

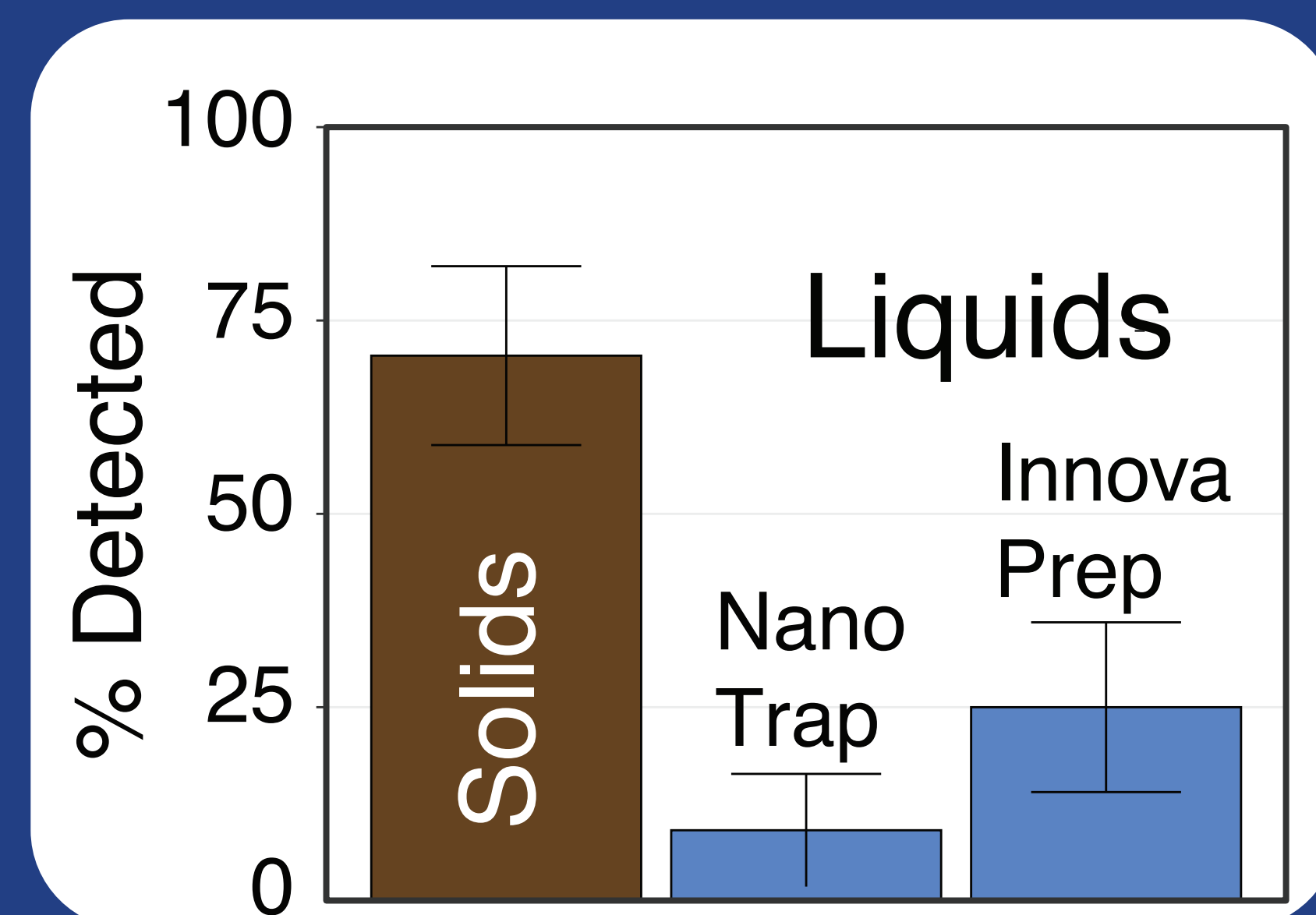
Methods comparison for respiratory virus detection in wastewater liquid and solid phases

Abigail Harvey Paulos, Dorothea Duong, Bridgette Shelden, Bradley White, Alexandria Boehm, Marlene Wolfe

