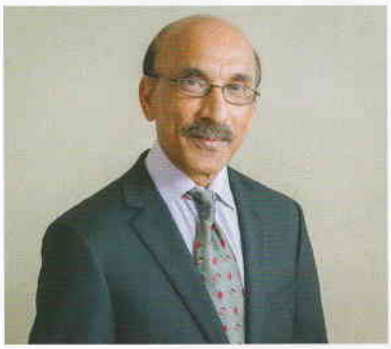
TOXIC CHEMICAL EXPOSURE OF FARMERS IN INDIA: PREVENTION STRATEGIES.

AAPI JagtialClinic distributes free protective gear



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India even today is a predominantly agrarian country, with a majority of the population dependent on agriculture for livelihood. Small farmers, who make up 70% of the cultivators, have little education, and limited resources. The start of the green revolution in the 1960's brought synthetic fertilizers and chemical pesticides to the farmers. Their use has skyrocketed in the last few decades. India now is a leading manufacturer of agro-chemicals. These are potentially toxins, which require careful handling and proper protection to avoid harm from inhalation and absorption from skin and mucous membranes. Across the globe more than 300,000 people die from acute toxic effects of exposure to these chemicals.

Pesticides are categorized as hazardous materials, but safety precautions are nonexistent. Government officials are required to train the farmers in the proper use but in practice it is the dealer who may give some instructions. There is little or no monitoring to check if any of the safety guidelines are being followed. The small farmer with little education cannot read the instructions, which are mostly in English. Safety gear gloves, facemasks, goggles and apron are not provided. In case of injury the local primary health care centers lack basic medications like atropine to treat exposure of eyes to the chemicals.. A toxic combination of lack of regulation, indifference of the government and the poor farmer's desperate desire to maximize yield with limited expense create a deadly situation. In 2017 in the state of Maharashtra 1800 hundred cotton farmers were hospitalized and nearly 50 died from toxic exposure to the pesticides Profenax and Cypermethrin.. These were preventable deaths if only the farmers were trained in proper handling of these chemicals and wearing of protective gear .

A 2013 report in the journal of Environmental science, toxicology and food technology in India reported that nearly 20% of the farmers stored the chemicals at home, 39% used bare hands to mix the chemicals, nearly half of them used the emptied containers to store other items in the house. Only 28% used some kind of protective gear.

AAPI preventive health clinic of Jagtial conducted a Rythu Rakshana (Farmer's welfare)camp in the village of Mothe in Telangana state on December 8 2017. It was to educate the farmers in the hazards of these chemicals and proper techniques for protection. They were also provided with personal protective gear kits containing sturdy gloves, facemask, goggles and apron. 200 kits were distributed.

It will take a coordinated and cooperative effort between government and NGO's to raise awareness of this easily preventable problem, educate the farmers, and provide subsidized or free protective gear kits. AAPI with its mission and liaison with Indian authorities can play an influential role in saving lives from needless tragedies like the one in Maharashtra last year

Reference. : Chemical use in farming and its health and environmental imlications.

Rakesh PS et all, Journal. Of Environmental Science, Toxicology and Food Technology.5: 2319-22402: 2013

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