

Viral kinetics data during the COVID-19 pandemic

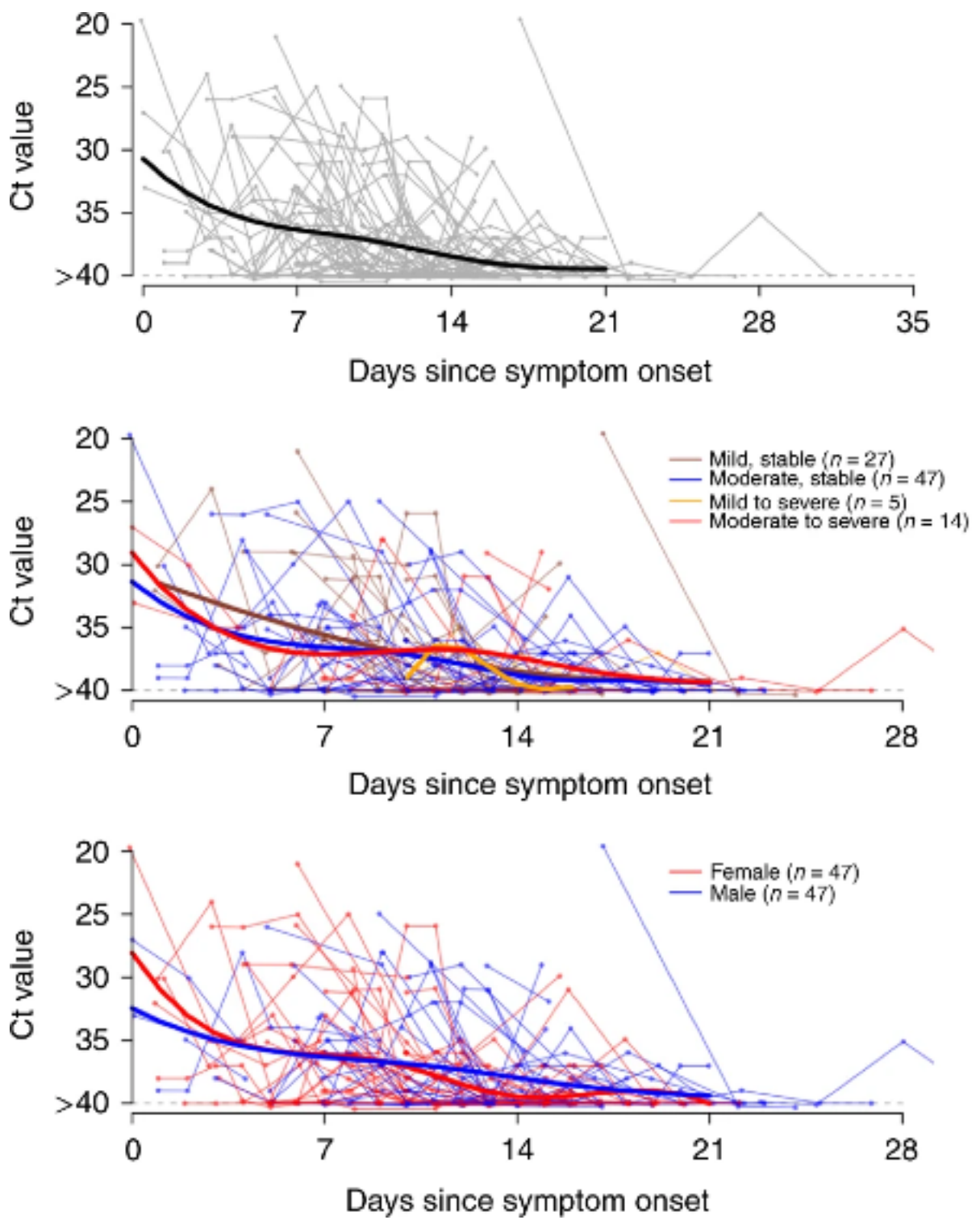
Targeted studies

nature medicine

Temporal dynamics in viral shedding and transmissibility of COVID-19

[Xi He, Eric H. Y. Lau, Peng Wu, Xilong Deng, Jian Wang, Xinxin Hao, Yiu Chung Lau, Jessica Y. Wong, Yujuan Guan, Xinghua Tan, Xiaoneng Mo, Yangqing Chen, Baolin Liao, Weilie Chen, Fengyu Hu, Qing Zhang, Mingqiu Zhong, Yanrong Wu, Lingzhai Zhao, Fuchun Zhang, Benjamin J. Cowling, Fang Li & Gabriel M. Leung](#)

[Nature Medicine](#) 26, 672–675 (2020) | [Cite this article](#)