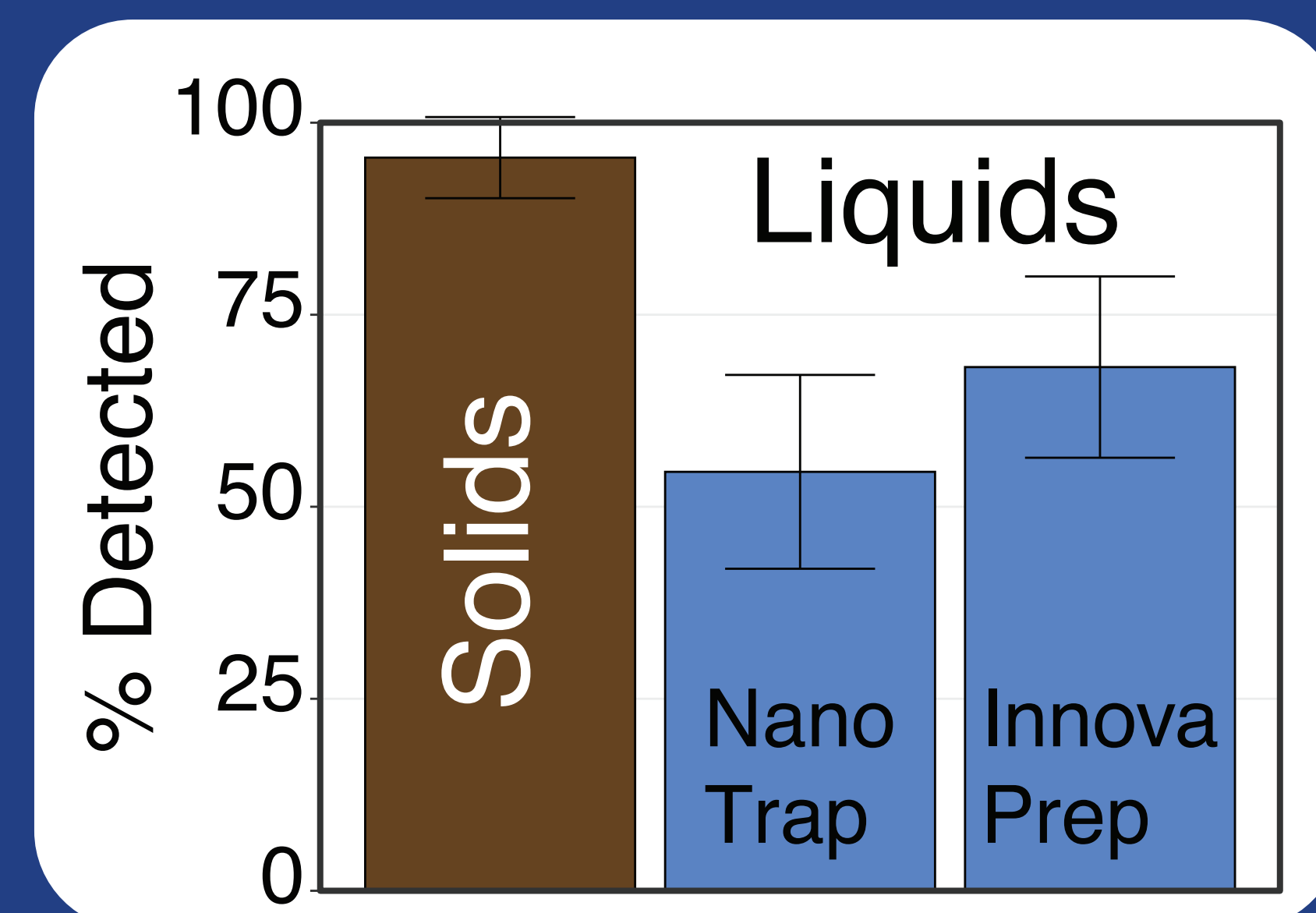


You are more likely to detect **low-prevalence respiratory viruses** in wastewater using **solids methods** than liquids methods

