

Wearing masks in public spaces in Poland during SARS-Cov-2 epidemic: an observational study

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Background:

Face masks can all be effective means of controlling SARS-CoV-2 transmission. In Poland, obligatory wearing of masks in public spaces was introduced on April 10th, 2020.

Objective:

To assess use of masks in public spaces in Poland during the third wave of SARS-Cov-2 epidemic.

Methods:

A non-participatory covert observational study was conducted during the 3rd wave, on three dates (20.03/27.03/03.04.2021) at public spaces in 12 provinces with different SARS-Cov-2 infection risks according to the R number. Ten consecutive individuals were observed by each of 91 medical students, using a structured checklist.

Results:

Among 3283 observed individuals, the female/male ratios were 1.1/1.1/0.9 on the three dates. Around three quarters were using masks: 76.2% (858/1126) on date 1, 76.3% (867/1137) on date 2; and 79.7% (813/1020) on date 3. Medical masks predominated on all dates (52.4%-50.5%-55.8%), followed by cloth (34.6%-37.6%-33.0%). Location in a closed space (OR = 3.47-2.64-2.84) was associated with higher usage. Participants in sports were about two-three times less likely to use masks (OR = 0.52-0.58-0.34) as compared to other activities. The proportion using masks correctly was as follows: 62.6% (537/858); 63.1% (547/867); 57.7% (469/813) respectively; significant between-gender difference was observed regarding date 1 (date 1: 306/458, 66.8% females vs 231/400, 57.8% males; $p = 0.006$, date 2: 284/459, 61.9% females vs 263/408, 64.5% males; $p = 0.43$, and date 3: 232/408, 56.9% females vs 237/405, 58.5% males; $p = 0.63$). Uncovered noses (55.5%-59.5%) and masks around the neck (18.1%-24.7%) were the most frequent incorrect practices.

Conclusions:

The results show an essential difference between governmental regulations and how the general public responds to the SARS-Cov-2 pandemic in the context of mask usage. Medical masks were predominantly used in public spaces, however, almost every third individual wore masks incorrectly.

Key messages:

- Knowledge translation with the use of adequate communication channels, would be helpful to increase compliance and correct usage.
- This message can be used to target specific practices when developing public health campaigns which should be then rigorously evaluated for their effectiveness.