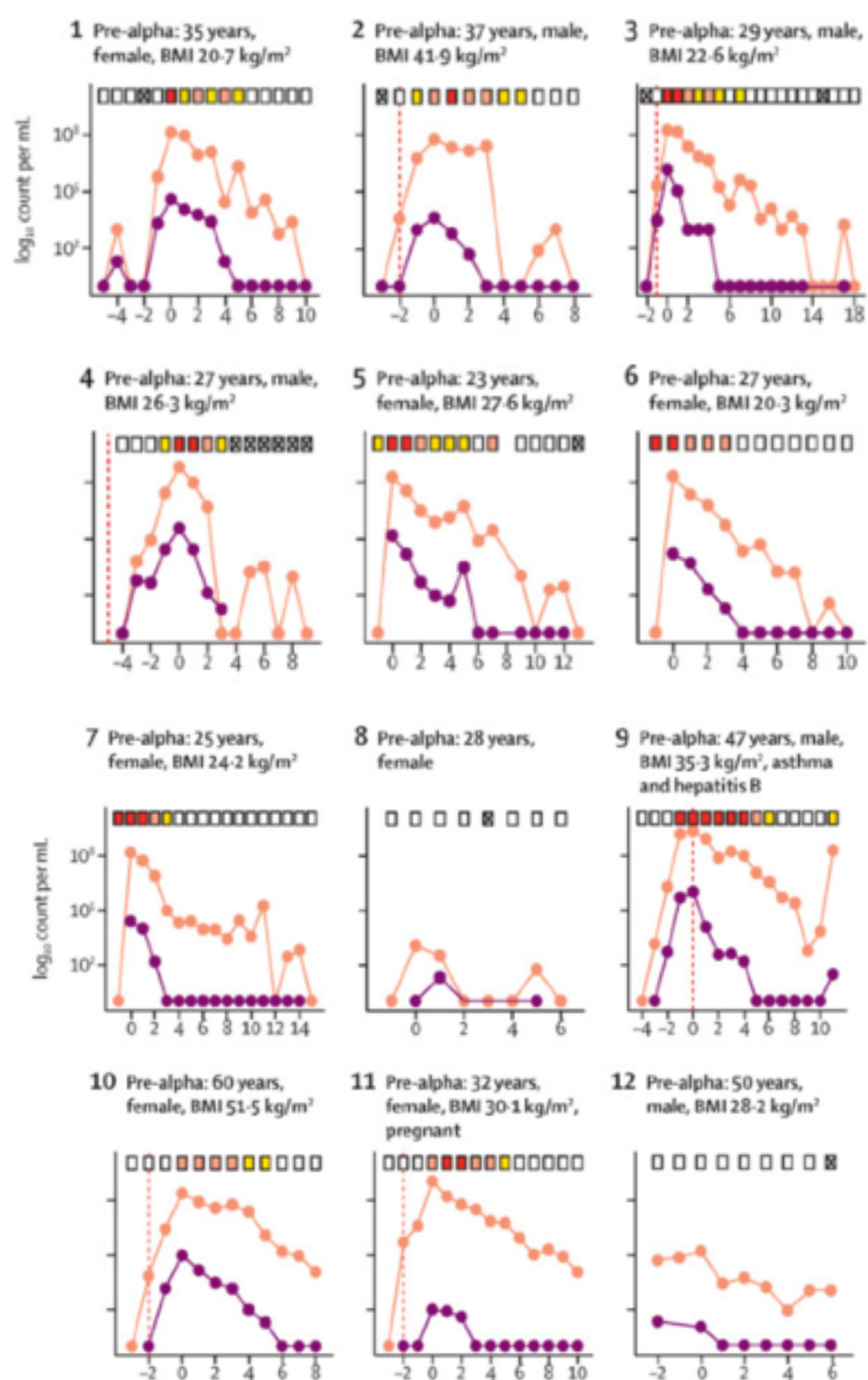


Large prospective studies

THE LANCET
Respiratory Medicine

Onset and window of SARS-CoV-2 infectiousness and temporal correlation with symptom onset: a prospective, longitudinal, community cohort study

[Seran Hakkj, PhD^{a,*}, Jie Zhou, PhD^{b,*}, Jakob Jonnerby, DPhil^{a,*}, Anika Singanayagam, PhD^{a,b,g,*}, Jack I. Barnett, MPhys^{a,†}, Kieran J. Madon, MSc^{a,†}, Aleksandra Koycheva, BSc^a, Christine Kelly, PhD^h, Hamish Houston, MBBChir^a, Sean Nevin, MSc^a, Joe Fenn, PhD^a, Rhia Kundu, PhD^a, Michael A. Crone, MBBCh^{c,d,f}, Timesh D. Pillay, MBBS^a, Shazaad Ahmad, FRCPathⁱ, Nieves Derqui-Fernandez, MSc^a, Emily Conibear, MSc^a, Prof Paul S. Freemont, PhD^{c,d,f}, Prof Graham P. Taylor, DSc^b, Prof Neil Ferguson, DPhil^e, Prof Maria Zambon, FRCPath^g, Prof Wendy S. Barclay, PhD^b, Prof Jake Dunning, PhD^{h,j}, Prof Ajit Lalvani, DM^a & on behalf of the ATACC study investigators[‡]](#) [Show less](#)

