



COVID Vaccination Challenges in Pakistan

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COVID-19 Pandemic - Context

- Globally, the COVID-19 pandemic has become the most significant crisis challenging the health, economy, and wellbeing of the people.
- The COVID-19 has become more than a **health crisis** for all countries with critical **social, economic, and political** consequences.
- In Pakistan, from 3rd January 2020 till 23rd June 2021, there have been **9,48,268 confirmed cases** of COVID-19 with **21,977 deaths** reported. Out of which, **892,319 patients have been recovered**.

Factors Precipitating Challenges

System Oriented

- Availability of vaccines

- Variety of vaccines

- NIMs related issues

- Supply Chain Management

Community Oriented

- Adverse Events Following Immunization

- Myths and conflicting statements

- Uncertainty of benefits VS Risks

Significance of AEFI

- Preparation for AEFI, the unexpected adverse event, requires the consideration of different approaches to signal detection.
- New vaccine technologies, such as those being explored for COVID-19 vaccines, could cause AEFIs that are more complex and difficult to recognize.
- With the growing evidence of inter-individual variation in vaccine responses based on differences in innate immunity, microbiomes and immunogenetics, there is an emerging field within vaccinology, known as adversomics, that acknowledges that AEFI might be individually determined.

AEFI's Manifestations

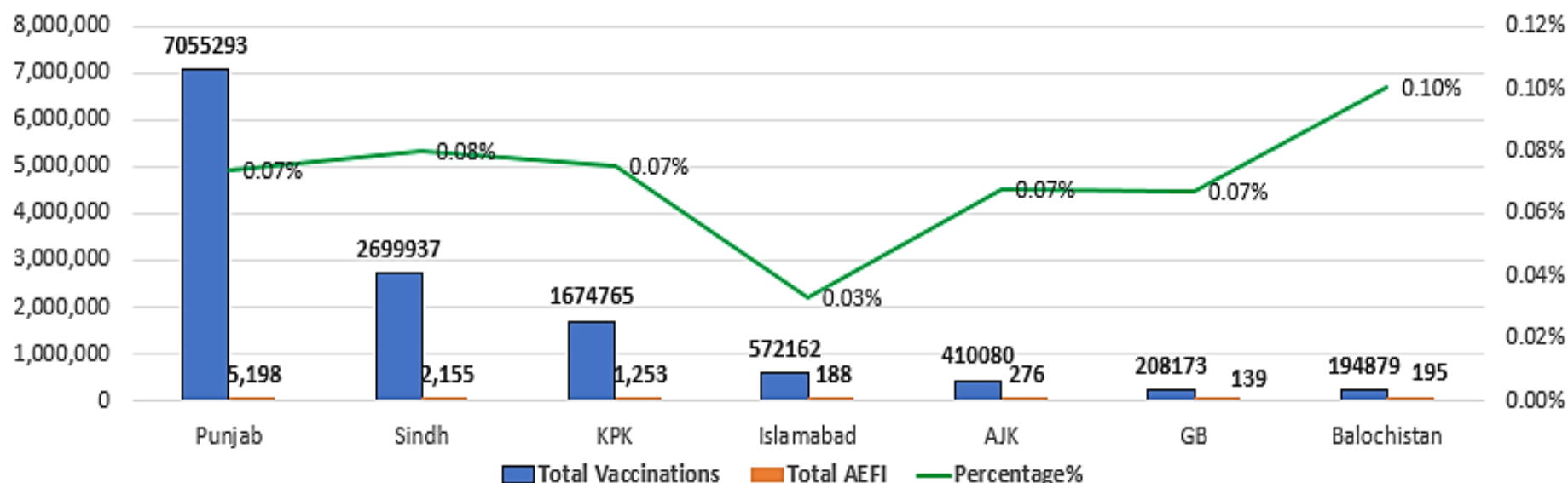
Although there is limited data available on potential AEFI that may be linked to COVID-19 vaccine products, following reactions may occur:

1. Anaphylaxis
2. Sepsis
3. Generalized rash
4. Fainting
5. Redness at site of injection
6. Fever
7. Headache and vertigo
8. Pain at Injection site
9. Swelling at injection site
10. Vomiting and diarrhea.

