Community-based Suicide Surveillance:

Key Findings from Pilot Study in Jhenaidah District of Bangladesh

Background: Suicide is a major public health problem globally. Every year, approximately one million people die due to suicide and three-fourths of these global suicides have been estimated to occur in low and middle-income countries (WHO, 2014). The Southeast Asia region alone accounts for 40% of the global suicide deaths, with China and India being the leading contributors (WHO, 2014; Värnik, 2012). Bangladesh also has been affected by this emerging health crisis with an average annual suicide rate of 8 per 100,000 as per the World Health Organization's report. The Government of Bangladesh has committed to consider suicide as a national health priority to achieve the NCDs target as per the Global NCD Action Plan 2025 and Sustainable Development Goal (SDG target 3.4.2). However, due to the lack of a systematic reporting system on suicide, the actual suicide data is often under-reported and unreliable calling for an urgent need for a structured suicide reporting system.

Bangladesh Center for Communication Programs (BCCP) is an implementing partner of SPIRIT (Suicide Prevention and Implementation Research Initiative), a 4-year project starting in 2018 with the Centre for Mental Health Law & Policy (CMHLP), the Indian Law Society (ILS) of India in collaboration with Trimbos Institute, Netherlands; SNEHA- Suicide Prevention Centre, Chennai. The project aims to bridge the gap between scientific evidence and practice in suicide prevention and mental health interventions in India and Bangladesh (Pathare, S. et al, 2020). The project has two components: Scale-Up Core and Capacity building Core. As a part of the Capacity-building core, BCCP piloted the SPIRIT Community Based Suicide Surveillance Protocol in three villages of Bangladesh from January to April 2021. The main aim of this pilot study was to implement a comprehensive surveillance system in rural Bangladesh and reflect on its marginal value to formal records in obtaining timely and quality suicide data.

Objectives:

1. To assess the feasibility of adding community-based surveillance data collection to create a comprehensive suicide surveillance system.
2. To assess the added value of the community surveillance in obtaining additional suicide and attempted suicides data by comparing it to data from formal records.

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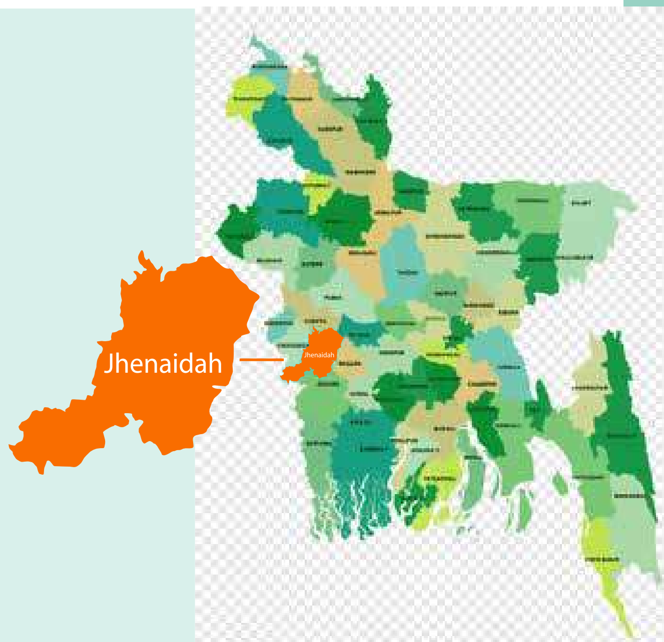
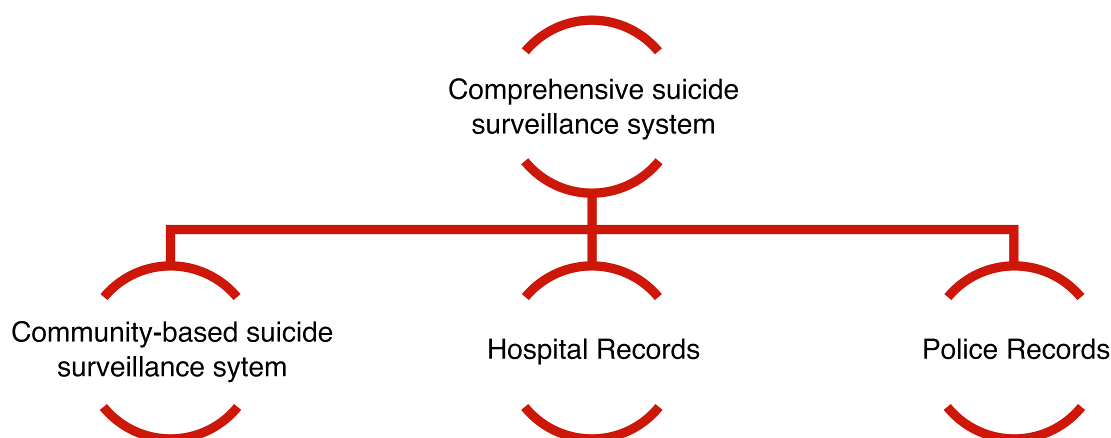
Study Design and Setting: The pilot study design was adopted from the SPIRIT-designed community-based suicide surveillance system. It is an integrated approach to procure information from various sources: community-based surveillance, hospital records, and police records, and finally triangulating the data reported on suicide or suicide attempts. The study was conducted in three villages (with a population of 16,810): Mul-Tribeni, Dudhsar, and Nityanandapur from three unions of Shailkupa sub-district, Jhenaidah district in Khulna division (Social Mapping, 2020). The study was conducted for a period of four months from January to April 2021 where we recorded cases for the retrospective month. Ethical Clearance was obtained from the National Ethical Review Committee (NERC), Bangladesh Medical Research Council (Serial: 308 08 06 2020), and written consent of KIs was taken.



