



SINDH
INTEGRATED EMERGENCY
& HEALTH SERVICES



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**PROPOSAL FOR
ASSESSING DISASTER PREPAREDNESS IN CMAM
SURGE FACILITIES: A FACILITY-BASED SURVEY
IN SINDH, PAKISTAN**

**CONTINUE PILOTING AND UPSCALING CMAM SURGE APPROACH
A STEP TOWARDS HEALTH SYSTEM PREPAREDNESS IN SINDH PAKISTAN**



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1. Introduction

In Sindh, Pakistan, acute malnutrition continues to be a serious public health concern. According to the Integrated Food Security Phase Classification, over two million children in flood-affected areas of Pakistan are suffering from acute malnutrition in the aftermath of the 2022 flooding. The Districts of Tharparkar fall into the category of very critical Phase 5 classification of acute malnutrition cases. (Integrated Food Security Phase Classification, 2023) which indicates that 30% or more children are acutely malnourished, widespread morbidity, and/or very large individual food consumption gaps are likely. (Classification) For stepping up treatment during emergencies and seasonal peaks, the Community-based Management of Acute Malnutrition Surge Approach (CMAM Surge) presents an encouraging approach. However, adopting health facilities with strong disaster risk reduction (DRR) protocols is necessary to ensure the success of CMAM Surge. This proposal describes how a facility-based survey would be conducted by SIEHS to evaluate DRR readiness at twelve health facilities and one Nutrition Stabilization Centre in the Districts of Tharparkar in the province of Sindh.

2. Demography of Tharparkar

2.1 Population Dynamics

Tharparkar is the largest district in Sindh, with a total population of 1.65 million which is 3.4% of Sindh's population, comprising 54% males and 46% females whereas the Taluka Chachro in the District Tharparkar, has a population of 351,263. The population density of Tharparkar is 83.87 per square km, and the average household size of 5.4. (Statistics, 2017). According to the UNDP, 87% of the population there lives in poverty. (Multidimensional Poverty in Pakistan, n.d.). Tharparkar has the lowest Human Development Index in the province of Sindh which is 0.277 (Najam & Bari)

2.2 Access to Safe Water and Sanitation

Only 76.7% of households in Tharparkar have access to improved sources of drinking water as compared to 96% in Sindh. Only 25.5% of people there have access to improved sanitation while the prevalence of open defecation is 48.5%, which is alarming. (UNICEF & Bureau of Statistics, Government of Pakistan, 2021)

2.3 Health Facilities

2.3.1 Health Facilities, availability of Beds, and Healthcare Provider-to-Patient Ratio

There are a total of 100 health facilities including Governmental, Departmental, Private, and Local Bodies with a capacity of 293 beds only as compared to 648 hospitals and 30,126 beds in Sindh. Facilities include 40 BHUs with a capacity of 93 beds as compared to 800 BHUs in Sindh with a capacity of 1615 beds. There is a total of 2 RHCs with a capacity of 20 beds as compared to 133 RHCs in Sindh with a capacity of 1703 beds. There are a total of 307 dispensaries, 1 TB Clinic without any beds, 6 Mother and Child Health Centers without any beds, and 3 Maternity Homes. In short, 3,892 beds per patient, 1 doctor per 6,472 patients, and only 1 Nurse for 69,217 patients. (UNICEF & Bureau of Statistics, Government of Pakistan, 2021)

2.3.2 Obstetric, Ante-Natal Care and Post-Natal Care

40% of all institutional births are made up of infants delivered in public health facilities (24%) and babies delivered in private health facilities (16%), which is less than the 70.1% of institutional deliveries in the province. In Tharparkar, the percentage of home deliveries is 48.7%, whereas in Sindh, it is only 29.0%. 52.4% of women (15-49 years old) in Tharparkar had antenatal treatment at least once from qualified medical professionals, compared to 76.7% in Sindh. 49.2% of women reported getting health checkups at home or at a facility after giving birth as opposed to 56.5% in Sindh. Only 49.2 percent of the newborns were checked by a healthcare provider either at home or at the facility following the birth as compared to 56.4 in Sindh. (UNICEF & Bureau of Statistics, Government of Pakistan, 2021)

2.3.3 Prevalence of Stunting, Wasting, and Childhood Mortalities

50.6% of children under 5 years of age are stunted (moderate or severe) 52.9% are underweight and 25.7% are wasted as compared to only 14.8% in Sindh. Neonatal Mortality in Tharparkar is 34/1000 live births, Infant Mortality is 49/1000 live births and Under-Five Mortality is 58/1000 live births. (UNICEF & Bureau of Statistics, Government of Pakistan, 2021)

2.3.4 Immunization Coverage:

The immunization coverage for basic antigens for children (12-23 months of age) in Tharparkar is 65.1% as compared to 43.8% in Sindh. (UNICEF & Bureau of Statistics, Government of Pakistan, 2021)

3. What is Sindh Integrated Emergency Health Services and what we do?

- SIEHS is a section 42 not-for-profit company formed in collaboration with the Government of Sindh. We are an integrated health service running operations with more than two thousand employees in the province of Sindh, providing pre-hospital services to the community via fully equipped 371 ambulances, more ambulances to be provided soon by the Government of Sindh.