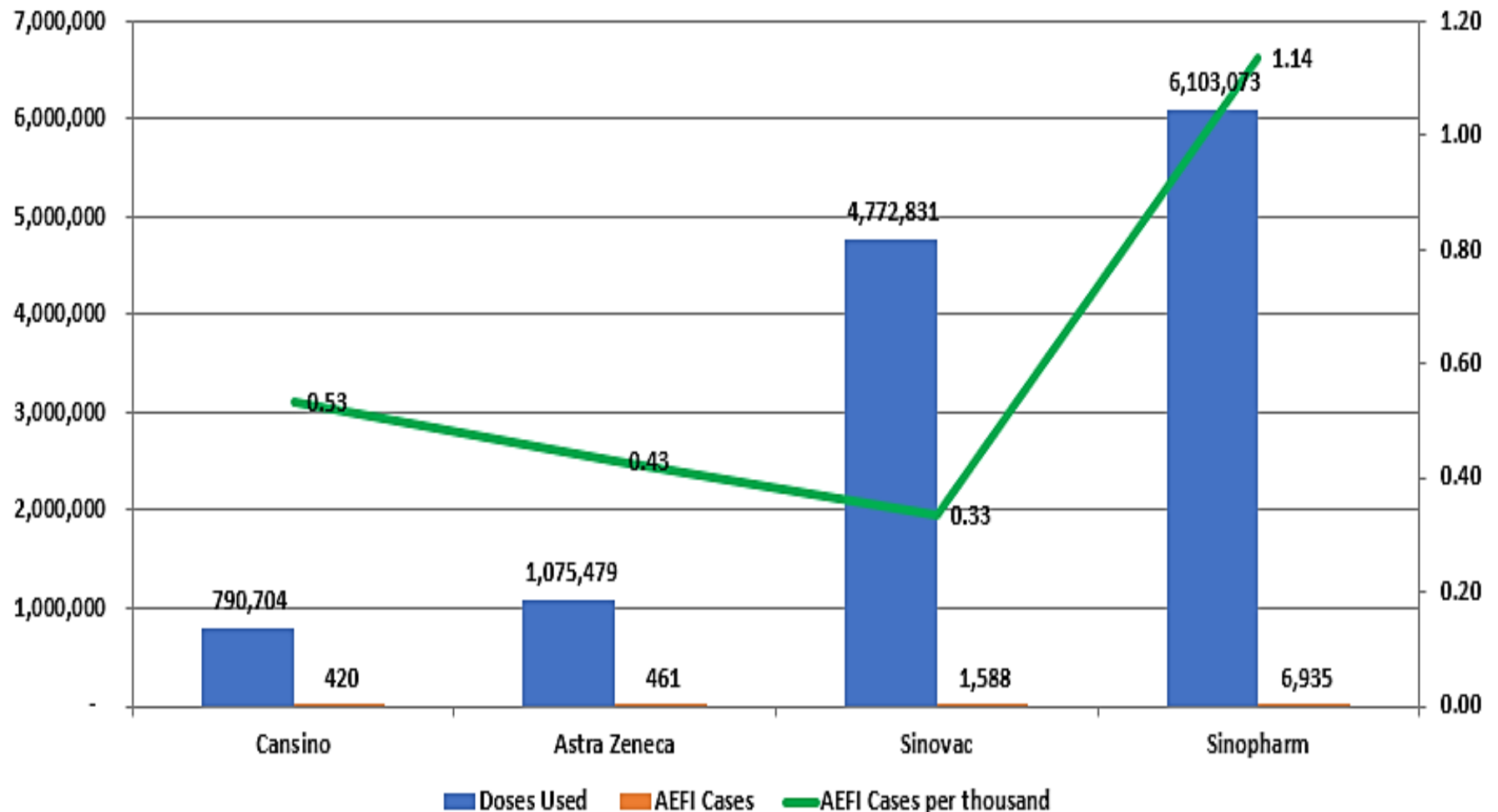
ADVERSE EVENTS FOLLOWING IMMUNIZATION

- There is 9517 AEFI cases reported so far. 13 cases are Major AEFI and 9504 reported as minor.
- Seven major AEFI were detailed investigated and National AEFI review committee concluded seven cases as a coincidental and three cases are pending for classification and Three cases (Lahore, Sheikhpura and Khushab) is under process.
- Total 8708 (91%) cases are reported from NIMs, 739 cases from 1166 (8%), 51 (1%) from COVIMs and 19 AEFI cases reported from other different channels.