Approach of Community Surveillance: The community-based suicide surveillance system included the collection of information from the community-based Key Informants (KI) such as community health workers, school teachers, community leaders, and local government representatives who know about the day-to-day happenings in the village settings.

Data from Health Facilities and Police Station:
Data on attempted suicide and suicide were collected from the regional public and private health facilities that had inpatient care facilities, which constitute healthcare facilities where people from study villages may have sought care or been referred to in the event of a suicide attempt. Data for all unnatural deaths recorded at police stations in the concerned thana was also collected.



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Community Engagement: We partnered with the local health and administrative authorities (the Union Parisad members) and sensitized them about our approach. As the next step, we did a community and stakeholder mapping, and a transect walk and community sensitization meeting were organized by the research implementation team. These exercises helped to build rapport with the community and identify social structure, potential key informants, and health service points where cases of suicide and suicide attempts are being reported and records were maintained (public hospitals). Five Multipurpose Health Volunteers (MHV) were selected with consultation with the local health authorities to be involved in the data collection process for the study.

Data Collection: Data was collected monthly by MHV from all the community-based key informants while from formal agencies (hospital and police records) it was done on a bimonthly basis. A short Case Report Form (CRF) was used to collect the information that was adapted to the social, cultural, and local government system of Bangladesh in consultation with the SPIRIT team to maintain the fidelity of the original tool. A total of 50 KIs were recruited along with the 3 public hospitals, and 1 police station (Thana) as data collection points.

Major Findings:

A total of 11 cases were identified during this period out of which 1 was a suicide case and the remaining 10 cases were of suicide attempts. The rate of suicide attempts was higher among women (60.0%) compared to males and most of them were below 35 years population group (63.6%). Organophosphate poisoning was the opted method in around 81.8 percent of the cases.

Cases	CS	HR	PR	CS and HR and PR	CS and HR	CS and PR	HR and PR	Total
Attempted suicide	4	3	-	-	3	-	-	10
Suicide	1	-	-	-	-	-	-	1

CS=Community Surveillance, HR=Hospital Records, PR=Police Records

Among 11 cases, 5 were identified only from community-based surveillance, 3 cases were recorded from the hospital records and 3 cases were reported from both sources. Thus, it indicates the marginal ability of community surveillance (CS) in obtaining additional data on attempted suicide and suicide which would have been lost if only obtained from the formal records.

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Learning and Opportunities:

- Project was well received and accepted within the community.
- Engagement with the diverse local stakeholders added strength and credibility to the surveillance system.
- The implementation process was smooth due to the engagement of the MHV who acted as the bridge between the community and the local health system.
- The surveillance process was easy, takes very less time, and thus could be easily accommodated within the working schedule of the MHV.
- The triangulation of the information across multiple data sources added rigor and quality to the process.

Conclusions and Recommendation:

The pilot study concluded that suicide attempts/suicides are under-reported, and people have lack of awareness about the importance of reporting suicide cases due to fear and stigma attached to the suicide. Some recommendations can be drawn based on the findings:

- Large scale community surveillance is needed to capture proper reporting of the suicide attempts/suicide.
- Community-based intervention is needed to make people aware of the preventive measure for suicide (like community banks for tackling death by poison).

References:

Pathare, S., Shields-Zeeman, L., Vijayakumar, L. et al. Evaluation of the SPIRIT Integrated Suicide Prevention Programme: study protocol for a cluster-randomised controlled trial in rural Gujarat, India. Trials 21, 572 (2020). https://doi.org/10.1186/s13063-020-04472-2

UN, 2015. Transforming our world: the 2030 Agenda for Sustainable Development.

World Health Organization, 2014. Preventing suicide: A global imperative. Available online: http://www.who.int/mental_health/suicide prevention/world_report_2014/en/

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