HMPV



Influenza A

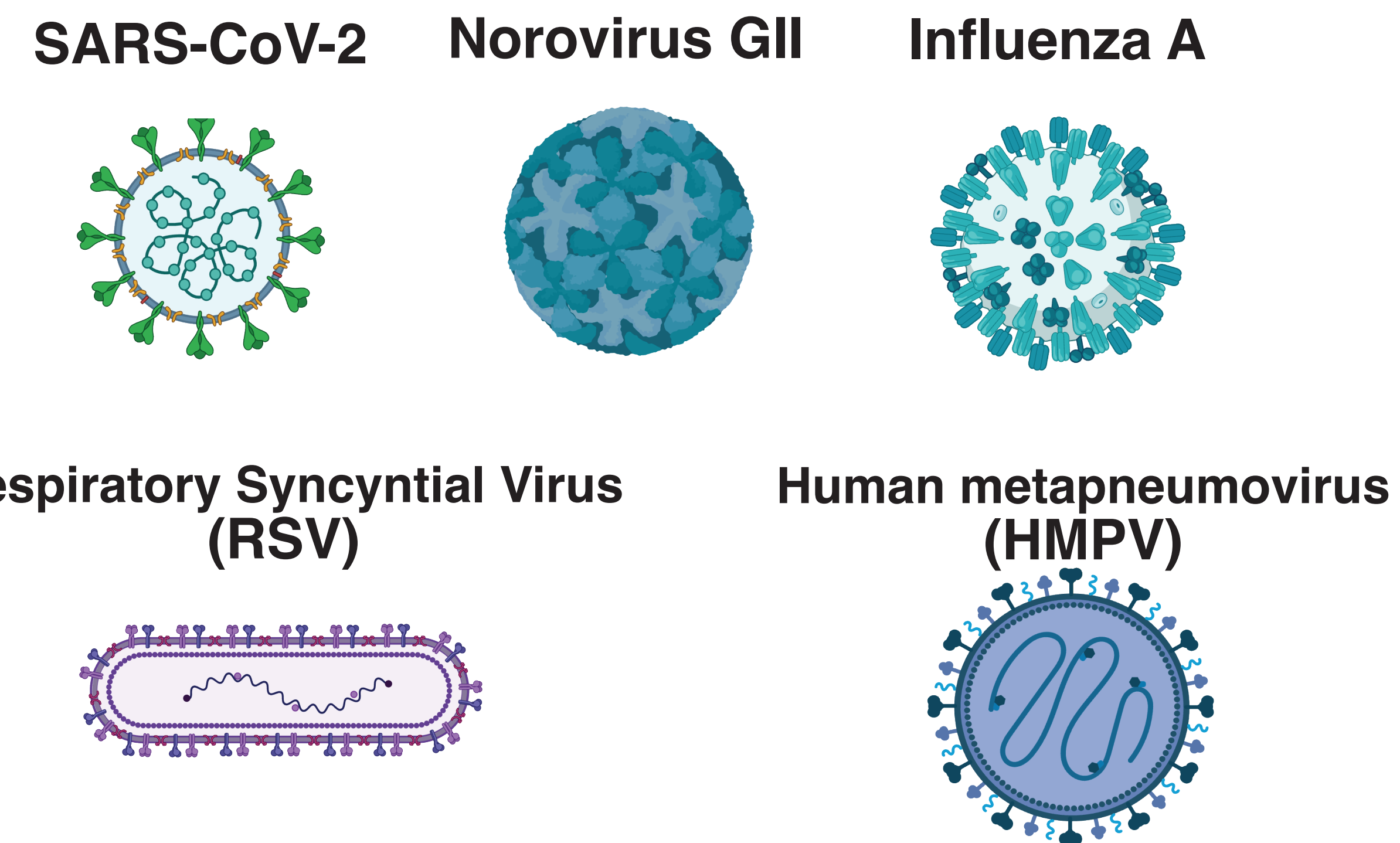


Want more info?

