

# FACILITATORS AND BARRIERS OF ZERO-DOSE CHILDREN IN PAKISTAN: SECONDARY ANALYSIS OF DEMOGRAPHIC HEALTH SURVEYS (2012-2018)

Mohammad Tahir Yousafzai<sup>1</sup>, Asif Khaliq<sup>2</sup>

1. Dept. of Pediatrics & Child Health, Aga Khan University Karachi, Pakistan  
2. School of Public health & Social work, Queensland University of Technology, Australia

## Background

- With 0.8 million zero-dose children, Pakistan is globally the 4<sup>th</sup> largest contributor of unvaccinated children.
- Evaluation of zero-dose children and associated factors is essential for data driven interventions and strategies.

## Specific Aims & Objectives

- We performed secondary analysis of two latest population wide demographic health surveys of Pakistan (PDHS: 2012-2013 and 2017-2018) to estimate zero-dose children and its associated factors.

## Methods

- Stratified two stage cluster sampling was done to enroll the participants.
- Ever married women aged 15-49 yrs, permanent resident or visitor who stayed in the household the night before the survey was eligible for enrollment.
- Data on vaccination status of children aged 12 to 59 months was obtained.
- Zero-dose was defined as child without any DPT containing vaccine by their 2<sup>nd</sup> birthday.
- Generalized linear model was used to identify factors associated with zero-dose

## Results

- A total of 24,471 women (2012-13: n = 11,763; 2017-18: n = 12,708) were interviewed.
- n = 2434 (21%) in 2012-13 and n = 1572 (12%) in 2017-18 had children between age 12 to 59 mo.
- Overall, 21% of children were zero-dose.
- A slight decline in zero-dose from 23% in 2012-13 to 19% in 2017-18 was observed.
- Female gender of child, maternal age < 20, maternal illiteracy, home delivery, missed BCG dose, poor wealth index, area of residence, family size > 8, and native language Pashtu/Sindhi were significantly associated with zero-dose.

## Conclusions

- About a quarter of children between 1 to 5 years are zero-dose in Pakistan.
- Only a 4% decline in zero-dose children has been observed between 2012 to 2018.
- Community led codesign interventions targeting subpopulation with higher rates of zero-dose children concentrated in Baluchistan, Sindh, and Khyber Pakhtunkhwa province is recommended.

## Acknowledgements

National Institute of Population Studies, Islamabad Pakistan

## References

National Institute of Population Studies (NIPS) [Pakistan] and ICF. 2019. Pakistan Demographic and Health Survey 2017-18. Islamabad, Pakistan, and Rockville, Maryland, USA: NIPS and ICF