

A Multidisciplinary Public Health Approach through Community Engagement in COVID-19 Prevention and Control - A Proposal for Bhadradi Kothagudem District in Telangana State

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ABSTRACT

With pandemic involving different forms of disease burden on the public in terms of accurate information, treatment, care and precautions it is a necessity to promptly utilise conventional and innovative approaches in disseminating health related services and information via a community centric approach for prevention and control of COVID-19 and building community resilience. Advantage of community engagement is that it involves groups of people belonging to one geographical area who can actively engage in implementation of health initiatives and also report concerns over health services which could help in making effective and innovative strategies to minimise impact of COVID-19. Therefore a team of multidisciplinary health professionals collaborated in framing a four pronged strategy involving communication methods like IEC, BCC and SBCC to disseminate key messages for motivating and sustaining positive health behaviour among people.

Keywords: IEC, BCC, SBCC, ASHA, ANM, SDG

INTRODUCTION

Novel coronavirus SARS-CoV-2 causing the infectious disease COVID-19 led to an outbreak at Wuhan, China which has grown into pandemic affecting nations globally. The rapid increase in the number of infected people followed by deaths and lack of preparedness necessitated governments, international organizations, healthcare workforce, civil society and general public at a global level to commit in prevention, control and treatment of COVID-19. ^[1]

A high COVID-19 mortality in the younger population of India prompted

everyone to focus on preventive measures like social distancing, hand hygiene, double-masking, vaccination and lockdown to reduce the risk of infection and possible casualties. Based on the experience of management of COVID-19 pandemics in USA, Italy, Spain, China, and many other fatally affected countries including India, it has become quintessential for India to adopt new strategies for increase in testing, surveillance, vaccination, medical care, ventilators and classification of infected patients with comorbid illness which will improve the chances of survival from COVID-19 infection while continuing

practice of social-distancing to prevent further spread of the pandemic. Additionally, documenting of data on similar age-groups based on COVID-19 positive cases, recovery and fatalities aids in identifying most vulnerable age-groups and designing better strategies for response and preparedness.^[2]

COVID-19 experiences in Telangana State observed mortality and severity rates higher among males than females. Comorbidity was observed mainly due to hypertension and diabetes mellitus pertaining to high risk and mortality.^[3] By the end of June 2021, the daily positivity rate of COVID-19 infection in the State was observed to be around 0.9%, case fatality constant at 0.58% against 1.3% at the national level, cumulative positivity rate stands at 3.43% and recovery rate stands at 96.82% against 96.58% at the national level with a total of 1,80,07,658 tests done in the state since March first week last year.

By the end of June 2021, there around 108 active micro containment zones in the state with a highest 20 in Bhadradri-Kothagudem district.^[4] Parameters like, no lockdown, 50 percent lockdown and 75 percent lockdown in the state led to decrease in positivity rate of COVID-19 infection and provided optimum time for the policymakers to increase hospital beds, oxygen capacities to meet the influx of cases once lockdown restrictions eases.^[5] While the lockdown was able to bring down the COVID-19 caseload in the state, certain districts reported an increase in caseload of districts including Bhadradri Kothagudem.^[6] Plan and special attention was proposed by officials to check the spread of COVID-19 in few districts including Bhadradri-Kothagudem based on COVID-19 situation, tests, positivity rate and bed occupancy in the hospitals as villages and specific areas in the districts reported more cases.^[7]

Lack of authentic health information is one of the major barriers for timely access to health care services. Many National Health Programs consist of IEC as a health education component yet it lacks in reaching

the masses. Access to health information in local dialects and language is confined to limited sources of communication resulting in lack of knowledge, fake news spreading myths, vaccination hesitancy among the public. Generally, IEC for health programs is conducted at the district level, village level by ANMs and ASHAs. Due to overburden of COVID-19 responsibilities priority to these IEC activities remains neglected.^[1] Shortage of trained and skilled health workers also add to the existing health burden.

