Reviewer #1

**Comment 1:** This article overviews the epidemiology of poisoning in Poison Information Center, Ahmedabad.  This an intriguing article as little is known about poisoning in India and developing countries.  I think the major problem is that presented at the last of the article, the issue of the representativeness of the population.  In future studies the authors should evaluate ascertainment through comparisons with death certificates or other hospital admissions.

**Response:** Authors agree that there is an issue of representativeness of the population in this study. This was mentioned as a drawback of the study as well. However, the aim of the study was to describe only the epidemiology of poisoning cases reported to the poison information center. This data is important because poison information center is the only organization monitoring the poisoning cases in the particular region and no other sources are available for poisoning related epidemiological data. As the reviewer suggested, in future studies we will try to ascertain the poisoning with data such as hospital admission register and death certificate.

**Comment 2:** There are several issues, the first is that the case-fatality of 8% seems low.  Is it possible that you are missing deaths. In many societies if someone commits suicide, they may be signed out as a MI.

**Response:** The rate of death among the cases reported to poison information center is reported as 8.15%. Perceptibly, this is less than the expected case fatality rate due to poisoning. This might be because of the fact that the deaths happening before hospitalization and immediately after hospitalization are not being reported to the poison information center. Also, due to medico legal issues some suicides and death are not being reported as poisoning (example; signed out as MI). The text has been modified to reflect this point (Page 8, First paragraph in discussion line, 3-4 ‘This rate may be an underestimate because of under-reporting of deaths due to poisoining’).

**Comment 3:** I would like to see some pie charts, say of poisoning by youth, midlife and older as the patterns are likely quite different.

**Response:** Since the paper talks about the trend of poisoning in last 3 years, there is difficulty in depicting the data as pie chart. Representing all data with pie chart will substantially increase the number of figures in the final paper. However, as per the reviewer’s suggestion the number of poisoning cases in relation to the age (Fig 1A) has been presented as pie chart in the revised manuscript.

**Comment 4:** I was surprised that the was quite a few poisoning due to alcohol.

**Response:** Authors agree to the point mentioned by reviewer. This point has been discussed in the paper (Page 10, Para 1, lines 1-7).

**Comment 5:** Where are people getting access to the poisons?  Were there any repeat poisonings as this could be a means to prevent by focusing prevention program on those who already was poisoned.

**Response:** In the present study, 11.07% of the population was of agricultural workers and in 26.29% of the reported cases the poisoning was with insecticides used in agriculture sector. House hold chemicals like insecticides, rodenticides, phenyl, bleaching powder and mosquito repellents constituted 12.31% of the poisoning cases. These observations made in the study points that chemicals (Pesticides) used in agriculture, which are generally stored in home and responsible for poisoning. These points are described in the 3rd para of results section.

**Comment 6:** In the us much of the poisoning are due to prescription drugs. It would be interesting to analyze this further.

**Response:** Pattern of poisoning may vary from place to place depending on the socioeconomic factors, culture and so on. For example, household chemicals was major cause of poisoning in Delhi, India (Srivastava et al 2005., Reference No. 8). As shown in fig.2B medications/drugs is one of the cause of poisoning in the study population. However, unlike US, poisoning due to drugs is not the major reason of poisoning in India.

**Comment 7:** Could the increase be the result of increase awareness of the Poison Information center? How are people reported to the center, it it a passive system of the hospital reporting, or families reporting in?

**Response:** As of now we do not have any data to show that the increase is because of awareness about the poison information center. The Poison information center, Ahmedabad was started in the year 1993 and has MoU with major hospitals in the Ahmedabad for voluntary reporting of the poison cases. Physicians who treat the subjects report the cases to the poison information center and receive assistance for the diagnosis of poisoning.

**Comment 8:** What type of poison prevention systems has the center developed?

**Response:** The poison information center is engaged in the prevention of poisoning by dissemination of information related to poisons, management of poisoning cases, toxico-vigilance and education. This was not explained in the text as it is beyond the scope of the paper. Also, in the second paragraph of introduction the IPCS INTOX program of WHO and importance of poison information center are stated in detail and reference is cited for more information to readers (Reference Number 5).

**Comment 9:** It would be a fascinating story about the homicides. I short discussion of a few cases would be of interesting, and recommend publishing it.

**Response:** Authors regret for not having more information to share about the homicide cases. Future homicide cases might be investigated and information obtained might be published.

**Comment 10:** There has been considerable discussion of lead poisoning and developing countries.  It would be good to discuss lead a little more.  You might not get many who are poisoned by lead as due to its insidious onset, and you are focusing more on acute events

**Response:** We have not come across any case of lead poisoning in the current study and therefore a discussion on lead poisoning might be beyond the scope of this article.

**Comment 11:** What type of poison prevention systems has the center developed?

**Response:** Please see the response to comment 8.

Reviewer #2

This is an interesting article but has several limitations that need to be addressed before the article achieves publishable form:

**Comment 1**. Introduction makes it sound that the focus of the paper is pesticides, however the article covers a bunch of causes of poisoning, including alcohol. Either focus on pesticides or indicate upfront that the paper is covering all cases of poisoning.

**Response:** Thank you for the comment. Necessary modifications have been made in the introduction part of the revised manuscript.

**Comment 2**. Need to indicate where people get exposed to these chemicals (fields?)

**Response:** Most of the poisoning with intentions of suicide were found to occur at home. Poisoning in industrial workers were at workplace. This is incorporated in the revised manuscript. 3rd paragraph of results section (page 6-7).. . ‘The circumstances of poisoning in most of the cases were suicidal (73.4%, 75.2% and 88.8% in the years 2015, 2016 and 2017 respectively) with intentional oral intake of poisonous substances at home. Agricultural chemicals stored in home were found to be the poisoning agent in 28.18% of the suicide cases.’ and final paragraph of results section ‘The number of industrial workers exposed to poison at workplace was 19, 29 and 56 in the years 2015, 2016 and 2017 respectively’.

**Comment 3.** Need to add a paragraph on global health significance of funding and next steps of this work. How are you planning to address the issue? what wold be the recommendations?

**Response:** New paragraph has been added in the manuscript. Please see the 7 and 8 paragraph in the discussion.

**Comment 4.** The paper is missing any statistical tests and considerations. The authors must either add some sort of stats (such as comparing characteristics of those who had pesticide poisoning vs. others) or make this paper shorter and resubmit as a short report or cases series without stats.

**Response:** Statistical analysis has been incorporated in the revised version. The death rate showed no significant increase annually, but the fatality in men was found to be significantly higher than that of females (Table 1). Also, the plasma cholinesterase showed significant decrease in agricultural pesticides poisoning group when compared to other known agents (Fig-2B).

**Comment 5**. Please carefully check the paper to ensure that it is in modern American medical English. Term like "dropsy" is no longer used in medical literature and the more appropriate word would be "edema". Carefully check line by line with the native English speaker.

**Response:** English has been edited. Term dropsy cases replaced with edema.