Role of Data Use and Transparency to Strengthen Health Systems

Running Title: Data use and Transparency in Health systems

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COVID-19 pandemic has imposed biggest global health and economic challenge in the recent history. This pandemic has raised important questions about data sharing and transparency and the challenges associated with data use [1]. Data is needed to conduct routine analysis of any outbreak/ epidemic/ pandemic with respect to the epidemiology of the infection, availability of medical supplies, hospital beds, human resources (HR) and to perform actions based on the changing needs. It is argued that onset of initial cases were not reported early and this initial delay in reporting led to the global spread of COVID-19 [2]. Later on, improved global data sharing put the countries on alerts and countries including India took relevant public health actions [2]. In China hospitals with capacity for hundreds of beds were set up within days to be used as quarantine and treatment facilities for COVID-19 [3]. India also kept on revising its policies for public health actions based on the information available internationally [2, 4-5].

Still, with growing pandemic, experts from all over the world felt the need of more granular data for focussed public health actions. Countries lacked such type of timely and accurate data to fight with COVID-19. The missing or unrecorded data is not just due to the weak data infrastructure, but also due to global political and media pressure that restricted 'data sharing'. The reluctance of governments to share the data regarding COVID-19 could be to prevent panic in the population or due to fear of shutting the economy, lack of testing resources, or reluctance to accept failures because of weak health infrastructure [6]. Many epidemiologists, public health experts and academicians have raised concerns about India's COVID-19 data as well. The Lancet article pointed to several sources of uncertainty in India's COVID-19 mortality data [7]. Better and accurate data would have given the leverage to the government to better plan the containment strategies such as drawing up the hotspots and keeping the medical infrastructure in a state of readiness.

Given the huge resources that were poured into the health programmes around the world over many years, it should be a matter of global shame that the huge number of cases and deaths due to

COVID-19 went unrecorded. The neglect of data use during pandemic is also reflected by the fact that although 63% of low-income and lower-middle-income countries need additional financing for data and statistics to face the challenges posed by COVID-19, yet, less than 0.5% of international funds on COVID-19 were focussed on data & statistics [8]. This clearly indicates the low weightage given to data and information use in the health systems globally.

Covid-19 has exposed the major cracks in the health systems. There is rethinking globally to redesign and reorganise the systems. Digitalisation is going to be the mainstay of the health care systems. This translates into generation of granular data using digital modes. Currently, there are data portals for different programs separately; for example, Health Management and Information System (HMIS), Information portals for tuberculosis program, HIV, IDSP etc. There is no connectivity between these data portals. There is need of single integrated data portal. One person, One country and One IDNO (Identification Number) for all data related to health, education or the other sectors. Relevant departments can have restricted access.

Health information is one of the six building blocks as per World Health Organization's framework for action for strengthening health systems to improve health outcomes [9]. This building block has been characterized as 'the tide that lifts all the boats', as this helps in improvement of workforce management; access to technologies and the financing of healthcare; help in better planning and implementation of all health programmes; and the better organization of service delivery. Thus, information acts like the glue that binds together all these building blocks with the governance and leadership of the health sector [10].

In pre-COVID-19 era as well, there was increased attention to data use at the international level and the Global Open Data movement was also gaining momentum to promote free access and use of data [11]. But, despite these advances, the analysis and use of information in decision-making was limited [10]. The data quality and data use have always been a concern specially in the low- and middle-income countries [12]. In India, situation was no different as both data quality and data utilisation were reported low [13-15]. Interventions like workshops, training, educational programs were done in different countries to build capacity of health professionals to improve data utilisation skills [16-19], but the studies with rigorous methodology are limited. Initial experiments were also undertaken in India as well to improve data usage at sub-district level by providing training and onsite mentorship to medical officers. These experiments proved out to be successful as there was significant improvement in the skills for data extraction and motivation to use data among medical officers [20]. This model of providing training through onsite mentorship and follow up has also been taken at the larger scale (unpublished work) and initial observations of this project are that data use is given the priority only when there is strict governance at the higher level. Thus, improving quality of data and building capacity of HR to use the data, and better data sharing transparency should be given priority by the Government to strengthen the health systems in India.

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