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Suicides in India: Contribution of pesticides

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Self harm (suicide) rates in India have been rising over the past five decades. On an average, every year more than 100,000 Indians die due to self harm. The World Health Organization has recognized that suicide is an emerging and serious public health issue in India. In 2021, 164,033 Indians committed suicide a figure significantly higher.

Between 1987 and 2007, the suicide rate increased from 7.9 to 10.3 per 100,000, with higher suicide rates in southern and eastern states of India. The reported national suicide rate in 2021 was 12 /100,000, which has shown a significant rise.

In 2021, the maximum self harm cases were reported from Maharashtra, followed by Tamilnadu, Madhya Pradesh, West Bengal and Karnataka. Males are more at risk of committing suicide (75% vs 25%). Young adults in the productive years of their lives (18-45 years) accounted for 67% of total suicides. 'Hanging' (57.0%) was the commonest mode of self harm. This was followed by consuming 'Poisonous substances' (25.1%), 'Drowning' (5.1%) and 'Fire/Self- Immolation' (2.6%) as means/mode of committing suicide. The use of poisonous substances for committing suicide has gone up from 18% reported from 1999 till 2015 to 25% in 2021. Recent data suggest that pharmaceutical agents and household chemicals have taken over pesticides in the cities as agents of choice for self harm where as in rural area, pesticides still remain number one agent abused for self harm. Data from tertiary centers have shown that pesticide related mortality has comedown considerable. The main reason for the same could be better nonavailability highly hazardous agents, better supportive care and better transport services, resulting in early referral and access to definitive care.

Conclusions: In spite of multiple regulatory measures to ban hazardous compounds, pesticides remain the preferred agent abused for self harm amongst the larger rural population, where as in urban areas, pharmaceuticals/ prescription drugs have become preferred agents.