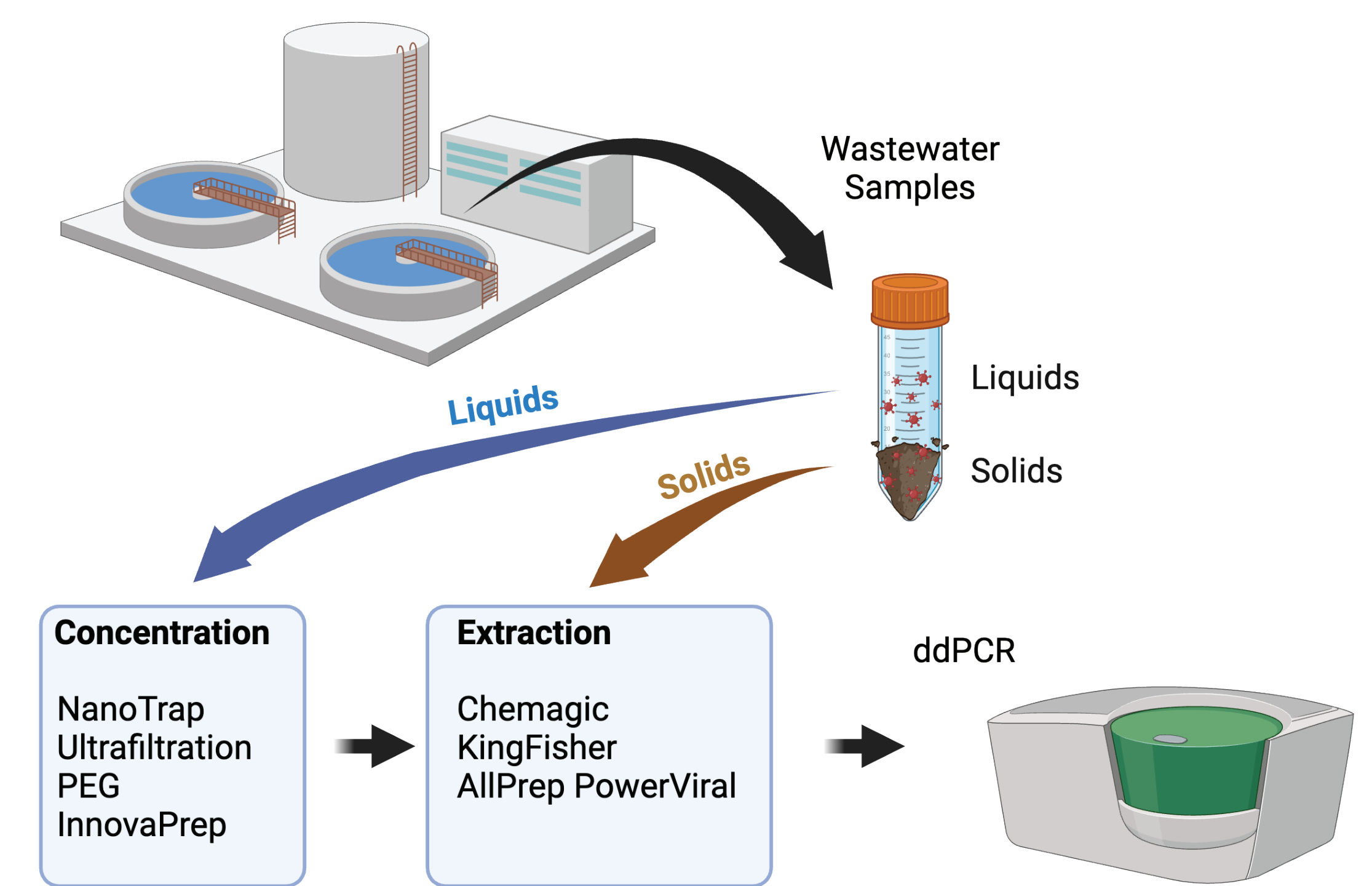


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This study aimed to **compare methods** for respiratory virus detection in both **solid** and **liquid** wastewater phases across five viruses:



