

EXPLORING THE HEALTH BELIEFS OF INDIVIDUALS EXPOSED TO METHYL ISOCYANATE DURING THE UNION CARBIDE DISASTER 20 YEARS AGO IN BHOPAL, INDIA.

J Jeffrey, J Sztain, S Sarangi, T Kuo, David Geffen School of Medicine at UCLA, Los Angeles, CA.

INTRODUCTION: On the night of December 2nd, 1984 a leak occurred at the Union Carbide pesticide factory in Bhopal, India causing 40 tons of methyl isocyanate (MIC) to be released into the atmosphere over a period of two hours. The gas spread over an area of 8 kilometers. According to the Indian government 3,150 people died within three days of the MIC exposure. Another 150,000 people suffered long-term health problems. Many nearby residents still suffer varying degrees of impairment, including respiratory, eye, immune system, and gynecological complications. Twenty years later, the Union Carbide disaster continues to affect the people of Bhopal, as exposure to MIC through groundwater contamination remains a precarious public health problem. **METHODS:** During recent travels through India (by J.J. & J.S.), the two principal authors informally interviewed several physicians, ayurvedic medicine clinicians, clinic staff, and 20 patients from the Sambhavna Trust Medical Clinic in Bhopal. These interviews were conducted between July 12th and July 31st, 2005. Detailed travel diaries were kept to provide additional insights on living conditions in Bhopal, patient perspectives regarding the Union Carbide incident, and patient beliefs about their care and the effects of MIC on their long-term health. **RESULTS:** Recorded information from the travels suggests that patients overwhelmingly attribute their illnesses, such as acute intestinal upset with diarrhea, to the MIC exposure. Observed practices of provider and clinic staff also suggests that many patient beliefs about MIC exposure and their health are often affirmed by healthcare providers during the physician-patient interaction. Yet, the most common chronic illnesses observed during our team's visit of the clinic facilities were diabetes, hypertension, and anemia – common health conditions seen in clinics of both Modern and Third World countries. **CONCLUSION:** Patients may be more susceptible to illness due to suspected long lasting consequences of the MIC exposure. However, it is unknown what percentage of this morbidity is attributable to the lack of public health infrastructure instead, including the absence of refrigeration and a workable sewage system. Lack of education about the causes of illness often leads to overuse of rivers for trash disposal and elimination of wastes, which further contributes to morbidity among the general population residing around or near the old Union Carbide plant.