The pandemic across the world has prioritised the importance of screening and testing, isolation, quarantine, containment zones, social distancing, use of masks, hand hygiene, vaccination and respiratory etiquette to prevent and control COVID-19.^[8] Communication methods like IEC, BCC and SBCC provide health information to promote positive health behaviour, to create a conducive environment, to initiate and sustain the behaviour and to influence communities by understanding their needs, preference of communication methods, perception of issues, social attitudes and behaviour.^[9,10] Strategies and campaigns involving the public in accomplishing planned interventions can bring desired behaviour change, motivation in an easy and feasible way while protecting themselves and communities at large. Planned interventions require a multidisciplinary approach to frame key messages to be disseminated by trained health volunteers or frontline workers to reach the target audience in a simplified way which every individual can comprehend, guide others and put them into practice.^[11]

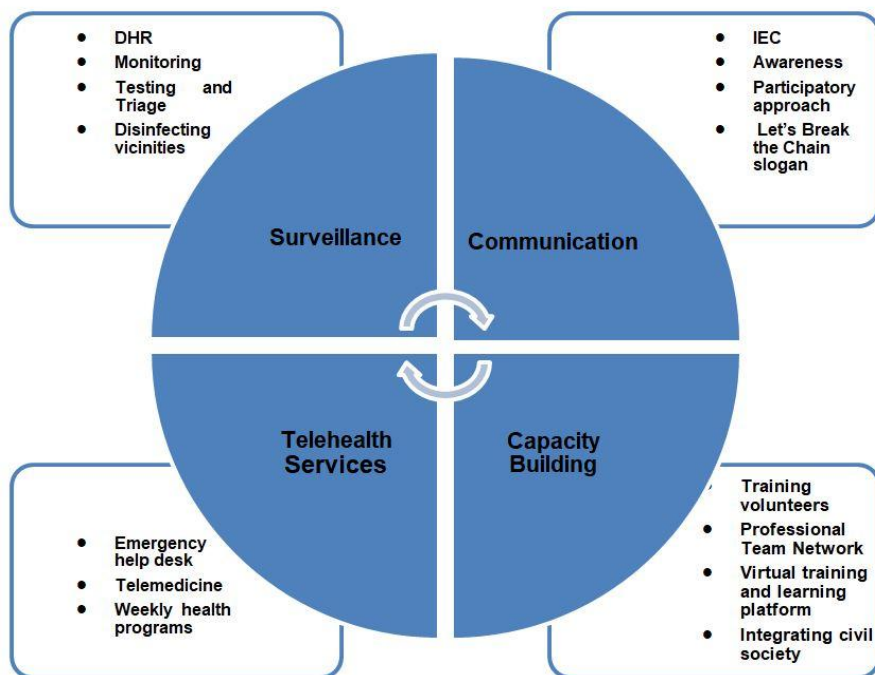
Strategy

A four pronged strategy was developed to the residents of Bhadradri Kothagudem district involving target beneficiaries as COVID and Non -COVID patients, general public, pregnant mothers, children, elderly and people with co-morbidity conditions under a team of government officials, health officials,

doctors, epidemiologists, Statistician, NGO representatives, information technology professionals, volunteers. As per 2011 census, number of households in the district are 48094 with 188191 population. [12] Considering 1000 households as one cluster

makes it feasible for volunteers and health officials to collect data, identify hotspots and to implement initiatives and interventions in preventing spread of COVID-19 infection.

Four pronged strategy



Description of Activities

1. Surveillance:

- Creating a digital district health record (DHR) where health status of individuals is updated which will be reviewed by health officials to analyse disease burden
- Based on weekly reports of DHR risk of co-morbid conditions, infectious diseases can be identified and necessary precautions delivered to the individuals
- Volunteers from the wards gets designated with respective households (1 volunteer for 100 households) where they monitor daily health status and enter in DHR
- Volunteers act as bridge between residents from wards and ANMs, ASHAs for reporting any COVID-19 symptomatic or asymptomatic cases to proceed for timely testing, treatment and contact tracing

- Establishing a dashboard at district level, with key indicators like incidence, number of tests, positivity rate, bed occupancy, ambulance availability, oxygen supply will assist public to access without delay.
- The dashboard data can be utilised to analyse blocks or clusters by identifying hotspots and initiating preventive approach like disinfecting vicinities where positive cases reported along with weekly sanitation drive
- Surveillance can include pharmacy records, data from private practitioners and CT scan centers.

2. Communication:

- Developing Information Education and Communication material on COVID-19 prevention & control and disseminating through mass media, social media, radio jingles, street announcements, posters,

wall painting, pamphlets and billboards at traffic signals.