Methods



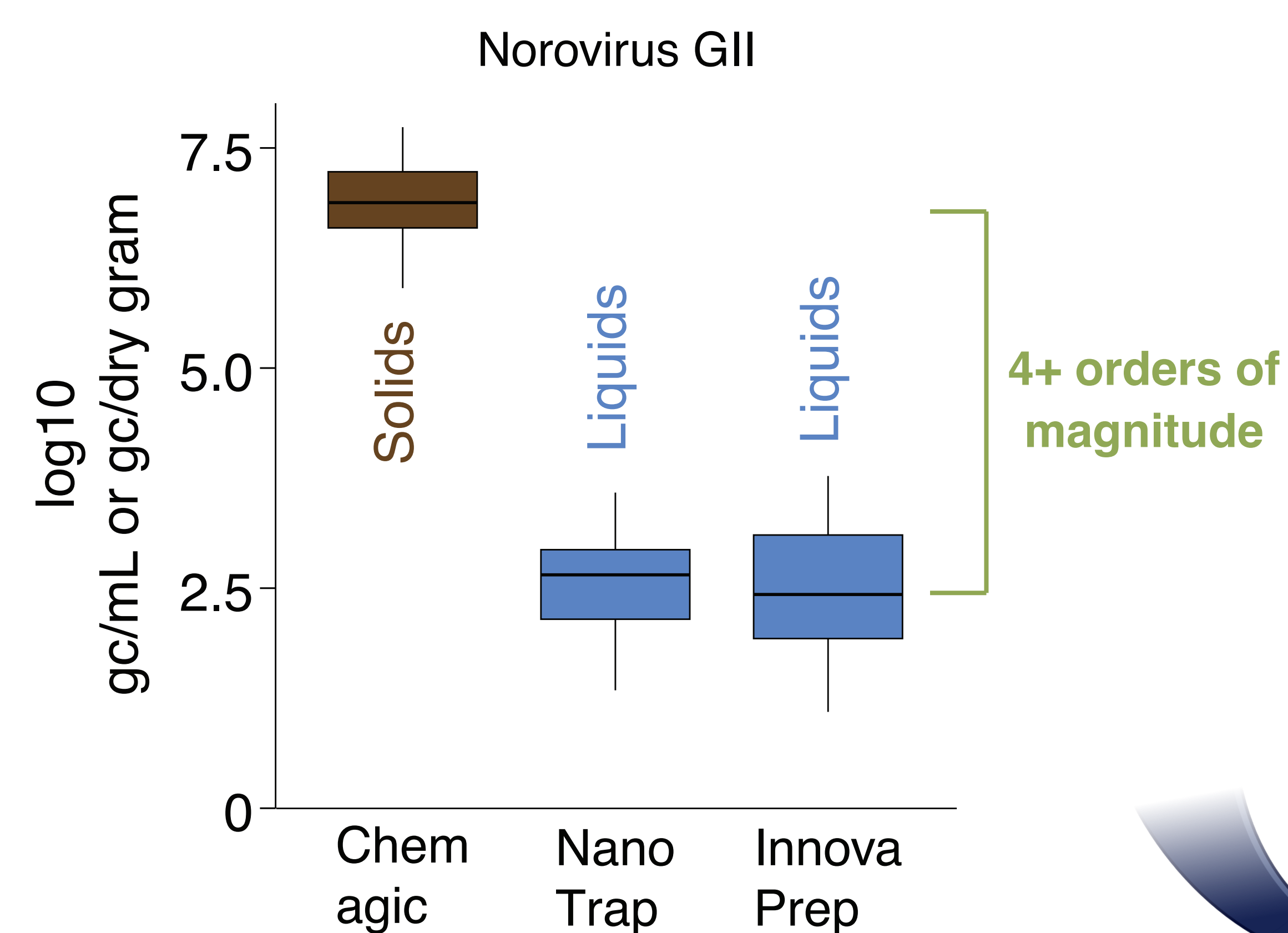
n = 12 utilities

n = 57 samples

4 liquid concentration methods

3 RNA extraction methods

Virus **concentrations in solids exceed those of liquids** methods by orders of magnitude on a **per-mass basis**



Yet, nucleic acid extraction kits accept a **smaller mass of solids** than liquids

0.225 g Solids vs up to 400 mL Liquids

approx. 3 orders of magnitude difference in mass.