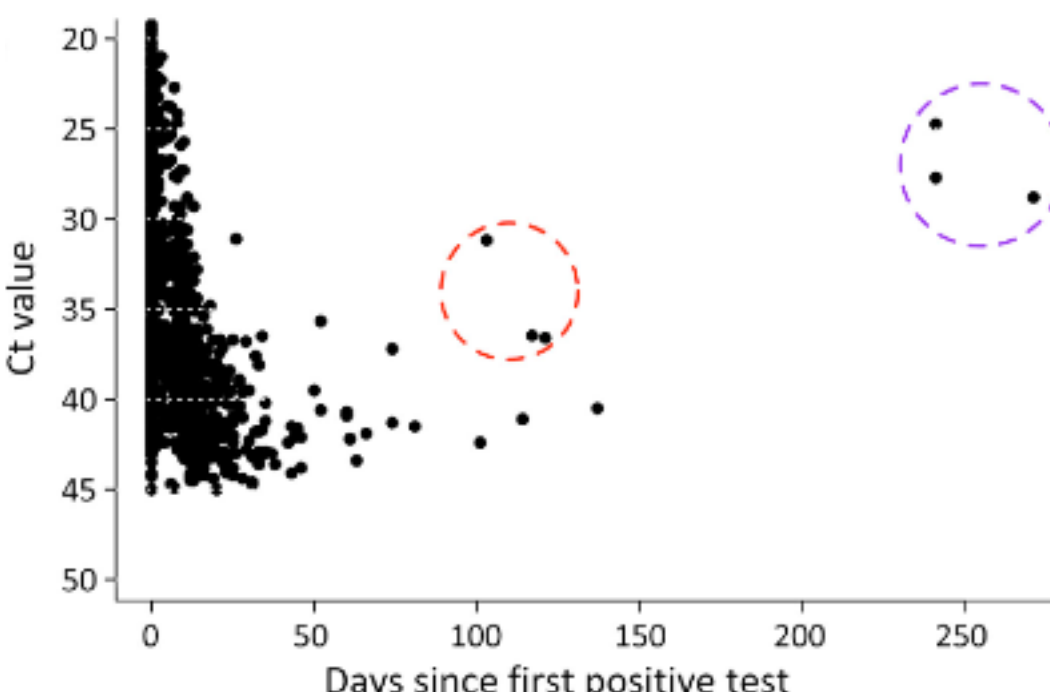


Occupational health programs

EMERGING INFECTIOUS DISEASES®

SARS-CoV-2 Dynamics in the Premier League Testing Program, United Kingdom

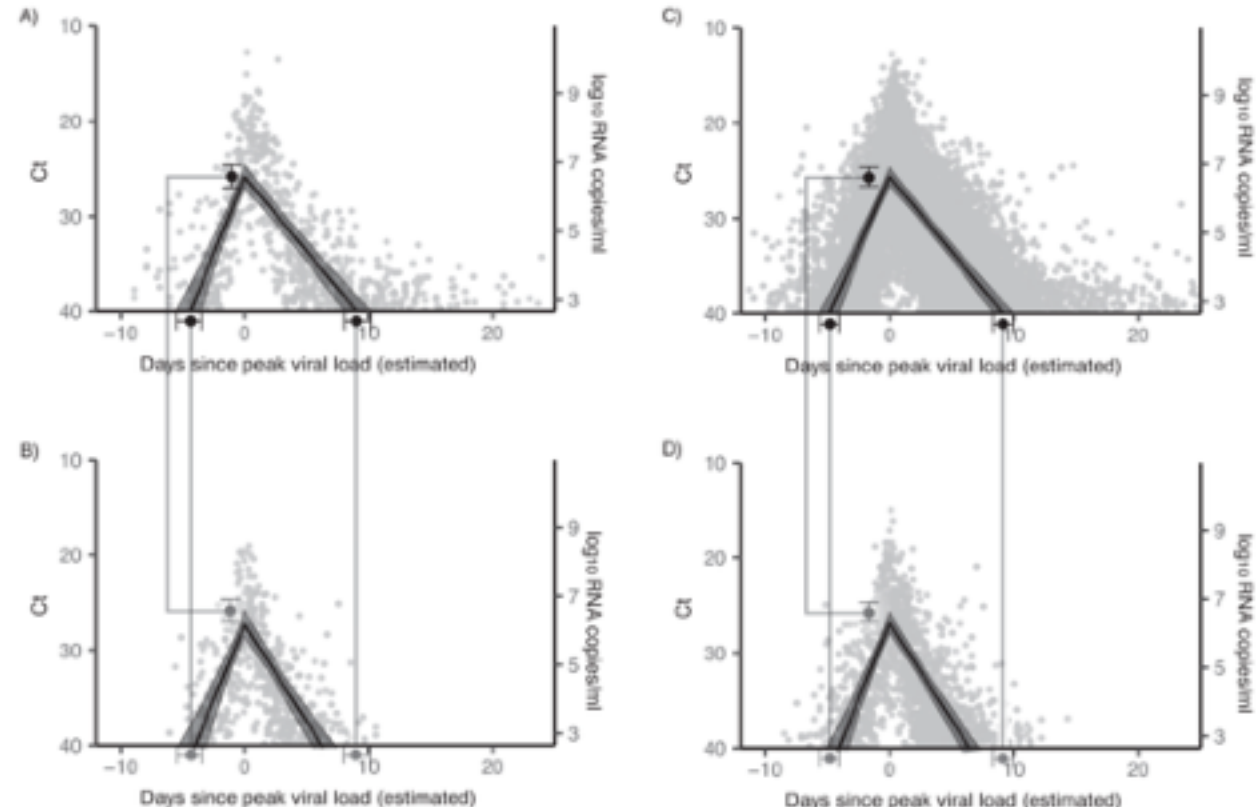
[Adam J. Kucharski, Timothy W. Russell, Joel Hellewell, Sebastian Funk, Andrew Steele, W. John Edmunds, and Mark Gillett](#)
Author affiliations: London School of Hygiene & Tropical Medicine, London, UK (A.J. Kucharski, T.W. Russell, S. Funk, W.J. Edmunds); European Bioinformatics Institute at Wellcome Genome Campus, Hinxton, UK (J. Hellewell); Stride Health Group, London (A. Steele); The Football Association Premier League, London (M. Gillett)
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Viral kinetics of sequential SARS-CoV-2 infections