Province wise covid vaccinations with no of AEFI cases



COVID-19 -Vaccine Doses Used and AEFIs Cases



Detail of Adverse Events Following Immunization

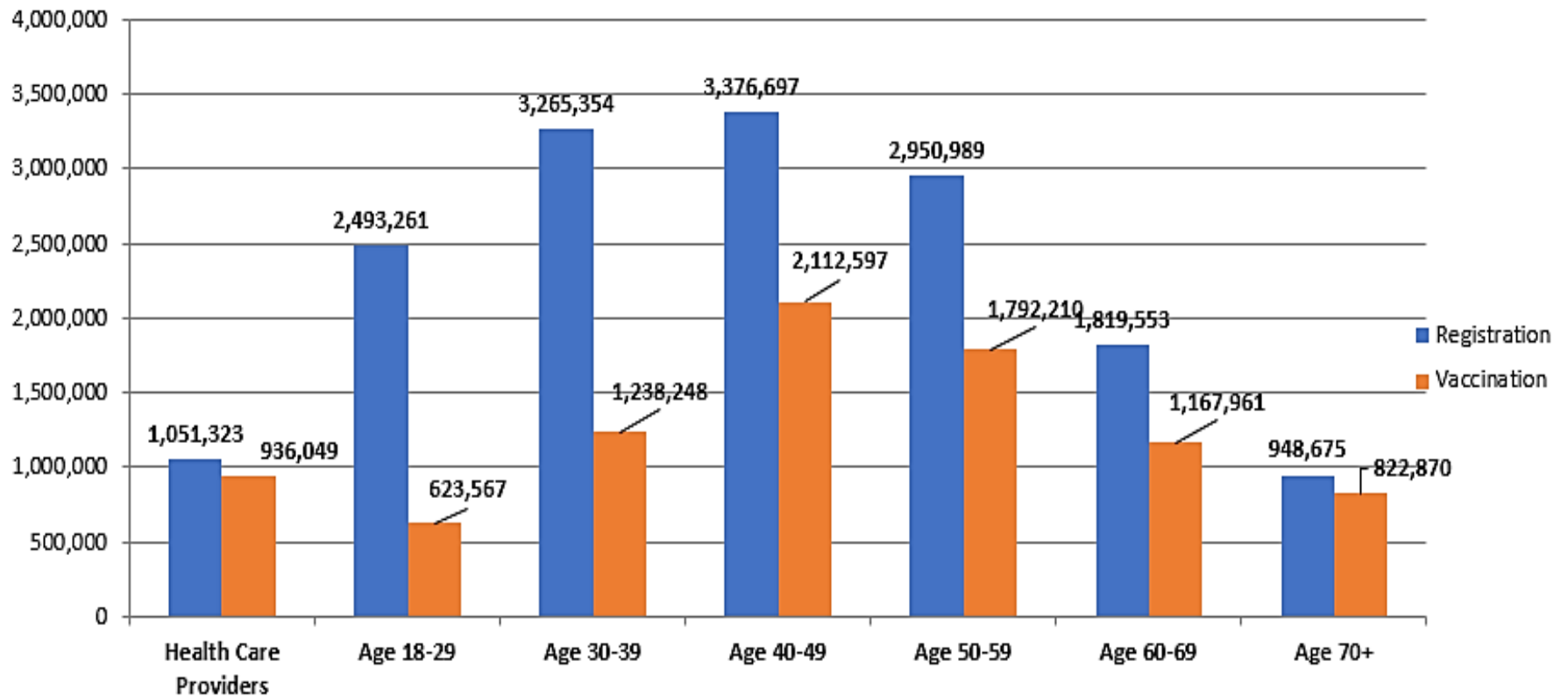
Side Effects/ Reactions Reported

Headache/Body aches/Flu	1810
Injection Site Pain/Redness	3109
Fever/Shivering	3398
Nausea/Vomiting	777
Diarrhea	591
Skin Rash	372
Swelling on Lips, face and body	38
Palpitations	29
Loss of smell and taste	3
Others: Vertigo, Cough and chest pain etc.	41
Lower Limbs Paralysis	1
Cerebrovascular accident (CVA)	2
PCR Positive for SARS-Cov-2	10

