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Mid Day Meal Menace in Bihar: The Public Health Concerns of the Tragedy

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Abstract Discussions regarding the “Mid Day Meal” programme have many times been an issue of public health professionals in many different ways. Most frequently it is related to the issues of policy, implementation and impact of the same in different communities but discussions in the name of MDM tragedy or disaster may not be much. The issue in Bihar is really distressing in many different ways. It is an issue of great socio-political and public health concern which requires attention from either one of them. Death of 23 children after a Mid Day Meal contaminated with pesticide in Gandaman-Dharmasati Primary school of Chhapra District of Bihar is of great concern. This is a case of point source or common source epidemic as per the classical epidemiological terminology with high case fatality ratio (51.11, n=100) and high attack rate (45, n=100). Institution of proper food and nutritional surveillance system and strengthening the primary health system is of paramount importance in handling situations like this. In this article an attempt has been made to discuss the public health concerns and the associated socio-political issue on the basis of data obtained from the published news articles of various national dailies.

Keywords Bihar; Menace; Mid Day Meal; Tragedy

1. Introduction

The idea of supplementary nutritional support to the school children in the form of a social welfare concept roots back to 1925 when the Madras Corporation lunched it for the under privileged children. It was providing cooked food during that time and was introduced in a larger scale in 1960. Post independent Gujarat is the first state in India to start school lunch programme in 1984. However, it was only in 1995 that the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched at the national level [1]. Subsequently the Mid Day Meal programme became the part of the Minimum Needs Programme in the fifth five year plan [2]. Later on, the programme was revised and was called as Mid Day Meal Scheme in 2004. The main objective of the programme was to give boost to universalization of primary education and to impact the nutritional intake of students in primary classes [3]. Broadly speaking MDM is a developmental intervention and it encompasses two vital components of development one is primary education and the second is the nutrition as well as

health of school children for that matter. This is also linked with Millennium Development goals more specially the goal I (Eradicate extreme Poverty and Hunger), goal II (Achieve Universal Primary Education), goal IV (Reduce Child Mortality). Again nutrition is one of the most important indicators of health and plays a vital role in health from womb to tomb. This makes MDM an important topic for public health and is described as a nutritional intervention programme. The National Institute of Nutrition has developed a model menu for the preparation of school meals suitable for north and south Indians. Given the importance of MDM it is imperative that the programme should be implemented in proper manner to meet its desired goal. But the recent tragedy happened in Bihar draws attention from many segments including public health. Apart from the socio-political concerns the public health concerns are many in this context which have been attempted to delineate in the following sections. The broad objectives of this paper are to uncover the public health concerns and few recommendations to get rid of that.

2. Methodology

The data pertaining to this tragic incident were collected from news papers which published the news during the period of the incident. The data were primarily collected from the e-portals of the news papers. The news dailies used for this purpose were NDTV, The Hindu, Z News, Live Mint and The Wall Street Journal.

3. Discussion

Bhopal gas tragedy in India and Minamata disease in Japan are classical examples of point source or common source epidemic in public health text books but for a small village, in a primary school, death of 23 children following the consumption of contaminated Mid Day Meal is probably going to be the next example of point source epidemic. This is really a tragic case with high epidemiological indices, both the attack rate and the case fatality ratio. In one of the news paper article it has been mentioned that there were 100 students on 26 July 2013 [4] when the incident happened out of which 23 died and 22 got hospitalized so the case fatality turns to be 51.11 ($n=100$) and the attack rate is 45 ($n=100$).