[Stephen M. Kissler, James A. Hay, Joseph R. Fauver, Christina Mack, Caroline G. Tai, Deverick J. Anderson, David D. Ho, Nathan D. Grubaugh & Yonatan H. Grad](#)

[Nature Communications](#) 14, Article number: 6206 (2023) | [Cite this article](#)

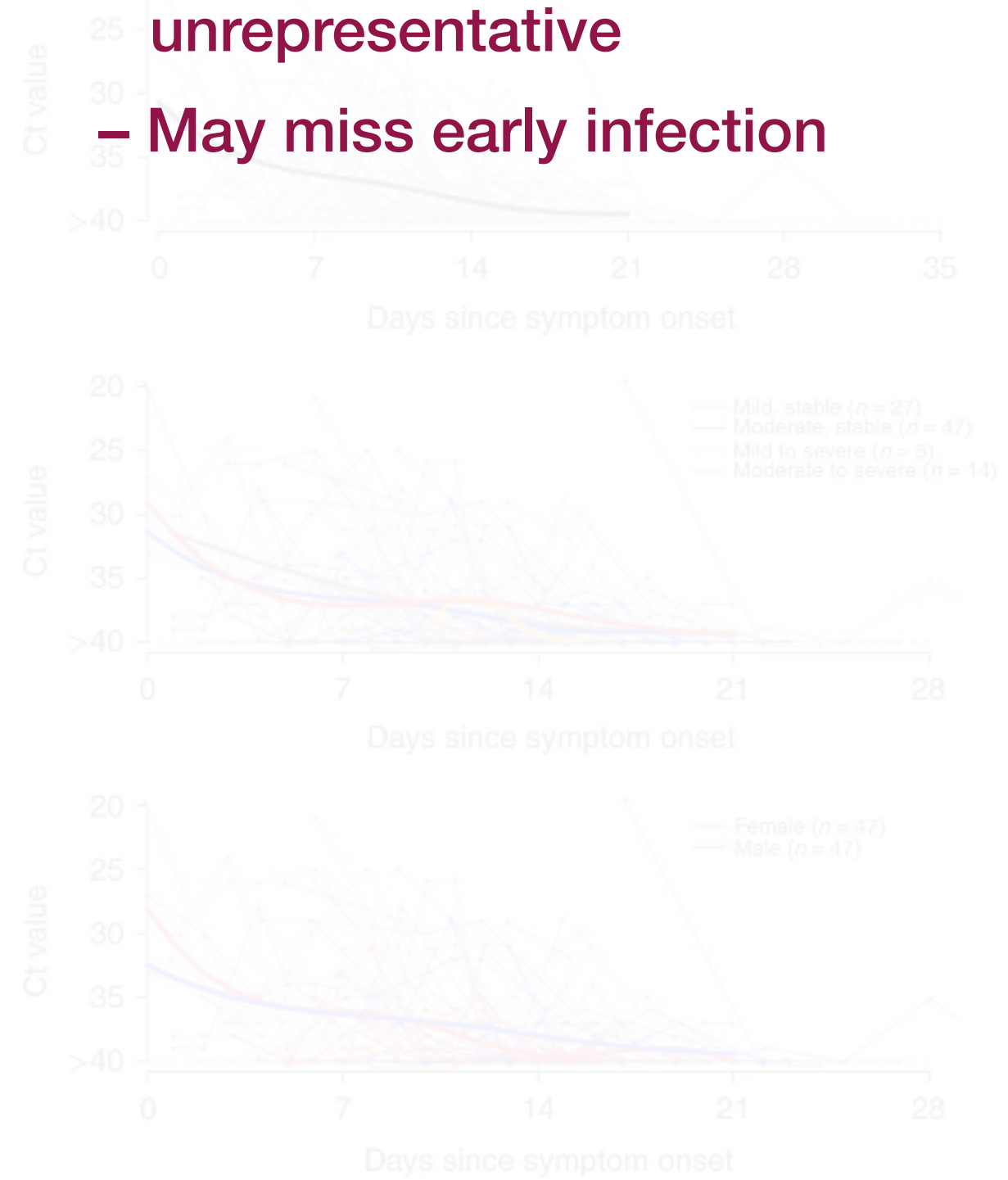


