

Letter to Editor

Anti-Vaccination Myths

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LETTER TO EDITOR

Prevention Is Better Than Cure; that's what we have always been told.

Let's imagine living in the 14th century for a minute. You wake up in a flea-ridden bed after a restless night of sleep, interrupted by the alarm clock of the century (the nearest rooster). You put on the cleanest clothes you have, the ones you washed a month ago, and head out to work. On the way out, you see your little daughter slumped on the table. She has been running a high fever for some time and frequently mentions feeling cold. You've brushed off her complaints before because everyone is sick, but today something is different. Today you notice her toes and fingers are starting to turn black. The shadow of "Black Death" is already in your house!

The Bubonic Plague, commonly referred to as the "Black Death", is a disease few in the modern age experience, yet it is infamous for the number of people it killed in the 14th century. While the exact number is impossible to identify, researchers have said that 50 million deaths would be a safe estimate [1]. The Black Death was responsible for wiping out at least 60% of entire Europe population, with equally damaging effects in Africa and Asia.

Plague is not the only fatal infection; diphtheria, measles, meningitis, and other vaccine-preventable diseases (VPD) are equally dangerous [2].

There is an argument whether natural immunity acquired by getting the infection is more potent and less harmful than the ones given as vaccines. The answer is that most of the time natural immunity is more potent than vaccination, but larger price might payed. Simple mumps can cause deafness [3], and bacterial meningitis might cause permanent brain damage or can even be fatal [4]. Vaccines against specific pathogens do not only protect from infection, but rather prevent malignancy such as cervical carcinoma. Unfortunately, misinformation and fear can cause suffering when it could have been avoided.

Let's address some of that misinformation. Firstly, the premise of the anti-vaccination argument contends that vaccines are dangerous because it is unnatural, or contains harmful ingredients. A notable example is thimerosal (a preservative) that has been erroneously blamed for causing autism in children. A research paper published in 1998 [5] claimed to show a correlation between measles and autism, putting parents in a dilemma about whether they should administer vaccines to their children. However, the work has since been widely disproven [6,7,8] and the research paper was subsequently retracted by the

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publishers. Sadly, sensationalized headlines have already done the damage and created vaccine skeptics that continue to spread fear until today.

The detrimental impact of anti-vaccination movement has already been demonstrated: in January 2015, an 11-year-old child in the USA was hospitalized for a suspected measles infection. His only notable trip outside in the previous week was a visit to Disneyland. Within a month there were 125 measles cases reported. 39 (35%) of them had attended the same Disneyland theme park, 37 (34%) were unknown recipients, and 34 (31%) were secondary patients. Among these secondary patients, 26 were members of the household or had close contact, and 8 of them were exposed through community settings.

Secondly, some Muslim parents worry that taking vaccines is discouraged (haram) in Islam. The most common reason mentioned for avoiding vaccines in some Muslim majority countries such as Afghanistan, Malaysia and Pakistan, is religion [9]. There were 28 diphtheria cases, including five deaths reported in Malaysia in year 2016, and there were 32 cases with 7 fatalities last year. Most recently, in October 2018, an unvaccinated child died in Johor-Malaysia from diphtheria. She is only 14 months old. It is a terrible tragedy for their families and a powerful reminder to the rest of us. On a worrying note, there is an increase in the number of parents who refuse to vaccinate their children, according to data from government clinics and hospitals in Malaysia. The National Fatwa Council in Malaysia had decided that taking vaccines is permissible in Islam as a method to prevent illness and suffering to individuals and communities. National Immunization Promotion (NIP) program has helped maintain a 95% vaccination rate among Malaysians [10].

People in other countries can only wish for such a blessing. We have witnessed many outbreaks of VPD in countries under conflicts; the latest of which is the diphtheria outbreak in Yemen 2017-2018, which has resulted in 1907 Diphtheria cases that includes 98 associated deaths. Children between the ages of 5-15 years old were the most affected, representing 44% of all cases [2].

Surveillance is usually focused on case detection to investigation and laboratory confirmation. While it is essential to

the control of any infection, prevention by getting vaccination in time, is the best preventive measure. As medical professionals, our concern is: if the anti-vaccination movement is left uncontrolled, what will happen in the long term? If these numbers continue to increase, then it might have a significant effect on the health of the entire nation. For safer place for the children; identified strategies should be tailored according to the target population, reason for hesitancy, and the specific context.

CONFLICT OF INTEREST

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