Improving the identification and management of patients with chronic kidney disease (CKD) in primary care across Greater Manchester

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BACKGROUND

CKD is a common, heterogeneous condition which defines abnormal structure and function of the kidneys. Many studies report that CKD is underdiagnosed, and modelling of local data in 2009 indicated a 2% gap between recorded and estimated prevalence across Greater Manchester, amounting to 54,000 undiagnosed cases. Early detection, optimal management and treatment will delay progression of CKD and prevent further vascular complications, however general management of CKD, in comparison to other chronic conditions, has proven to be suboptimal.

AIMS

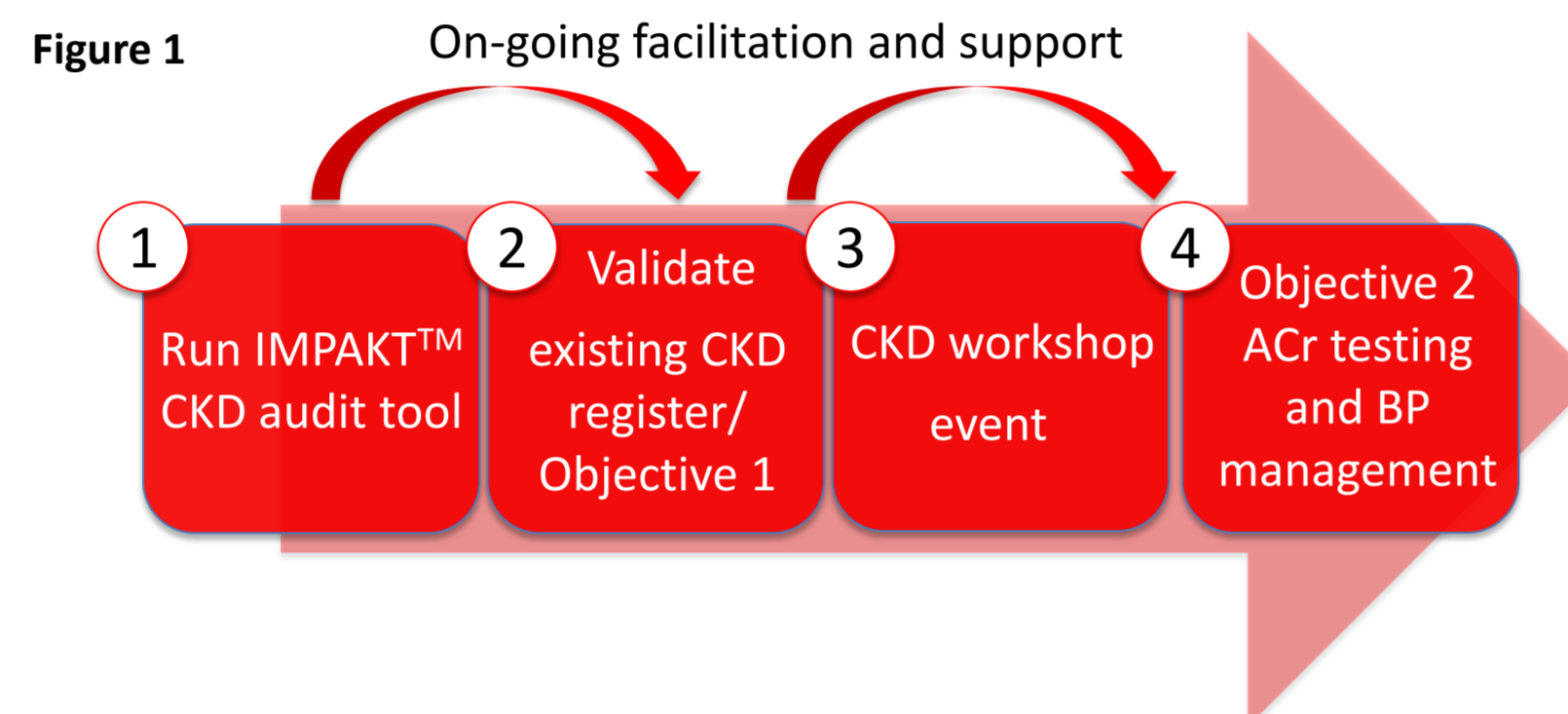Two primary objectives were identified for the project. They were as follows:

1) To halve the gap between the recorded and estimated prevalence on all participating practice CKD registers.

2) For 75% (no exception reporting) of CKD patients to be tested for proteinuria (via testing albumin/creatinine ratio (ACR)) and managed to National Institute of Clinical Excellence (NICE) blood pressure (BP) targets.

METHODS: SAMPLE & SETTING

The CKD improvement project was initially piloted, refined and developed principally in NHS Aston, Leigh and Wigan and NHS Wigan Borough CCG, amongst other areas of GM, between 2009 – 2012.