- Volunteers for designated households forward updates on district health initiatives through mobile phone messages, WhatsApp, phone calls and pamphlets to alert localities on authentic and verified health information
- Promoting good health behaviours among localities through participatory approach among different age groups by conducting ice breaking games, weekly online quizzes, painting or creative art, poster making and photography on COVID -19 prevention ways and approaches like use and disposal of mask, doffing and donning of PPE, safe management of Bio medical waste at household, vaccination, nutrition and others
- Providing participants in weekly programs with digital certificates and rewarding winners of contests by digital badged certificate or announcements in weekly radio or local mass media health interaction program
- Imparting the slogan “Let’s Break the Chain” among public in the district with the motto of collective consciousness “Together We Can” by promoting four way approach to break the chain of infection – Hand washing & sanitizing, double masking, Social Distancing and Vaccinating (public can use “Break the Chain” slogan for alerting people without mask or not following social distancing at various public spaces, police can use the slogan to be pledged for lock down violators)

3. Telehealth Services:

- Initiating ‘Emergency Help Desk’ as one stop solution for COVID-19 care, or any health emergency by connecting 104, 102 services, ASHAs, ANMs, hospitals, diagnostics for prompt response from trained team in guiding available health services, access, information so as to avoid delay in

treatment or care and facilitating platinum 10 minutes and golden hour

- Initiating telemedicine by connecting doctors with specialization ^[13] and providing free consultation to the public on Non-COVID health issues to avoid exposure to nosocomial infections
- Organizing weekly health programs involving doctors over radio or mass media on interacting with public by creating awareness and clearing queries on COVID-19 and on priority public health services which include, newborn care, maternal health, childhood immunisation, Tuberculosis & HIV, Dengue & and other vector-borne diseases.
- Volunteers collect various health queries from designated households and represent in the web based application under respective categories which are framed into common queries to be cleared by doctors in weekly health program

4. Capacity Building:

- Building a network of volunteers preferably graduates and training them in monitoring and reporting health status of designated households and continued follow-up to concerned authorities and data entry in district health record
- Building an information team to organise, create and diffuse reliable health information and to prepare IEC material accordingly
- Training volunteers to disseminate IEC material to designated households, collect various health queries and categorize them in the web based application for weekly health program
- Building a dedicated team consisting of doctors, nurses, health workers, health professionals, information professionals, lab technicians, pharmacists, NGOs, public representatives, journalists to review ongoing district initiatives, finding gaps in health service delivery, surveillance, and screening thereby provide necessary interventions in

combating COVID-19, co-morbidities, seasonal infections, NCD risk factors, maternal and infant mortality^[14]

- Coordinating doctors in the district for telemedicine services and weakly health program to assist public in availing hassle free healthcare services
- Organizing virtual training and learning platform^[15] for health professionals by organizing lectures, interactive exercises, presentations, providing information on available open courses or collaborating National or State Institutes of Health & Family Welfare for capacity building and developing skills for implementing proved interventions in community setting^[16,17]
- Integrating voluntary organisations, civil society who come forward in food distribution to COVID patients, ration kits to poor households, PPE distribution and other charity activities
- Professional team with doctors and other health professionals look COVID-19 status and disease burden from DHR and also assess knowledge, attitudes and practices^[18] of communities based on the queries from weekly health program queries, accordingly provide feedback to information team for creating IEC and to the officials for discussing on necessary interventions or any newer initiatives or progress on current initiatives as required.

CONCLUSION

With volunteers appointed for designated households health information becomes more feasible and accessible to the public which increases response to reporting of symptoms, ANM, ASHAs visits, testing, vaccination, triage coordination, early recognition, recovery, and source control decreases morbidity and mortality due to COVID. Weekly sanitation drive by disinfecting vicinities curtails viral load in air. Community engagement involving groups of people in one geographical area as cluster groups engaging them actively in implementation of health initiatives and

reporting concerns over health services can be effectively addressed to minimise impact of COVID-19. Health promotion activities like weekly health programs, telemedicine, help desk, district initiatives, community participatory approaches develops health literacy, health education, practice of good health behaviours in public and motivate them to take informed decisions. Break the chain slogan campaign through mass media, social media and other IEC strategies engages the public in active participation, collective support for following four way approach to prevent COVID in their homes and in public spaces overall every individual collectively participating in making “COVID Free District”. Health data from DHR can be integrated with various national and state health programs like IDSP, RMNCHA, NCD, Nutritional programs and others. Project helps in identifying COVID rate and disease burden in the district which further helps in identifying social determinants of health, demography, risk factors based on which planned or proven intervention be applied and reach targets of SDG, national and state health targets. Feedback from public and health workers could help in developing effective and innovative strategies and make community engagement more inclusive.

Effective implementation of the above-suggested strategies in the short term and medium term will certainly reduce deaths, spread of disease and prepare the health system for future outbreaks. The current situation calls for all stakeholders for strong involvement, including the community, to work in synchrony to eliminate COVID-19. By principle, providing the population with health information aimed at health promotion and disease prevention should yield the greatest effect to flatten the curve and prevent the healthcare system from collapsing.

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