1 year
Stipend (MO4; SG23)	₱75,359.00	₱226,077.00	₱452,154.00	₱904,308.00
consultant-in-charge token	10,000	30000	90000	270000
Minor OR supplies	₱7,306.00	₱21,918.00	₱43,836.00	₱87,672.00
Major OR supplies	₱6,106.00	₱18,318.00	₱36,636.00	₱73,272.00
Total	₱98,771.00	₱296,313.00	₱622,626.00	₱1,335,252.00

Table 1. Cost approximation of monthly Fellow stipend, minor and major OR supplies/needs, and stipend for consultant-in-charge

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