The impact of the 2 first waves of COVID-19 on Estonian Poisoning Information Centre's activities: need of quick learning.

Oder M

Estonian Poisoning Information Centre • Phone: +372 79 43 79 4 • E-mail: mare.oder@16662.ee • www.16662.ee

Objective

Starting from March, coronavirus disease (COVID-19) reached in Europe, as well in Estonia (population 1,3milj) within 2 waves in 2020. Suddenly all sitizens needs new knowledge about cleaning, disinfectants in first sight, followed need for information of safe behavor in nature. As people remained at home while almost 90% of poisonings occur at home, an increase in poisonings was expected. In addition to advising on toxicity, the EPIC was also expected to provide constant media information to the target groups. Previously planned National Poisoning Prevention Week (in March) received rapidly new content. The aim is to analyze the effects of the COVID-19 on EPICs hotline in order to be better prepared for poisoning prevention in future.

Method

A retrospective study analyzing the data from the Estonian Poisonings Information Centre's hotline 2019-2020. Were compared the number of monthly calls in 2020, as well compared the number of yearly calls in 2020/2019. Were collected: type of caller, age group, reason for exposure (accident, intentional), specific type of exposure. Increases or decreases of 10% in parameters were considered a change.

Results

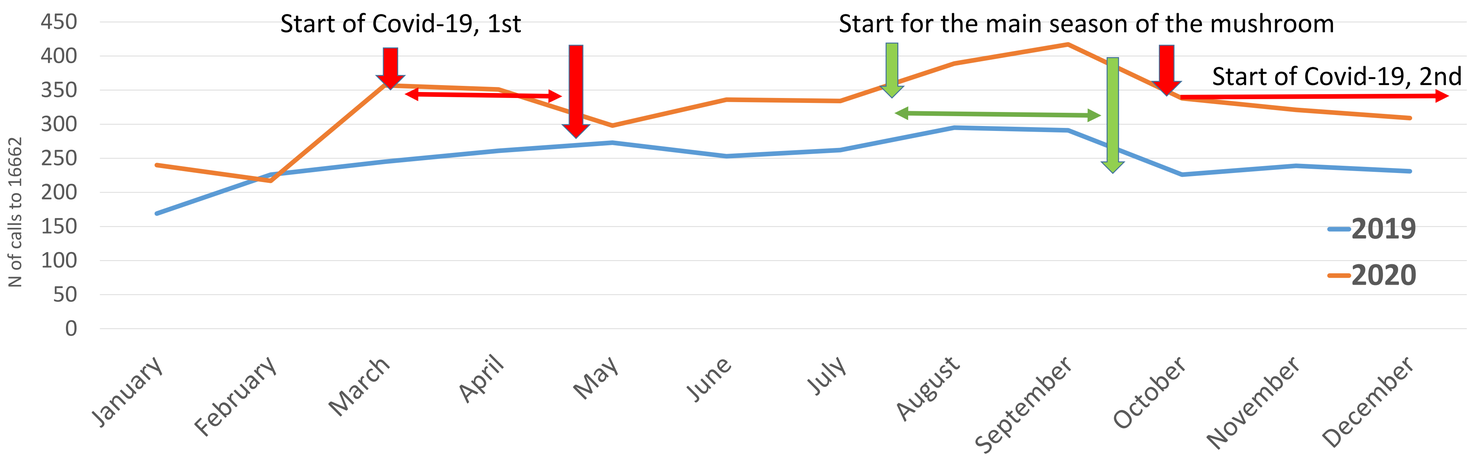

Fig 1. Comparing the number of monthly calls 2019/2020, specially impact two Covid-19 - and main mushroom seasons to the volume of total calls to the hotline number 16662