- We have state of the art training academy with qualified trainers aligned with the international standards of medical protocols and patient care.

- Patients inside the ambulances are assessed and managed by Emergency Medical Technicians (EMTs), fully trained with international guidelines to deal with any kind of medical emergency, under the supervision of a doctor for the safe transfer of patients.

- We also provide 24/7 Tele-Tabeeb services where anyone can call for health assistance and general health advice.

- We are also providing mortuary van services for the dignified transfer of the deceased person.

3.1 Sindh Integrated Emergency and Health Services Strengths for this Survey

SIEHS possesses a compelling synergy of resources and experience that uniquely positions them to conduct a comprehensive and impactful facility-based survey on DRR for the CMAM Surge program in Sindh. This synergy stems from several key factors:

- **Integrated Health Services Platform:** SIEHS is working on integrated health principles. Currently providing **pre-hospital care** to the community by providing safe transfer to hospitals. It is also serving the community with **24/7 Tele-Tabeeb** services where on-call health advice is provided including general health advice, mental health counseling, family planning counseling, arrangements in the hospitals, etc. SIEHS is serving the community for the prevention of diseases and serving an active role in community engagements and health promotion via various platforms and on-field medical camps. **SUKH program** was another initiative for the upscaling of family planning, and maternal, and child health.

- **Extensive Ground Presence and Network:** Overall 35 stations are situated throughout the province and in Tharparkar, currently, 8 ambulances are carrying out day-to-day operations, and one station is functional to manage emergencies. Local staff embedded within the District of Tharparkar, allow greater community engagement, and communication which foster trust and encourage participation by health facility staff, leading to richer and more reliable data through culturally sensitive engagement. The native staff deployed in ambulances are well-known about the locality and geography which ensures rapid mobilization and effective data collection during the survey.

- **Proven Crisis Management Expertise:** SIEHS has a well-structured and comprehensive Disaster and Emergency Response System in place which is routinely executed. With an impressive history of managing more than **65,000 cases of COVID-19 during the pandemic in 2020** across the province and the **devastating floods of 2022** where it proved its competency in Emergency and Disaster Response and managed to serve **152 Camps in 19 flood-affected** districts of Sindh and treated 60000 plus victims within SIEHS ambulances. The Nawabshah train collision incident was also catered effectively and timely by SIEHS. We have proved our strong commitment to crisis and emergency disaster management.

- Sindh Human Capital Investment: 1000 Days Integrated Health and Population Program and Scope of SIEHS In the Project: SIEHS is committed to improving maternal and child health in the province of Sindh. We have collaborated to work on one thousand days projects in which we will be providing:

