A PROPOSAL FOR THE COLLECTION OF GLOBAL SURGERY AND ANAESTHESIA STATISTICS

INTRODUCTION

There is increasing acknowledgement of the linkages between universal access to surgical, obstetric and anaesthesia care, global health and sustainable development. Within the context of the 2030 agenda, with its seventeen Sustainable Development Goals (SDGs), the aspiration for Universal Health Coverage (UHC) and the 2015 World Health Assembly (WHA) Resolution 68.15\(^1\) recognizing the importance of surgical and anaesthesia care as part of UHC, there has never been a more opportune time for representatives from the international, research and medical communities to come together to merge their efforts in support of the integration of surgical and anaesthesia care as part of the global health agenda.

Surgical and anaesthesia services need to be adequately assessed for policymakers and practitioners to be able to better meet present and projected demands. Indeed, measurement is the first step toward understanding and improvement. Yet, while a wealth of data has accumulated globally over the past decades in the areas of health and health care, there remains a dearth of data related to surgical and anaesthesia care. This poses a challenge for policymakers in attempting to improve such services, as they cannot plan for what they cannot measure. At the global level, data are necessary to monitor progress towards UHC and the health-related SDGs.

The availability, accessibility and use of high-quality, timely and reliable data on surgery and anaesthesia need to be significantly increased, especially in resource poor areas. Experts in the field of global surgery have identified a clear need for the collection of a standardized set of indicators to monitor surgical systems.

Recognizing the paucity of global data on surgery and anaesthesia, in 2015 the WHA resolution 68.15 urged Member States to collect and compile data on number, type and indications of surgical procedures, referrals and perioperative mortality in their respective countries, and to share such data as appropriate. This resolution further called upon the Director General to establish mechanisms to collect emergency and essential surgical and anaesthesia case log data, to devise relevant, meaningful and reliable measures of access to and safety of surgical and anaesthesia care, and to collect, assess and report related cost data on the delivery of emergency and essential surgical care.

In 2017, Member States further approved an amendment to WHA resolution 69.11 on Health in the 2030 Agenda for Sustainable Development, calling upon the World Health Organization (WHO) Director-General to report every 2-years on progress towards Strengthening Emergency and Essential Surgical Care and Anaesthesia as a component of UHC, as detailed in WHA

resolution 68.15. The WHO African Group, representing 47 Member States, further called for the development of a Global Plan of Action to support implementation of this resolution.

In 2014, the Global Alliance for Surgical, Obstetric, Trauma, and Anaesthesia Care (The G4 Alliance), a coalition of over 85 member organizations from around the world committed to the common goal of achieving safe surgical and anaesthesia care for 80 percent of the world’s population by 2030, launched a campaign to prioritize surgical care indicators. As a result of this collective advocacy effort, indicators, directly or indirectly associated with surgical care, have been included in the latest 2015 revision of the WHO Core Reference List of 100 Core Health Indicators. These indicators correspond with the indicators that were proposed by the Lancet Commission on Global Surgery. Since 2015, the World Bank has accepted the six indicators for inclusion as World Development Indicators (WDI) of which four with sufficient available data can already be found on the World Bank Open Data platform.

Evaluation of the Present Situation

In July 2015, after the Lancet Commission on Global Surgery report was published, Commission members from the Program for Global Surgery and Social Change (PGSSC) at Harvard Medical School began to collect nationally representative data for each indicator in the 215 countries and independent economies recognized by the World Bank. This was the first attempt to systematically and comprehensively gather primary data on surgical systems on a global scale so as to improve on previously modeled estimates. In 2017, a second round of data collection was carried out under the leadership of the King’s College London.

In November 2015, the first report on the six surgical indicators was created, with data received from 64 countries. The current metrics have a number of challenges and will require further refinement, alongside concerted efforts to improve the amount and quality of data collected.

As with all statistics, global surgery and anaesthesia statistics are dependent on definitions of statistical units and populations. Surgical target goals are based on ensuring that a certain percentage of the population has access to specific services or resources, or achieves a certain level of social, economic, or physical health. These measurements require a solid and regularly updated understanding of not only how many people live in a country, but where and who they are. Variables and classifications crucially need to be properly defined and definitions uniformly

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5 World Bank. "World Bank Open Data”. Available at: https://data.worldbank.org/

applied by all countries. For many of these topics various data sources are necessary, including population and housing censuses, sample surveys, and health information systems.

Given the interrelationships between surgery and the wider health and social development of nations, other indicators, including demographic, socio-economic and financial indicators are important to understand surgical care and the needs of populations within these contexts, including population distribution by age, sex and geography, population density, geospatial information on health facilities, Gross Domestic Product (GDP) per capita, infrastructure development, electricity, water supply, health expenditure and out-of-pocket cost of surgery insurance systems. An important first step is to include surgically correctable disease and surgical and anaesthetic care within existing population and facility-based monitoring systems.

While individual countries bear the responsibility for collecting data on global surgery, international organizations could act as collators and disseminators of this information.15

Health information systems, hospital records, population and housing censuses, sample and household surveys, facility-based surveys, vital statistics systems and population registers are key examples of existing data collection mechanisms important for global surgery data collection. The main data sources for surgery statistics can be divided into two categories: 1) facility-based data such as hospital and facility records and individual patient records and 2) population-based approaches, including population and housing censuses, civil registration and vital statistics, and population sample surveys.

A number of data-collection approaches and sources could fit in both of the above categories and can provide important information that may not be available elsewhere, for instance health surveys, research, and information produced by community based organizations and professional medical associations.

CALL FOR ACTION

The signatories of this paper commit themselves to:

- Support the establishment of a working group of experts on global surgery and anaesthesia statistics, with participants drawn from national statistical authorities, line ministers, health facilities, health service providers, professional societies, national and international NGOs, academia and international organizations and the research community.
- Organize a first meeting among the working group of experts on global surgery and anaesthesia statistics in 2018.
- Draft preliminary recommendations on global surgery and anaesthesia statistics as well as a global surgery statistics compiler manual (both tentatively set for issuance in 2019).
SIGNATORIES

The authors of this background report ask for your support in raising awareness of the need to invest in surgery and anaesthesia statistics. We believe that only by working together can we be best positioned to add value to the statistical discussions around global surgery and anaesthesia and capitalize on the vast knowledge each of you brings.

As such, if your organization agrees with the principles and recommendations of this concept note, we would be honored to add your name to the list of signatories.

Thank you very much.

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This report was developed through a collaboration of the German Global Surgery Alliance and the Program in Global Surgery and Social Change at Harvard Medical School.