

Immunization crisis may develop due to economic crisis during COVID-19 pandemic

Dear Editor,

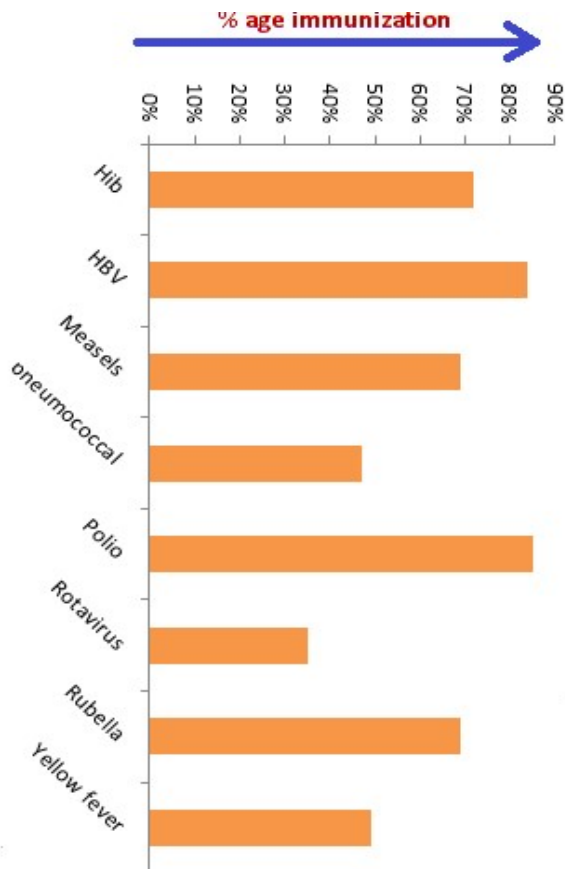
COVID-19 pandemic is a global health crisis with 61, 149,391 confirmed cases and 370,478 deaths till 29 May, 2020 [1]. This pandemic has shattered many economies with an estimated loss of \$5.8 trillion to \$8.8 trillion globally. This economic loss can result in reduction in funds to World Health Organization. Unfortunately, United States of America (USA) has announced termination of any further funding to WHO which can lead to another global health crisis [2]. As WHO is a voluntary funding based organization its main donor are America, China, Japan, Germany and United Kingdom. Among these USA is the main donor with a contribution of \$115.8 million alone followed by China \$57.4 million, Japan \$41 million, Germany \$29.1 million and UK \$21.9 million [3]. America's termination of funding can put WHO and child health programs in serious crisis.

Among many programs run by WHO one of the most important program is immunization of children. Immunization coverage programs save 2-3 million lives per year causing decline in measles related deaths, eradication of polio, surveillance of rotavirus, BCG and DTaP vaccination in children [4]. It is estimated that during Millennium Development Goal (MDG) there is overall decline in child related mortalities due to malaria, measles, diarrhea, AIDS and meningitis [5]. Remarkable results are achieved with measles and diarrhea immunization programs causing a decline in death rate by 73% and 80% respectively. According to a study with current success rate diarrhea related deaths can be virtually eliminated by 2030. Another successful program is "End Polio" program which eradicated polio from world except from Pakistan and Afghanistan [4][6]. This termination of funds to WHO can waste all previous efforts in developing countries.

On the other hand despite of all efforts still 19.4 million children did not received prescribed dose of vaccines. Data analysis revealed among these 60% of children belong to 10 developing countries namely Angola, Brazil, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Nigeria, Pakistan, the Philippines and Viet Nam [4]. These countries mainly rely on foreign funding and Non-Government Organization (NGOs) for child health care programs.

According to WHO immunization coverage report updated on 6 December 2019 globally 100% results were not achieved Fig 1. The immunization rate was low in developing counties with high population density and poor health care facilities. People are already battling to fulfill basic necessities like food, clean drinking water and shelter [7].

COVID-19 pandemic has further worsened the economies of these counties. As a result these counties will not be able to support vaccination programs at their own. WHO has an already established network in these regions, any efforts from scratch will waste lots of time and eventually cost millions of lives. Now a heavy responsibility lies on the shoulders of world leaders to foresee this up-coming crisis and take appropriate measures. Timely management of funds by convincing USA government or by alternative funding sources can save work of decades done by global community through WHO in saving lives in developing countries.



Sr. No	Disease	Number of Countries Covered
1.	Hib	191
2.	HBV	189
3.	Measles	171
4.	Pneumococcal diseases	145
5.	Polio	Eradicated except Pakistan and Afghanistan
6.	Rotavirus	101
7.	Rubella	168
8.	Yellow fever	36/ 40 counties at risk

Fig 1: % age immunization success published on 6 December 2019
Haemophilus influenzae type b (Hib), Hepatitis B virus (HBV)

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