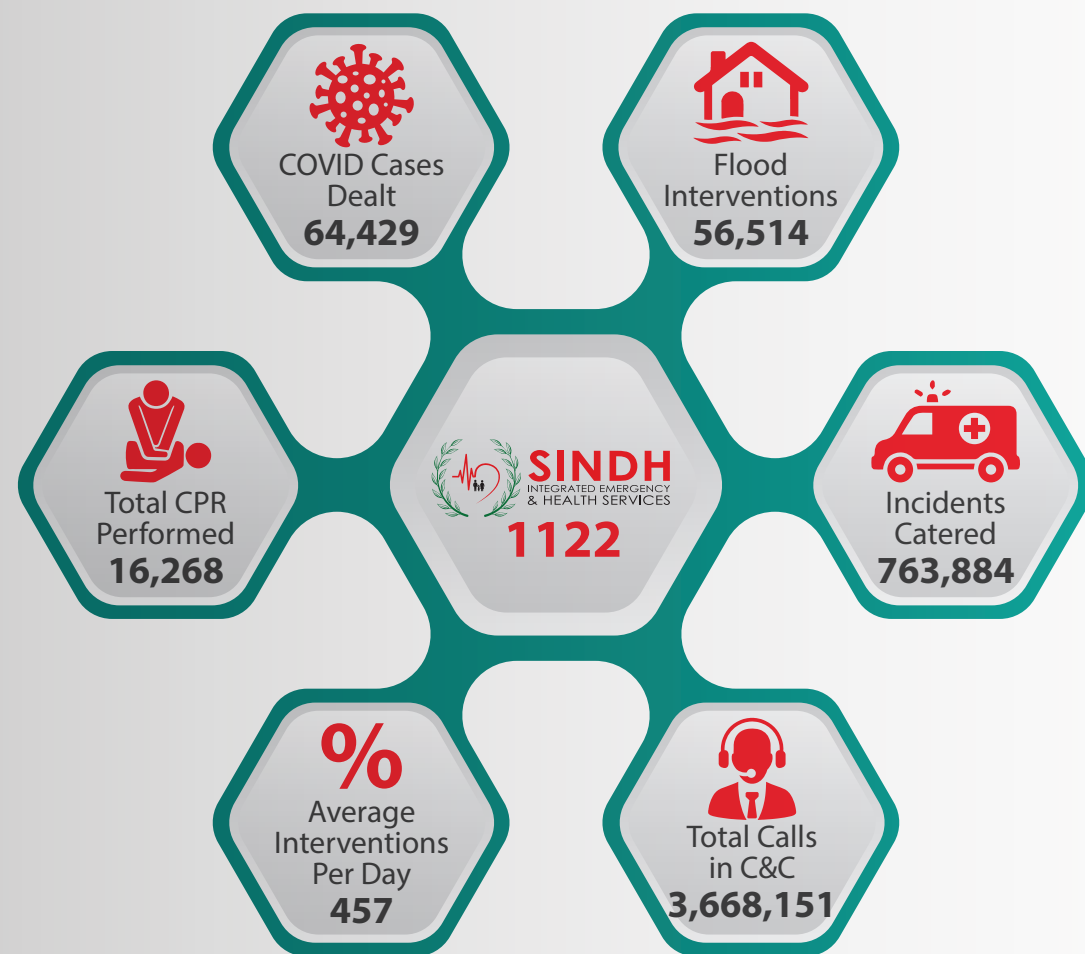
- **150 ambulances** will be deployed across Sindh for rapid and seamless maternal and child referrals, bridging gaps in access to critical healthcare services, particularly in remote areas.
- **30 mobile clinics** will bring essential healthcare directly to underserved communities, providing preventive care, and basic treatment services close to home reducing the burden of tertiary care hospitals and unnecessary hospital visits.
- **5 dedicated mobile vans** providing mobile diagnostic services directly to people, eliminating the need for travel and overcoming geographical barriers. They will be particularly beneficial for populations in remote areas with limited transportation infrastructure. Improved access can lead to earlier diagnosis and treatment, potentially saving lives and improving health outcomes.

- Leverage the power of **mass media messaging** across various platforms to raise awareness about key health issues contributing to overall health literacy and community empowerment.
- Implement a **telemedicine hub**. This will enable real-time consultations, remote diagnosis, and improved decision-making, optimizing healthcare resources and accessibility in geographically dispersed areas.

■ **Data-Driven Approach and Expertise:** SIEHS has a well-established state-of-the-art database system called "HES" which is expandable and scalable. We have the expertise to manage and analyze data, keeping the data confidentiality protocols in practice making us stand out not just for its comprehensive emergency and health services, but also for its robust data-driven approach. This approach empowers them to make informed decisions, optimize resource allocation, and ultimately, improve health outcomes for the community.

■ **Strong Stakeholder Collaboration and Advocacy:** SIEHS' established partnerships with government agencies, NGOs, and local communities create an extensive network for collaboration and knowledge sharing, enabling effective dissemination of survey findings and advocating for policy changes based on actionable insights.

■ **Research Expertise:** SIEHS has experienced and qualified experts in public health with research experience. Currently, SIEHS is undertaking a research project known as "**FEAMER PROJECT**" in collaboration with **Weill Cornell Medicine, New York, NY, Aga Khan University, Karachi, Pakistan, and Johns Hopkins University, Baltimore**. This study can contribute to potentially saving thousands of children every year through the addition of teleconsultations in ambulance service, and by addressing an expertise gap occurring in the most critical minutes of a child's transport to a fixed emergency care facility.



4. Survey Objectives

- To evaluate the current status of Disaster Risk Response (DRR) with a focus on the CMAM Surge approach in the twelve health facilities, specifically in the district of Tharparkar, Tehsil Chachro, Sindh.
- Identify the strengths, weaknesses, gaps, and challenges pertaining to the infrastructure, human resources and their capabilities, and the resource allocation in the selected health facilities.
- Dissemination of the findings with the relevant stakeholders and development of targeted interventions/recommendations to upscale the DRR in CMAM Surge facilities.

