# Promoting HIV testing in primary care following a randomised trial: An MRC phase IV study


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### Background

HIV remains underdiagnosed. Guidelines recommend routine HIV testing in primary care but evidence on implementing testing is lacking.[1-3]

In the RHIVA2 randomised controlled trial, we showed that integrating HIV screening using rapid point-of-care HIV testing into general practice registration health checks in Hackney, a deprived inner London borough with high HIV prevalence, delivered increased and early diagnosis of HIV.[4]

However, interventions effective in the context of a trial may be less so when implemented in routine practice.

Following the RHIVA2 trial, we wished to implement HIV testing across the borough. 20 practices had received HIV testing training during the trial. Thus of the 44 practices in Hackney, we attempted to: a) implement training in the 24 naïve practices (20 control, 4 non-participating), and b) reinforce training in the 20 intervention practices.

### Objectives

To determine the effectiveness of the RHIVA2 intervention when implemented as a routine clinical service outside a trial setting.

### Study design

MRC phase IV study, using an interrupted time series analysis.

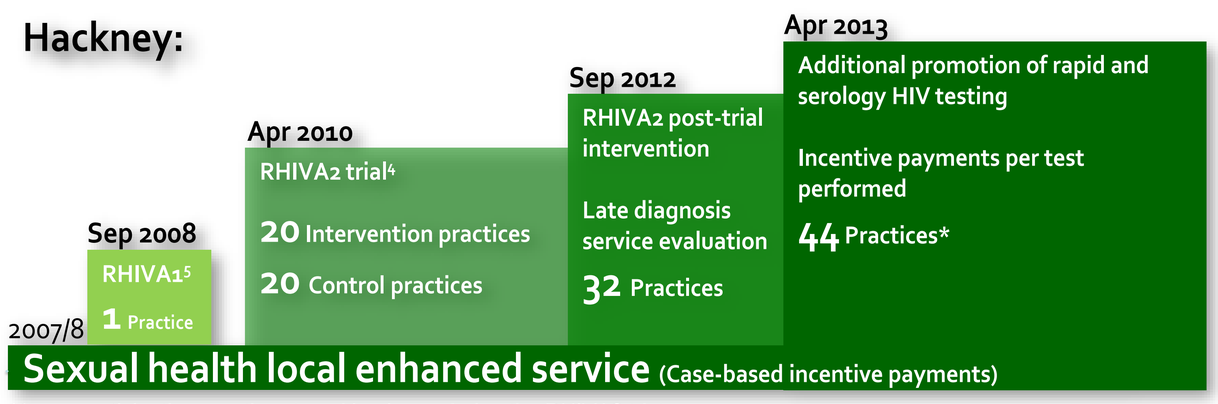
### Study duration

19 April, 2010 to 30 June, 2015.

### Study population

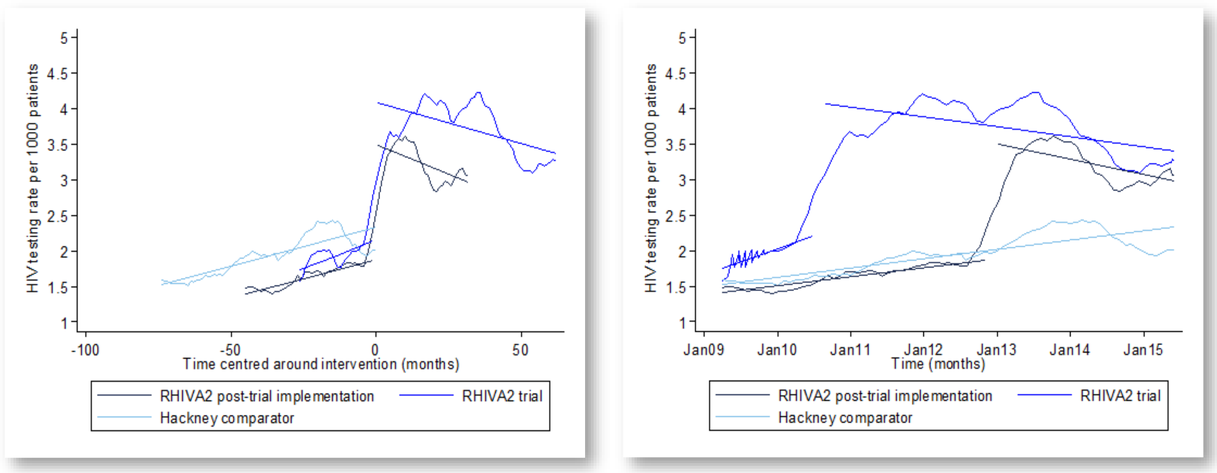
- Individuals aged 16 years or older registering at study practices
- Individuals able to undertake the pre−test discussion in English or with a suitable translator.

### Figure 1: Sexual health service provision and research in Hackney




*1 non-participating practice closed business during the RHIVA2 trial

### Figure 2: Increased HIV testing in Hackney general practice




The medium blue line shows the effect on testing of training 20 trial intervention practices; the dark blue line shows the effect on HIV testing of training 12 naïve practices; the light blue line shows testing in naïve practices that declined training. Graphs are shown as if all practices were trained at the same time.

### RHIVA2 Interventions

*The RHIVA2 trial programme (2010-2012) included:*

- Practice-based educational training session for the primary care team to promote rapid HIV testing (INSTI™ HIV-1/HIV-2 Rapid Antibody Test, bioLytical Laboratories, Canada) at GP registration
- Follow up meeting with a nominated practice lead nurse
- Incentive payment of £10 per rapid HIV test performed
- External quality assessment
- Regular data monitoring for safe diagnosis and referral of newly diagnosed patients into secondary care.

*The RHIVA2 post-trial implementation package (2012-2015) consisted of:*

- Additional modified training to offer both rapid and serology HIV testing at all practices in any clinical setting
- Service evaluation of antiretroviral prescribing and missed opportunities of HIV diagnosis in primary care[6]
- Addition of incentive payments between £7 and £10 per HIV test performed to the sexual health local enhanced service.

### Data collection

Electronic patient record searches for surgery recruitment data, patient demographics and HIV test results.

### Study findings

For HIV promotional activities and testing analysis, please see Figures 1 & 2.

*Implementation uptake:*

A total of 12 naïve practices (11 former trial control practices and 1 former non-participating practice) received the implementation package, and 6 former trial intervention practices were reinforced; 31 practices (13 former intervention, 15 former control, and 3 former non-participating practices) completed the service evaluation.

*Immediate increase in HIV testing:*

Amongst practices that received the RHIVA2 intervention, testing rates increased immediately following the intervention by 85% (IRR = 1.85, 95% CI 1.72 to 1.99), and a similar effect (IRR 1.82, 95% CI 1.72 to 1.93) was observed when including the comparator practices that had not received the intervention during the trial period.

*Gradual decline in HIV testing over time:*

The change in the effect of the intervention following the training phase decreased minimally, albeit significantly, over time (IRR = 0.994, 95% CI 0.990 to 0.997).

### Conclusions

Implementation of HIV testing through research significantly increased HIV testing rates, but regular re-training may be required to keep it sustainable long term.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