DOI: https://doi.org/10.47391/JPMA.5371

2

1

Fostering the need of HPV Vaccination Programmes in Pakistan

4

- 5 Sareema Eman Akhtar, Saad Shakil
- 6 4th Year MBBS Student, Ziauddin Medical College, Karachi, Pakistan.
- 7 **Correspondence:** Sareema Eman Akhtar. **Email**: sareemaeman@gmail.com

8

- 9 Madam,
- In Pakistan's female population of 112 million (1), Human Papillomavirus (HPV) has
- caused devastating results of cervical cancer in females aged fifteen years and older.
- Being the second most common cancer in females aged fifteen to forty-four years and
- third most common cancer amongst females, current statistics estimate 5000 victims
- and 3000 deaths annually due to HPV. (2)(3). This is becoming a huge burden and needs
- to be acknowledged.
- HPV, a circular double-stranded DNA virus, is a common infection of the reproductive
- tract. Worldwide accepted strategies to reduce the burden of this deadly virus is through
- vaccines and screening. Due to the uneven distribution of this lethal virus, there are
- currently three vaccines available that were approved by Food and Drug Administration
- 20 (FDA) back in 2006, 2009 and 2014, namely Gardasil, Cervarix, and Gardasil-9,
- respectively (4). CDC has endorsed the need for two doses of the vaccine. At the age of
- 22 11-12, The first dose can also be given at 9 years followed by a second dose with an
- 23 interval of 6-12 months (5). However, in a developing country like Pakistan, HPV
- 24 vaccination programmes are still a challenge due to lack of awareness amongst the
- population and inconsistent efforts by the healthcare system in providing the screening
- and vaccination strategies. Many other factors are related with this gross burden: the
- 27 availability of the vaccines, insufficient funds and various collateral factors associated
- with the spread of rumours through social media. A study recently proved the strength

- of vaccination at a young age. It concluded that females' inoculation at the age of 12 to
- 30 13 years significantly reduced the risk of grade 3 cervical intraepithelial neoplasia (CIN)
- 31 (6). Centres for disease and control and prevention (CDC) has stated that the majority
- of the people who are unvaccinated and sexually active will get HPV during their lives.
- Therefore, there is an essential need to vaccinate children below the age of fifteen years
- so that 33,000 of these cancers can be prevented that are caused by this infection.
- Since, cervical cancer is a public health problem, a global strategy for its elimination
- was inaugurated in 2020 by WHO. Despite the worldwide challenges, WHO did not
- take a step back and continued its challenging efforts. However, situation in Pakistan
- did not improve. Despite the logistical uncertainties and economic burden to educate
- our females and children, more importantly, the parents should be aware of severe
- 40 complications of HPV so that unforeseen future can be healthy and prosperous.
- Discrimination in knowledge based on gender should be avoided and ample supply of
- vaccines should be provided to developing countries like Pakistan.

43

- 44 **Disclaimer**: None to declare.
- 45 **Conflict of Interest**: None to declare.
- 46 **Funding Disclosure**: None to declare.

47

48 References

- 1. Pakistan population (2022) live Countrymeters [Internet]. [cited 2022 Feb 11].
- Available from: https://countrymeters.info/en/Pakistan
- 51 2 Human Papillomavirus and Related Diseases Report PAKISTAN. [cited 2021]
- Nov 5]; Available from: www.hpvcentre.net
- 3. II. Complementary data on cervical cancer prevention Figure 2. Estimated
- coverage of cervical cancer screening in Pakistan, by age and study. [cited 2021]
- Nov 5]; Available from: www.hpvcentre.net
- 56 4. Kombe AJK, Li B, Zahid A, Mengist HM, Bounda G-A, Zhou Y, et al.
- 57 Epidemiology and Burden of Human Papillomavirus and Related Diseases,

58		Molecular Pathogenesis, and Vaccine Evaluation. Front Public Heal [Internet].
59		2020 Jan 20 [cited 2021 Nov 5];8:552028. Available from:
60		/pmc/articles/PMC7855977/
61	5.	HPV Vaccine Human Papillomavirus (HPV) CDC [Internet]. [cited 2021 Nov
62		5]. Available from: https://www.cdc.gov/hpv/parents/vaccine-for-hpv.html
63	6.	Falcaro M, Castañon A, Ndlela B, Checchi M, Soldan K, Lopez-Bernal J, et al.
64		The effects of the national HPV vaccination programme in England, UK, on
65		cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: a register-
66		based observational study. Lancet [Internet]. 2021 Nov [cited 2021 Nov 5];0(0).
67		Available from: http://www.thelancet.com/article/S0140673621021784/fulltext
68		
	Ċ	onally Accelot