5. Activities and Methodology

- Meeting with the District Health Officer and analysis of relevant stakeholders for an introductory session, provision of focal persons for the cross-communication and correspondence of the survey.
- Tool development for data collection after consultation with the stakeholders.
- Hiring of enumerators and their training based on the developed tool.
- Pilot testing of the tool and monitoring and evaluation simultaneously to identify gaps and challenges.
- To ensure robust data collection, we will utilize a hybrid approach, employing paper forms as a reliable backup alongside tablet surveys depending upon internet connectivity.
- Revision of tool based on the stakeholder's feedback and pilot testing and subsequent training.

- Data collection from the twelve health facilities and 01 Nutritional Stabilization Center. Monitoring of data collection processes by the supervisor to ensure quality of data collection.
- Data analysis and report development.
- Sharing the raw results and findings with the relevant stakeholders and final report development.
- Dissemination of the final report with the District Health Officer and the relevant stakeholders.



6. Timeline of the Project

| Activities | Timeline 0-15 Days | | | | | | | | | | | | | | | | |
|--|--------------------|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| | Day | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Signing of the Project | █ | | | | | | | | | | | | | | | | |
| Meeting with Local District Health Officer, identification, and meeting with relevant stakeholders for planning and tool development | | █ | █ | █ | █ | █ | | | | | | | | | | | |
| Hiring and Training of the enumerators | | █ | █ | █ | █ | █ | | | | | | | | | | | |
| Pilot Testing at a health facility and identification of the gaps | | | | | | | █ | █ | █ | █ | █ | | | | | | |
| Identification of Gaps and Final Data Collection | | | | | | | █ | █ | █ | █ | █ | █ | █ | | | | |
| Data Analysis and Draft Report Development | | | | | | | | | | | | | | █ | █ | █ | |
| Draft Report Presenting Survey Findings with the Stakeholders | | | | | | | | | | | | | | | | | █ |
| Final Report Development and Dissemination | | | | | | | | | | | | | | | | | █ |

7. Possible Challenges During the Survey

Geographical:

Remote locations and access to the health facilities of Tharparkar. SIEHS already runs day-to-day pre-hospital emergency care services in these districts and is well-known for its geographical landmarks and transactions.

Stakeholder coordination:

Collaborating effectively with various stakeholders (health department, local government, communities, and private organizations such as PPHI. Lead consultants of SIEHS have effective communication and relations with government as well as non-governmental organizations working in these districts. SIEHS' leadership has frequent dialogue and cross-communication with DCs and DHOs, which is another strength of SIEHS.

Cultural and Language Barriers:

To guarantee community acceptability and involvement, data collection professionals in these areas must be culturally and linguistically acceptable. We may encourage higher acceptance by using our ground power as a local language-speaking staff is readily available.

Survey instrument Effectiveness:

Adapting the survey instrument to the specific context of Tharparkar and Umerkot, including addressing local variations in DRR practices and challenges, is crucial for accurate data collection. Therefore, the survey tool will be prepared after a thorough review with the local stakeholders.

8. Budget

Submitted in a separate envelope.

9. Meet the Team: A Collaborative Force for Insightful Research

■ Dr. Zeeshan Noor Sheikh - Team Lead

Dr. Zeeshan Noor Shaikh, a medical doctor, joined SIEHS in February 2023. He has 15 years of diverse experience in teaching and practice of public health. He has done Masters in Public Health from the University of Melbourne Australia through the Australia Awards Scholarship. He was honored with an Honorary Lectureship in Faculty of Medicine, School of Public Health in Imperial College London. He won the Australia Awards Scholarship (2010), the Charles Wallace Fellowship (2014), and the Australian Alumni Excellence Awards for Governance and Community Development (2016). He has diverse experience in the practice of public health. He has worked in TB with Global Fund, in nutrition projects with DoH, GoS, World Bank and World Health Organization, in Polio with DoH, GoS and W.H.O. His last affiliation was with PPHI Sindh as Project Director where he was leading multiple projects in the health and nutrition sector. In PPHI Sindh, he was leading nutrition projects like PINS (ER-2), BISP Nashonima and flood response. He has experience of working with different donors World Bank, EU, UN Organizations, Global Fund and USAID. He is currently, Chief Operation Officer and Chief Technical Officer in Sindh Integrated Emergency and Health Services.

■ Other team members include

- Lutuf Ali Mangrio
- Dr. Kamran Idris
- Dr. Arshia Khan



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