Viral kinetics data during the COVID-19 pandemic

Targeted studies

- + Quick to design/deploy
- + Can be highly informative about key epi parameters

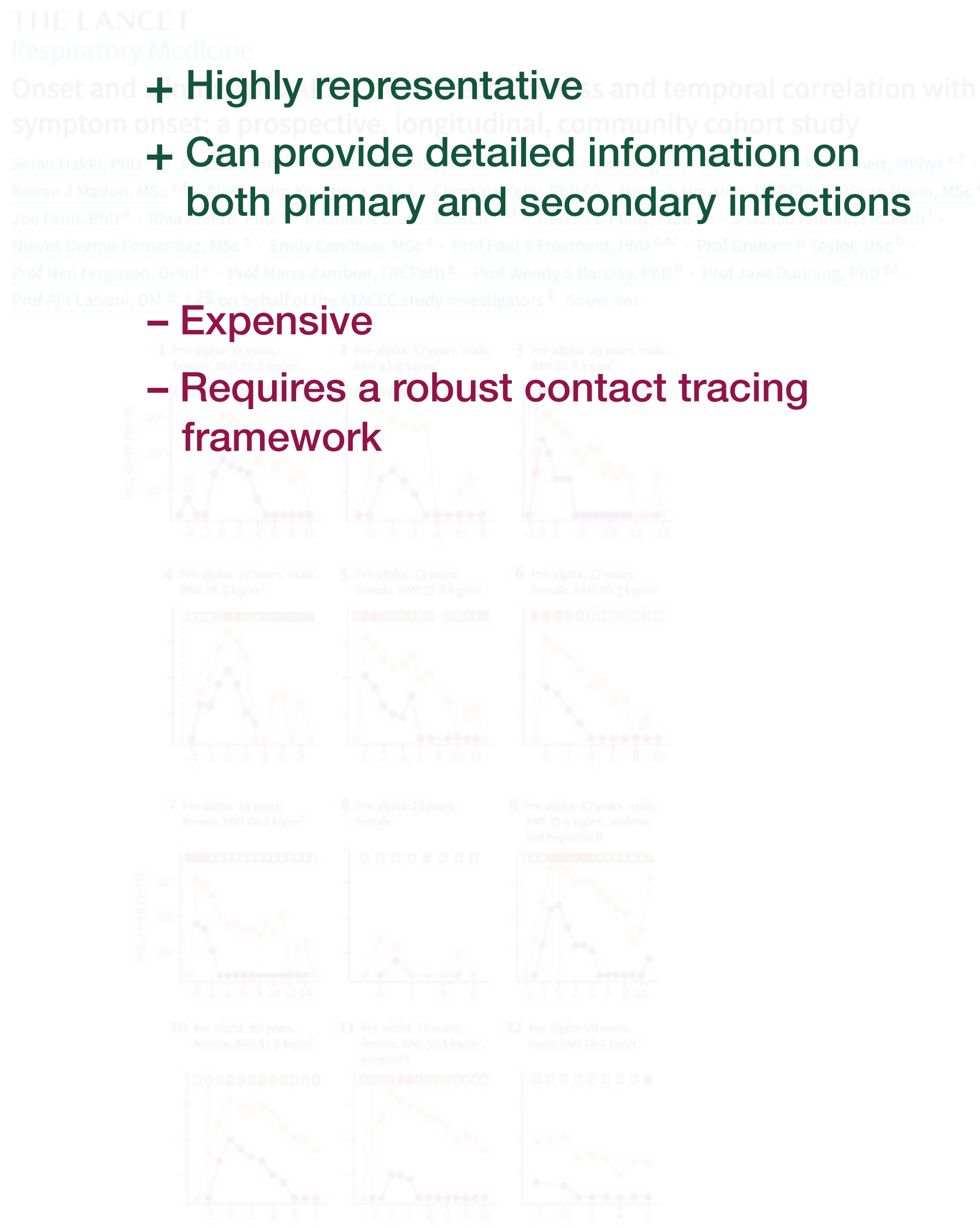
- Sample sizes often small, unrepresentative
- May miss early infection