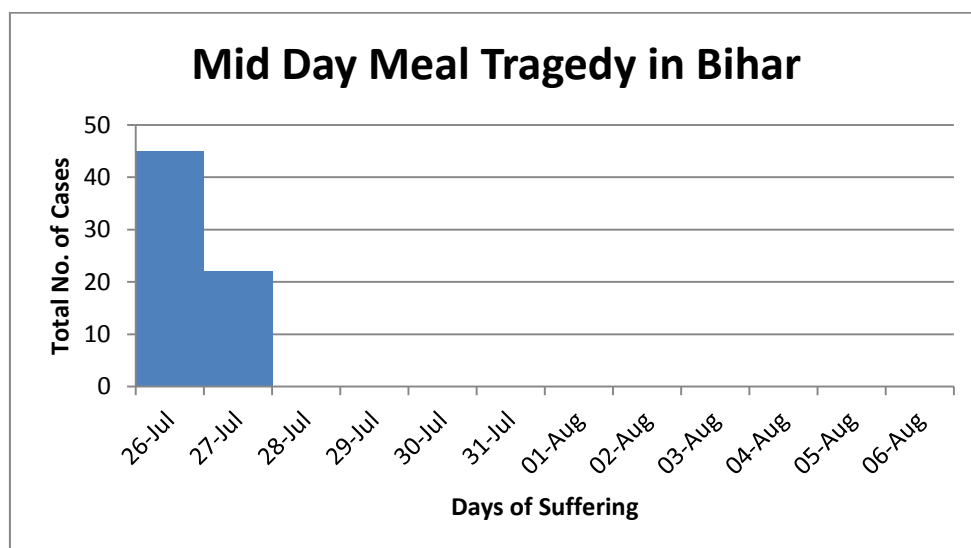


Figure 1: Mid Day Meal Tragedy in Bihar

The above figure depicts that the tragedy started on 26th July 2013 after the consumption of contaminated Mid Day Meal and 45 fell ill out of which 23 died and the rest got hospitalized and discharged on 6th of August 2013 as per the reports of various news dailies [5]. The report shows that

the cause of the food contamination is pesticide (may be deliberate or accidental). Here the major concern is the pesticide-laced Mid Day Meal which could have been prevented with proper precautionary measures. What is lacking here is proper food surveillance measure.

Food surveillance is essential for the protection and maintenance of community health which implies the monitoring of food safety and food hygiene. The WHO defines food safety and food hygiene as “all conditions and measures that are necessary during the production, processing, storage, distribution and preparation of food to ensure that it is safe, sound, and wholesome and fit for human consumption” [6]. Alma Ata declaration considered food safety as an essential component of food safety. It is clear from the definition that proper food hygiene could have stopped the menace. In the case of Bihar it is controversial that whether contamination happened intentionally or accidentally but from the public health prospective both the conditions are important and the food surveillance is the solution to it. There are several evaluation studies regarding the efficacy of MDM but here the condition is very basic i.e. the safety of the meals served which needs to be addressed first than the former. The Forensic Science Laboratory's (FSL) report in the Bihar's mid-day meal tragedy stated that high quantity of organo phosphorus pesticide was found in the food items that the children consumed. The Forensic Science Laboratory report found Monocrotophos, an organ phosphorous compound in the samples of oil from the container, food remains on the platter and mixture of rice with vegetables on Aluminium tasla (utensil). It is used as a pesticide for agricultural purposes; it is very toxic to human beings and other animals. This has created a huge havoc as the likelihood of the occurrence of such instances could be anywhere. The political pressure is growing in some of the states (Gujarat) to probe the issue and figure out the use such pesticides in the concerned states [7].

Another important public health concern is the provision of basic and primary health services. The primary health centre in Mashrak did not have adequate facilities to quickly reverse the effects of the poisoning; nor was there a fast enough means of transport to the district headquarters in Chhapra [4]. Many times we talk of accessible, acceptable and affordable primary health but what about availability, if it is not at our disposal the former three components hardly matters. As the first pillar of health care delivery primary health care system has a pivotal role in combating situations like this at their local level as per the situation and as per the scopes at their disposal.

The third important concern is the cost of Mid Day Meal. The per unit cost of midday meal fixed at Rs. 3.11 – Rs. 4.65 is unrealistic as even a bottle of drinking water costs Rs. 10. The Committee on Empowerment of Women had recommended in the Lok Sabha that per unit cost of mid-day meal being served in schools should be fixed on a more realistic basis. It also urged the government to regularly review the implementation of the scheme in terms of per unit cost, calorie contents and mode of preparation of midday meals [8]. This is what is called as nutritional surveillance which is defined as “Keeping watch over nutrition, in order to make decision that lead to improvement in nutrition in population” [9]. The basic objective of which is to aid long-term planning in health and development, to provide input for the programme management and evaluation and to give timely warning and intervention to prevent short term food consumption crisis [9, 10].

4. Conclusion

According to the Human Resource Development Ministry, the Mid Day Meal Scheme benefits around 10.44 crore children in about 12.12 lakh schools in the country. This is indeed huge in its form of delivery thereby it becomes imperative for a proper implementation and subsequent monitoring and evaluation of the programme. Again the millennium development goals to eradicate extreme poverty and hunger and to achieve universal primary education have made it an important programme in India.

The major limiting factor in this study is the use of secondary data as the entire article is based on the news paper findings and the author has not collected the primary data from the site itself.

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