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VIEW POINT

INITIATION OF CONTACT TRACING FOR COVID-19 AT AN ACADEMIC INSTITUTION FOR HEALTH SCIENCE: INITIAL EXPERIENCES

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ABSTRACT

Transmission of COVID-19 cases has been found in clusters and sporadic form in different parts of Nepal, which swiftly strained the healthcare system. Contact tracing is a strategy to prevent further transmission of the COVID-19. It reduces the overwhelming burden in a health system. Academic institutions are the best alternative in contact tracing, not only in terms of task shifting but their training in epidemiology and research also best suits them. Besides, they can also train the health workers assigned for contact tracing in rural and urban settings. Multi-sectoral involvement from academia, community health workers, and effective information flow are instrumental for effective contact tracing in resource-limited settings.

INTRODUCTION

In Nepal, the first case of COVID-19 was diagnosed on January 23, 2020,[1] and as of August 14, 2551-positive cases with 99 deaths have been recorded.[2] Transmission of COVID-19 cases has been found in clusters in five provinces and a sporadic form in two provinces. Distribution of COVID-19 cases was disproportionately reported from Provinces 1, 2, 5, Bagmati, and Sudurpaschim.[2,3] Public health professionals have been tracing people who came in contact with clinical and subclinical cases for many years to curb the transmission of infectious diseases.[4] European, North, and South American countries' situation depicts how rapidly the healthcare system is overwhelmed.[5,6] The scarcity of logistics and weak health systems in resource-limited settings like Nepal escalate the pandemic.[7] However, the Government of Nepal has been massively increasing testing facilities, as of August 14, 39 different laboratories are doing reverse transcription-polymerase chain reaction (RT-PCR).[2] Testing itself will not prevent transmission of COVID-19; testing is part of public health intervention. In this article, we explain why there is a dire need to strengthen contact tracing strategy in Nepal, a useful public health tool to flatten the curve.[5,8]

CONTACT TRACING: IN THE PRESENT CONTEXT AND ITS ADEQUACY

A Contact tracing in the COVID-19 pandemic is a systematic process of identifying, assessing, and managing people exposed to SARS-CoV-2 to prevent further transmission.[9] It is one of the pivotal strategies to prevent the spread of SARS-CoV-2.[10] Government of Nepal (GON), Ministry of Health and Population (MOHP), has developed COVID-19 Case investigation and contact tracing teams (CICTTs) mobilization and management guidelines. The CICTTs are formed and mobilized by every local-level authority, led by public health professionals, and composed of diverse skill sets of human resources such as paramedic/nurse, laboratory workers, and representatives from other partner organizations.[11] Local-level CCITS are responsible for contact tracing of close and casual contact and have to fill necessary contact tracing forms developed by the Epidemiology and Disease Control Division (EDCD). CICTTs work in close coordination with local level Rapid Response Teams in identifying contact people within line listing and do an essential follow up in 7 days, and report to inform public health actions.[9] Contact tracing in rural areas is, to some extent working. However, incomplete information on how many contact tracings of confirmed cases was done

and how many contacts were contacted for tracing was not transferred to the Ministry level. Nevertheless, in urban areas, contact tracing is extensively challenging to carry out.[11] There is no additional institutional mechanism for contact tracing. The CCICTs working under the already overwhelmed health system cannot work effectively in contact tracing, which could be the reason for the sporadic distribution of cases in Bagmati and Gandaki provinces.[2,11]

In our experience of contact tracing, first, the MOHP and Tribhuvan University Teaching Hospital (TUTH) had requested the Institute of Medicine (IOM), Central Department of Public Health (CDPH), and Department of Community Medicine (DCM) for contact tracing in the mid of May 2020. Then, immediately CDPH had formed a contact tracing team, including five faculties and ten public health graduate students (Bachelor's and Master's level). After that, the departments had organized training programs to the team about the use of case investigation (A1) and contact interview forms (B1) based on Standard Operating Protocol (SOP) for contact tracing developed by EDCD. This contact tracing team called patients who had contacted COVID-19 and their close contact to ensure PCR tests and quarantine measures. It identified 515 contacts; all contacts were tested for Rapid Diagnostic Test (RDT) and the PCR test. Among them, 14 cases were positive in the PCR test. We advised the TUTH for isolation, home quarantine, treatment, disinfection of specific areas, preventive measures for health workers, other patients, and visitors. We presented the real-world experience of contact tracing initiative using resources of academic institutions, faculties, and public health students. Students were incentivized to gain hands-on skills in contact tracing and epidemiological investigation, and it also supported the already overwhelmed health system. We submitted a report to the EDCD/IOM/TUTH.

WAY FORWARD

During a pandemic, the health system has been overwhelmed by the rapid surge of cases and challenging to perform effective contact tracing. First, a health science academic institution could be an appropriate alternative for contact tracing. GON can employ public health faculties and students from academic institutions with adequate financial and logistics supplies for contact tracing in urban areas. Academic institutions equipped with professional faculties and health science students can be instrumental in tracing contacts during human resources shortage. Their training in research and epidemiology best suits them to do this task more effectively and efficiently. Second, in rural settings, contact tracing workforce may not be limited to health professionals. Contact tracing team consists of community-level health workers, teachers, and local club members who could be employed, followed by training, and supply of logistic and financial support. These two strategies reduce the workloads of contact tracing on frontline healthcare workers. This shifting of task from health worker to the academic community not only provides health worker more time to deliver needful clinical care but also a division of labor and efficient use of available resources. Real-time information exchange, advice and opinions between experts or officials and people on contact tracings are instrumental for combating pandemics. Effective communication of public health risk to the general public before, during, and after the COVID-19 outbreak would increase public trust and stewardship in health.

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