Large prospective studies

- + Highly representative
- + Can provide detailed information on both primary and secondary infections

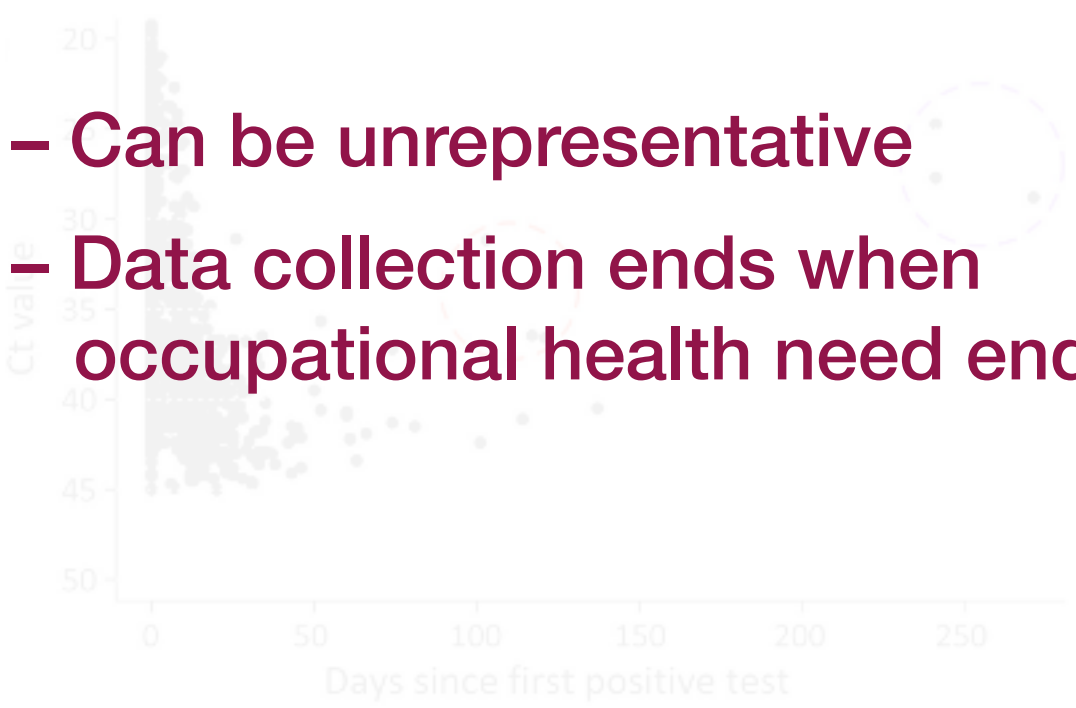
- Expensive
- Requires a robust contact tracing framework



Occupational health programs

- + Can generate huge volumes of data
- + “Cheap” in the sense that the data’s already being collected

- Can be unrepresentative
- Data collection ends when occupational health need ends



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Stephen M. Kissler, James A. Hay, Joseph B. Faure, Christina Mack, Caroline D. Tai, Derrick J. Anderson, David D. Ho, Nathan D. Grubaugh & Yonatan H. Grad

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