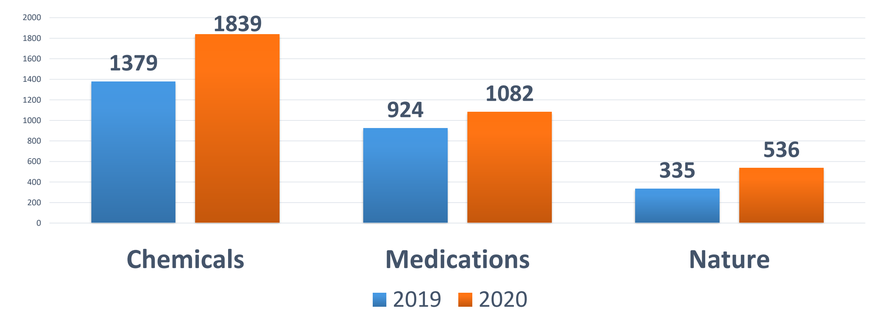

Fig.2 Change in the number of calls in the view of the main poisoning groups 2019/2020

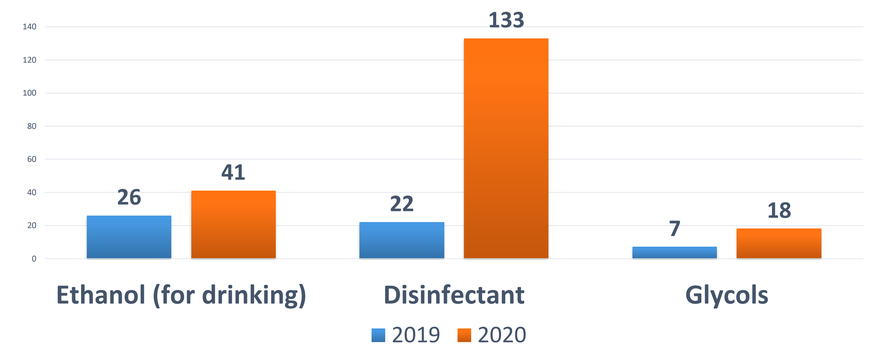

Fig 3. Detailed breakdown of chemical poisoning: change in the number of calls due to different alcohols 2019/2020