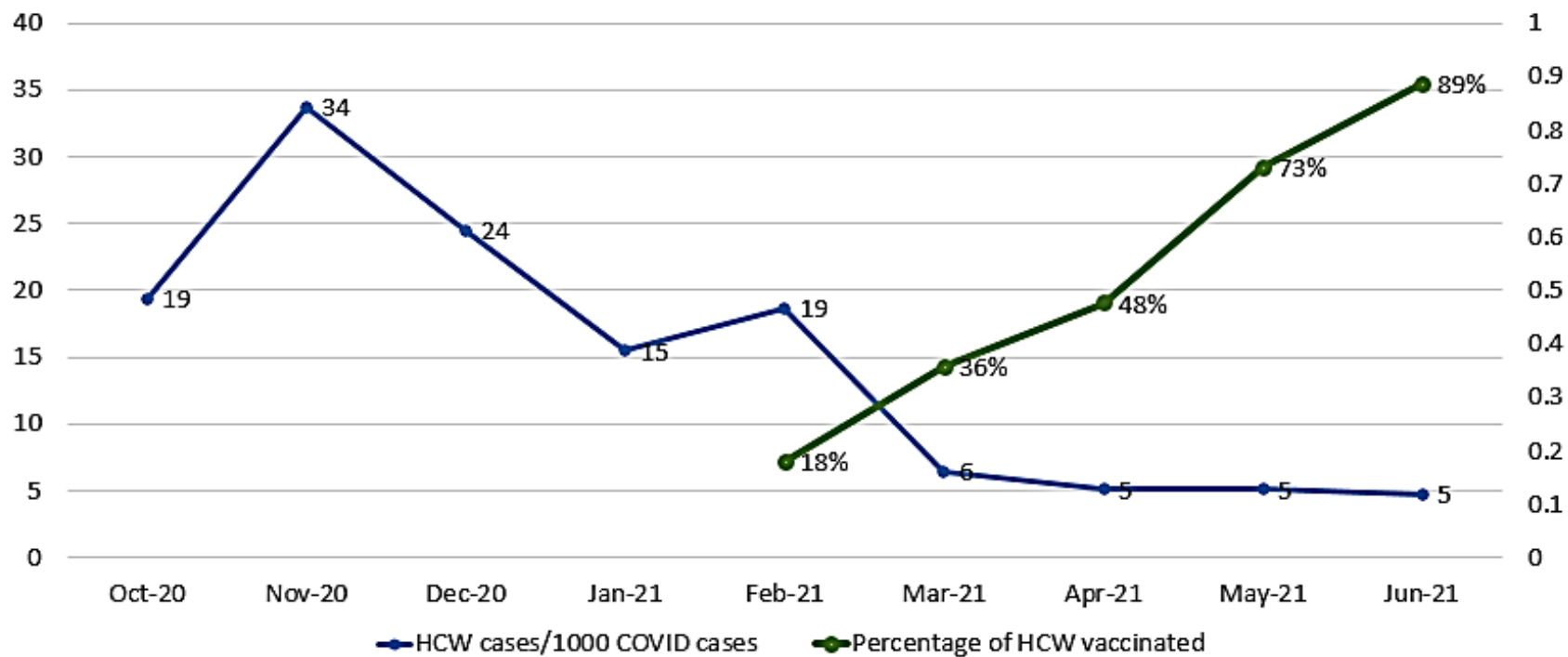
Risk Communication - AEFI

- From a **risk communication perspective**, there is a risk of a rise in the number of AEFIs due to the sheer number of individuals being vaccinated. AEFIs may also occur within the same geographical area or at the same time, creating a clustering effect.
- Heightened public and media interest in COVID-19 vaccines and related issues is expected in such situations, and negative long-term national and international impacts on COVID-19 immunisation efforts can take place in the absence of adequate risk communication responses.
- A proactive and evidence-led approach to risk communication is required to mitigate the negative impact of rumours;
 1. communicate that the risk from COVID-19,
 2. which the vaccine is preventing,
 3. is much greater than the risk of any complication that may arise from the vaccine; and, in case of a crisis,
 4. assure the public about the systems in place to investigate safety issues and respond appropriately.

Registration and Vaccination COVID-19 (Disaggregate by Priority Groups)



Impact of COVID-19 Vaccination over the COVID-19 Positivity of HCW



Thank You