



DO CHILDREN KNOW HOW TO PUT A FACEMASK ON SO IT FITS WELL?

In January 2024 we did a study with children in Kathmandu, Nepal as part of the FACE-UP project (Factors Affecting Childhood Exposures to Urban Particulates). The goal was to learn whether children knew how to put on a KN95-style facemask properly. This type of facemask can help protect children from air pollution if it fits well. The results of the study were used to make a video showing children how to put a facemask on properly and make it fit well.

WHO TOOK PART?



185 children from two schools in Kathmandu, Nepal
93 boys, 92 girls
Age range 7 to 12 years

WHAT DID WE DO?



Horizontal-fold



Vertical-fold

- Each child put on either a vertical-fold or horizontal-fold facemask, made for children (shown above).
- Children could use a clip attached to the ear loops as a head strap if they had used one before.
- We asked the children to put the facemask on without giving any instructions and recorded them on video, while also taking photos.

WHAT DID WE FIND?

- Most of the children made at least one mistake when putting on the facemask.
- 42% didn't adjust the nose clip to fit close to the nose and cheeks, 20% didn't wear the facemask fully unfolded, and 14% put it on upside down.
- Younger children were less likely to adjust the nose clip or wear the facemask fully unfolded and more likely to put the facemask on upside down.
- Boys were less likely than girls to wear the facemask fully unfolded, and more likely to put it on upside down.
- Children given the vertical-fold facemask were less likely to adjust the nose clip than those given the horizontal-fold facemask.
- Children given the horizontal-fold facemask were less likely to fully unfold it than those given the vertical-fold facemask.
- These mistakes could mean the facemask is not a very good fit, leaving gaps for air pollution to get in.



WHAT DO CHILDREN AND THEIR PARENTS THINK ABOUT AIR POLLUTION?

In January 2024 surveys were done with children and their parents in Kathmandu, Nepal as part of the FACE-UP project (Factors Affecting Childhood Exposures to Urban Particulates). The survey for children asked about their thoughts on how air pollution affects their health, their past use of facemasks, and what influences them to wear facemasks. The surveys for parents covered a wider range of protective behaviours. The findings were used to write a booklet for parents on how to protect children from air pollution and design a video for children.

WHO TOOK PART?



185 children from two schools in Kathmandu, Nepal
Age range 7 to 12 years
93 boys, 92 girls



155 parents
Age range 18 to 58 years

WHAT DID WE FIND FROM THE SURVEYS?

WITH CHILDREN

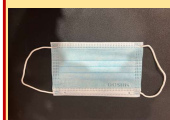
- 89% of the children thought air pollution could harm their health
- 74% thought it was very important to protect themselves from air pollution
- Less than 1% said they had never worn a facemask for air pollution protection. 84% had worn one several or many times.
- 37% told us they had worn KN95-style facemasks in the past (shown below). But surgical facemasks had been worn by many more (94%).
- 73% thought facemasks were very protective. KN95 facemasks were seen as more effective than other types of facemasks (shown below).
- The main reasons children stopped wearing facemasks were difficulty breathing, feeling hot, having a sweaty mouth, and trouble talking.
- Over 90% said they'd be more likely to wear a facemask if they saw their parents or a doctor/ nurse wearing one.

WITH PARENTS

- 97% of the parents thought air pollution could harm their child's health.
- 90% thought it was very important to protect their child from air pollution.
- When air quality was bad outdoors 97% had told their child to wear a facemask, 82% kept their child indoors, and 76% kept windows closed at home
- 44% chose a different route for their child to walk to school to avoid roads with heavy traffic. But many parents could not find alternate/ less polluted routes.
- 49% thought facemasks were very protective. KN95 facemasks were seen as more effective than other facemasks (shown below).
- 89% wanted to receive announcements or alerts about air quality, with most preferring updates from the Ministry of Population and Health or the Department of Environment.



KN95-style facemask



Surgical facemask



DuckBill facemask



Cloth facemask