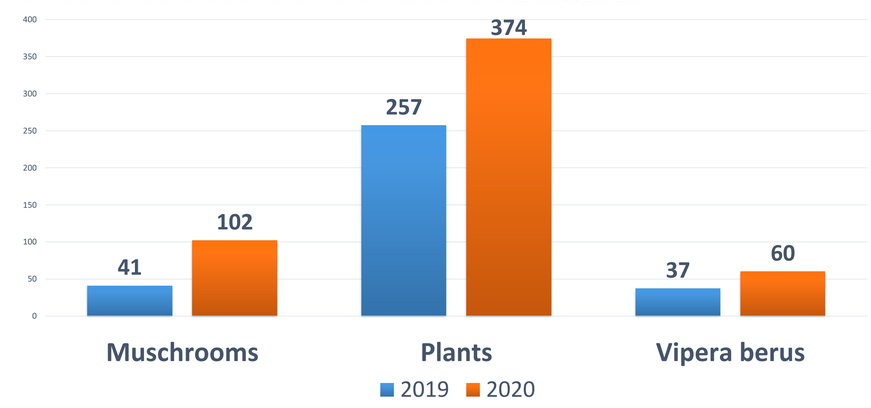

Fig 4. Change in the number of calls due to muschrooms, plants, vipers 2019/2020

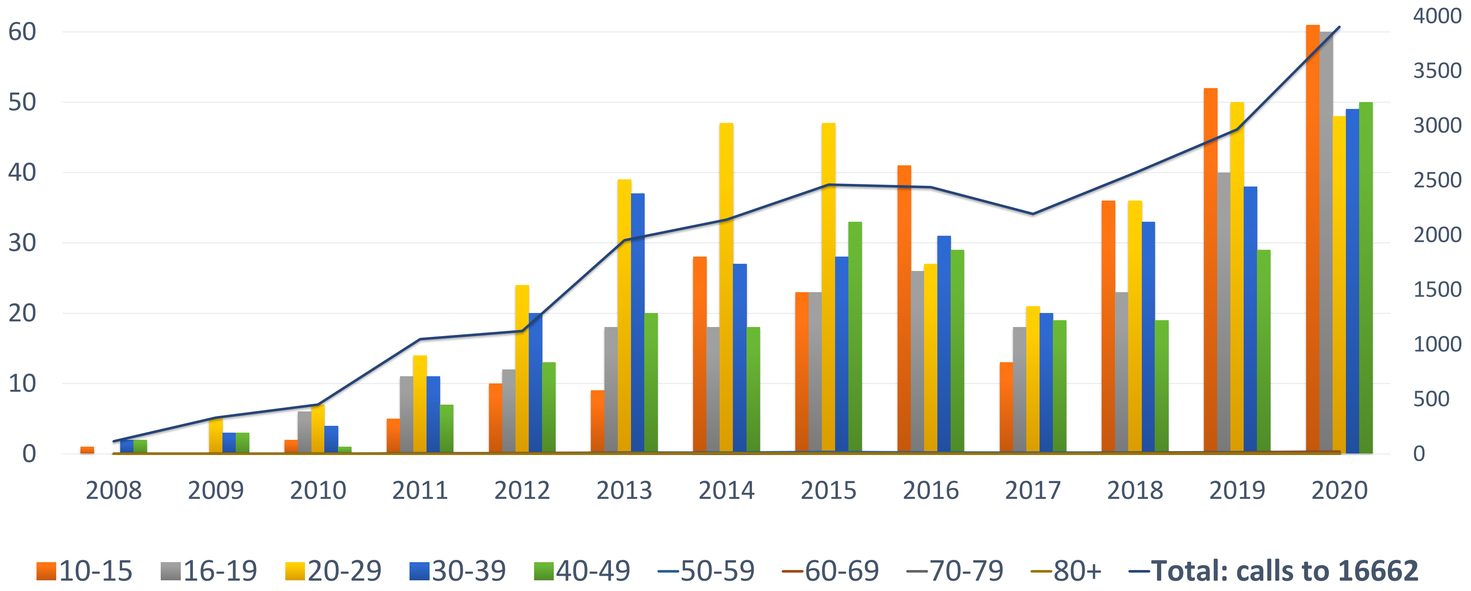

Fig. 5 Comparing intentional poisonings 2008-2020, changes in age groups comparing to the total number of calls.

The average number of monthly calls in 2020 was around 325 (increased 32% from 2019), see Fig 1, with rapid change in 2020 from March compared with February (increased 65%), but number of calls remains high till the end of 2020. Compared to annual average statistics 2019/2020: occurred more calls concerning adults (39%, 1069/1483), while calls regarding kids (0-3 years / 4-17 years) increased modestly: 28%/26%. Compared to other poisoning groups, the number of drug-related calls was one of the lowest (increasing 17%), but consulting poisonings from chemicals increased 33% (Fig 2), among them markedly calls from disinfectants 505% (22/133 compared 2019/2020, Fig 3), while exposures to mixed chemicals markedly decreased (-97%), 30 poisonings 2019/1 call 2020. Accidents with button batteries increased 76% (38/67 compared 2019/2020). Surprisingly, in early July followed by period of poisoning from the Nature while lot of citizens visited the forest, to avoid crowded places (Fig 4). Number of poisonings drop up from mushrooms (149%), snakes (62%), plants (46%) while the COVID-19 1st wave has temporarily subsided.

There was no significant change in the number of accidents/intentional poisonings and the number of public/medical callers compared to 2019/2020. These numbers increased in total, but in the same amount as the total number of calls. In the group of intentional poisonings, however, there was a changes inside of the age groups: intentional poisonings increased among those aged 10-19 years and 40-49 years, and decreased among those aged 20-29 years and older than 80 years (Fig 5).

Conclusion

The COVID-19 pandemic impacted Estonian Poisonings Information Centre's activity significantly. Trends were identified. Is possible to assume that the centre's active role in the crisis with a strategic communication may be related to the higher number of calls thru increased awareness, identified toxicity trends need more precise targeting in the media for subsequent coronavirus outbreaks.