Capacity of the surveillance system in the HPSC to describe and report on infectious disease incidence in underserved population groups in Ireland

Charlotte Salgaard Nielsen^{1,2,*}, Sarah Jackson², Patricia Garvey², Louise Cullen², Kate O'Donnell², Douglas Hamilton³, Grainne Begley³, Maeve McEnery⁴, Aileen Kitching⁵, Claire Dunne³, Emmanuel Bello³, Éamonn O'Moore⁶, Greg Martin²

¹ ECDC Fellowship Programme, Field Epidemiology path (EPIET), European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden; ² HSE-Health Protection Surveillance Centre, Dublin, Ireland; ³ National Social Inclusion Office, HSE, Dublin, Ireland; ⁴ HSE-Public Health (South), Ireland; ⁵ HSE-Public Health (West & North West), Ireland; ⁶ National Health Protection Service of Ireland

*Corresponding and presenting author: Charlotte Salgaard Nielsen, <u>Charlotte.Salgaard-Nielsen@hpsc.ie</u>

Ethnical approval: This is not a research study and exempt from ethical committee approval. Conflict of interest: The authors declare no conflicts of interest.

Funding information: The authors declare that no funds, grants or other support were received during this project.

Word count: 249 of 250

The HSE Health Protection Strategy 2022-2027 highlights the importance of surveillance systems which capture information on at-risk groups to understand and mitigate the impact of health inequities. This project aimed to evaluate the capacity of the HPSC surveillance system to describe and report on infectious disease incidence in underserved populations in Ireland.

Using the <u>PROGRESS Plus framework</u>, we mapped 16 equity stratifier categories included in the Computerised Infectious Disease Reporting (CIDR) system for 80 notifiable infectious diseases. We assessed consistency of captured data with related subpopulation denominators and recurring data requests made by external stakeholders, which is essential to enhance reporting on underserved populations.

Information was captured for seven equity stratifiers (i.e. Place of residence, Race/ethnicity/culture/language, Occupation, Gender/Sex, Socioeconomic status, Social capital, Age) for all notifiable infectious diseases, while three stratifiers (i.e. Religion, Education, Features of relationships) were not captured for any disease. At least one of the mapped equity stratifiers was requested for 30 (of 39) diseases collecting enhanced surveillance information, with considerable inconsistency between answer options, and with subpopulation denominators and recurring data requests. Completeness of data capture was higher for basic demographics (>90%) than any optional data element.

Despite ongoing discussions on the importance of addressing health inequity in Ireland, equity stratifiers are inconsistently requested, and somewhat discordant with available subpopulation denominators. We recommend that key equity stratifiers, e.g. ethnicity, are incorporated into routine surveillance as core variables and aligned with appropriate available subpopulation denominators, particularly for notifiable infectious diseases known to disproportionately affect underserved populations.