the past three decades in India. The initial experiments' started in 1981 with a circus tragedy and documentation of prolonged grief reaction. In the Bhopal gas tragedy (1984) mental health services were integrated through primary care doctors. The Marathwada earthquake (1991) involved primary health care personnel in provision of mental health care to the survivors. The Orissa super cyclone (1999) saw the emergence of psychosocial support to the community using local resources like community level workers who were survivors by themselves. The feasibility study involving 40 such workers was expanded to a pilot model with 400 workers in the Gujarat earthquake (2001) and later to the level of a District model in the Gujarat riots (2002). These developments paved way for the State model when Tsunami struck the eastern coast of India affecting three States and two Union Territories in India. The experiences and experiments led to the development of standardized capacity building tools and intervention kits with level and limits of care being addressed. The Indian experiences has seen a striding change from psychiatry paradigm to public health model, to the development of a standardized psychosocial support models involving community at large. The lesson learnt has been helpful in developing the National Guidelines on Psychosocial Support and Mental Health Services by the National Disaster Management Authority of India. These service models could be adapted to the developing South East Asian countries where there is a paucity of trained professionals to attend the needs of the survivors.

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(A15) Trauma Signature Analysis: Evidence-Based Guidance for Disaster Mental Health Response

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Introduction: The first decade of the 2000s has advanced the field of mental health and psychosocial support (MHPSS) in disasters by providing expert consensus guidance. Nevertheless, MHPSS response to major disasters is frequently uncoordinated and rarely based on scientific evidence. Moreover, MHPSS response is not customized to the unique constellation of stressors and psychological risk factors that distinguish each disaster event. To address this lack of science and specificity, we have developed trauma signature (TSIG) analysis.

Methods: TSIG analysis consists of the following steps. Risk factors for disaster-related psychological distress and psychopathology (e.g., PTSD, depression) are continuously documented, updated, and refined. When disaster strikes, situation reports (sitreps) are issued in the early aftermath. We examine initial sitreps to determine the presence and intensity of evidence-based risk factors, subsumed under the headings of exposure to hazards, loss, and change. We estimate the size of the affected population. We rapidly create an initial TSIG and translate findings into actionable guidance regarding probable MHPSS needs for services and personnel.

Results: We have constructed TSIGs for prominent 2010 disasters: Haiti earthquake, Deepwater Horizon oil spill, and Pakistan monsoonal flooding. Psychological risk factor profiles contrast sharply across these three salient events. Regarding exposure to hazards, numbers of persons experiencing physical injury and perceiving threat to life are highly divergent. Losses differ dramatically when quantified in terms of deaths, numbers bereaved, homes and livelihoods lost, and economic toll. The degree of lifestyle and societal change, including displacement, lack of survival needs, lack of security, and interpersonal violence, also differentiates the psychological impact of these disparate events.

Conclusion: TSIG analysis can be used to provide rapid post-impact/pre-deployment MHPSS response guidance based on risk factor assessment. Using TSIG analysis, MHPSS response can be tailored and timed to the defining features of the disaster event.

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(A16) Using Geographical Information Systems in Road Traffic Injury Research: A Case Study of New Mumbai, India

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Introduction: A multidisciplinary approach with Geographical information systems, Public health and Social science inputs was adopted to survey the fatal and non-fatal traffic crash events in the New Mumbai municipality region in Western India to identify the risky zones on the arterial highways.

Methods: A Standardized questionnaire was used to collect event data about the time, date, day of the week, location, type of injury, and vehicle type involved in the accidents, from the police station records. The data for the time period of January 2009 to July 2010 was merged into ESRI's ArcGIS software as attribute data. All the crash sites were georeferenced into the base map (with the major road networks of the region) by using a GPS receiver.

Results: Analysis was done for Hot spot identification along the major highways, number of accidents, number of fatalities and injured, case-fatality ratio and number of accidents with only financial loss. Further, the role of environmental, geographical, sociological and constructional factors was highlighted on the locations of the RTC. These roadway factors, weather, population density, road conditions, profile of the injured and healthcare access was studied. Majority of RTCs occurred during normal weather and road conditions, during daylight and on dry roads. All the analyses and interpretations were done within the ArcGIS software environment and classifying RTCs according to the attributes on the Geodatabase gave significant results.

Conclusion: Spatial analysis using GIS for Road Traffic Accidents to identify hot spots to identify high risk zones in the region enables policy makers to design injury prevention strategies for RTCs. In India, further GIS-based research is needed for planning access to emergency health care, to determine environmental-related causes, developing Injury