

Exploring COVID-19 lateral flow testing engagement and compliance in selected Imperial College Healthcare Trust wards

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Fig 1. Visual aids.

Introduction

Asymptomatic infections have driven the COVID-19 pandemic, accounting for 40.5% of all cases.¹ Consequently, a duty to undertake routine testing has been imposed on healthcare staff. Lateral flow tests (LFTs) are a cornerstone of this, providing absolute sensitivity above 80% in individuals shedding SARS-CoV-2 antigens.² Modelling data led NHS England to require biweekly self-testing and reporting, which Imperial College Healthcare NHS Trust (ICHT) initiated in November 2020.³ The peak pan-London testing compliance rate of 32% was reached in December 2020, but was followed by a steady decline to 7% in September 2021.⁴ The comparable trend across ICHT, coupled with limited published literature, highlights a need for further investigation. This study on ICHT compliance beginning September 2021 had two objectives:

- > Review compliance with LFTs and identify barriers.
- > Implement small-scale interventions to test efficacy and sustainability.

Materials and methods

Phase 1: A questionnaire was given to 56 staff on eight wards. Section one quantified staff's self-testing and reporting tendencies and identified factors influencing them. Section two identified potential interventions and probed for staff sentiment on them.

Phase 2: Drawing on phase 1 results and the efficacy of nudge theory in a prior ICHT hand-hygiene campaign, a two-pronged intervention approach was piloted across seven poorly compliant wards.^{5,6} 'Gentle-nudging' posters (Fig 1) were strategically placed in busy areas to collect staff feedback (poster 1) and encouraging engagement by using popular references (posters 2–7). A ward-led initiative with test kits and QR codes for the trust's reporting form was also piloted, alongside large visual aids advertising them (poster 8).

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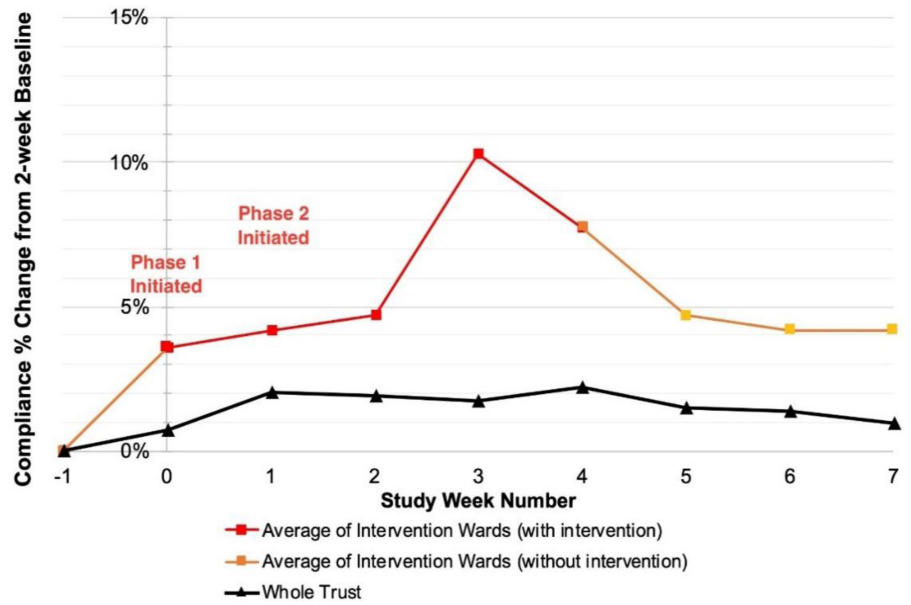


Fig 2. Compliance percentage change from baseline in targeted wards and trustwide.

Results and discussion

Phase 1: Though only 36% of staff claimed biweekly compliance, 52% reported testing 1–4 times a month. Similarly, only 34% always reported results, 41% reported results sometimes. This reveals a discrepancy between published compliance rates and actual engagement levels. Staff had strong preferences about interventions, with 71% finding allocated ward testing time encouraging and 79% supporting mandatory testing.

Phase 2: Hospital-wide compliance fluctuated throughout the study, but its percentage change from baseline average (calculated from the preceding 14 days) never rose above 2.5%. In contrast, there was a peak of 10% increase in average compliance rates among targeted wards on week 3 of the study, though this fell to 7.75% the following week. In the 3 weeks following intervention withdrawal, compliance rates fluctuated around 4% above baseline (Fig 2). This suggests that short-term, intense interventions improved ward compliance, and a long-term, enduring positive (albeit less significant) effect can remain.

Conclusion

This study highlights that healthcare staff are more engaged and supporting of the testing scheme than reported compliance rates suggest. Barriers disclosed by staff focused on their lack of time and frustration with the reporting process, with similar opinions and behaviours found in another study.⁷ Cost-effective solutions to improve engagement in healthcare trusts' schemes do exist and future schemes may perform better if more consideration is given to making necessary resources as accessible and flexible as possible. ■

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