These data presented here are from NHS Central Manchester CCG between January 2013 and April 2015. Specifically, this data represents practices from the Hulme, Moss Side and Rusholme locality (**H, MS & R**) (7 practices), and Chorlton, Whalley Range and Ardwick regions (**C, WR & A**) (12 practices), culminating in data for 19 practices in total.
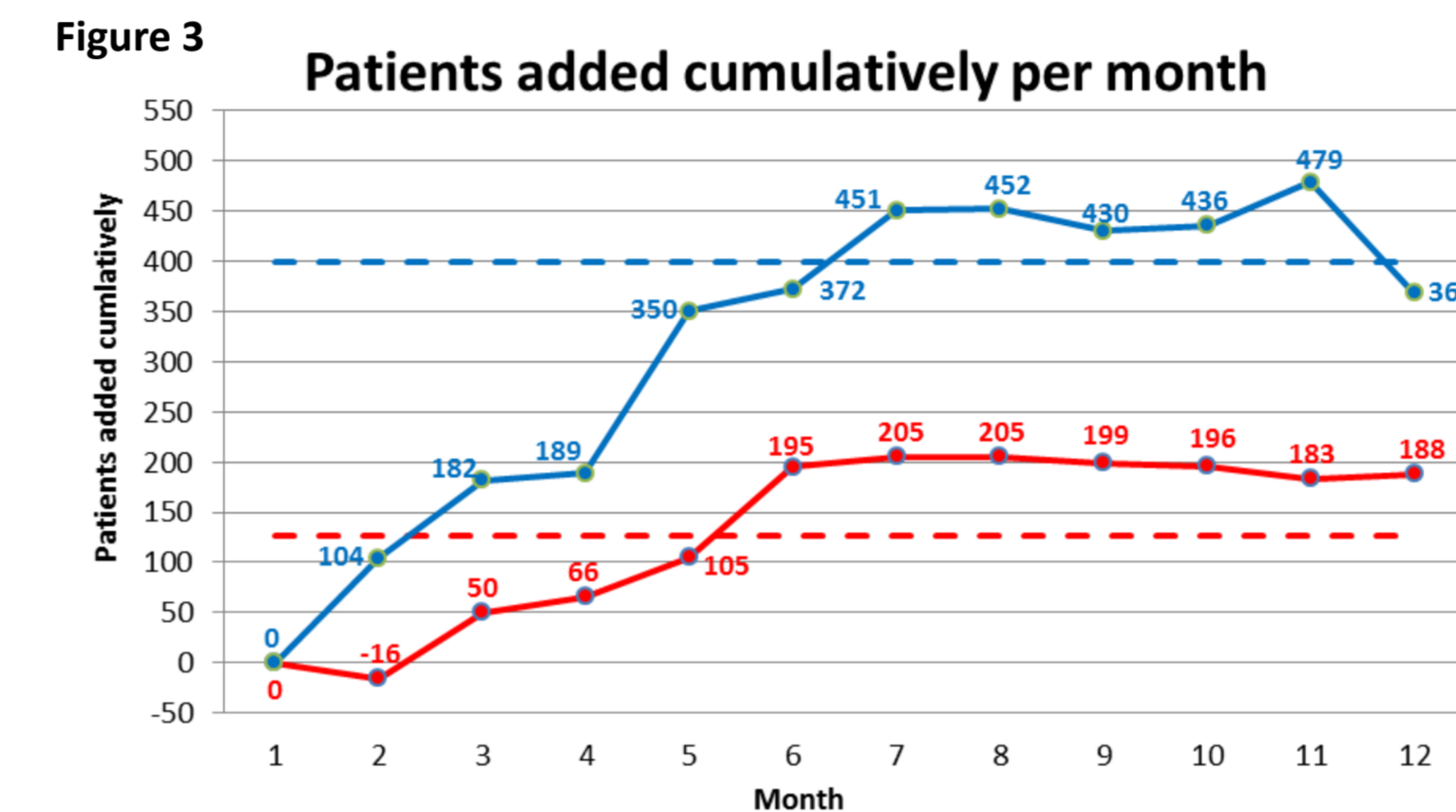
METHODS: PROCEDURE & MEASURES

Figure 1

On-going facilitation and support

1. Run IMPAKT™ CKD audit tool
2. Validate existing CKD register/ Objective 1
3. CKD workshop event
4. Objective 2 ACr testing and BP management

① (Figure 1) Practices submitted an 18+ age/sex profile of their practice population in order to calculate individual expected CKD prevalence. At each practice, the IMPAKT™ CKD audit tool (Figure 2) was installed onto practice systems, producing two lists of patients: 1) Patients currently coded with CKD, highlighting coding inaccuracies and patients coded in error and 2) Patients with eGFRs indicative of CKD but not on the CKD register.

② In order to validate the existing register, requests were made for further diagnostic tests where necessary, patients incorrectly coded with CKD were removed or more appropriately categorised, and any CKD coding updated where appropriate. Patients found with eGFRs indicative of CKD, but not previously on the register were investigated and definitive evidence for diagnosis was sought in order to diagnose or exclude CKD.

③ Educational workshops were provided as a forum for practice teams to learn more about CKD, share learning and troubleshoot through any challenging queries.

④ Once a robust, accurate register was in place, all patients were checked for having a recent ACR test (within 12 months), highlighting presence/absence of proteinuria, and checked to ensure blood pressure adhered to NICE guidance.

Individual facilitation meetings were typically held every 4-6 weeks and a re-audit was completed at 12 months.

Figure 2

IMPAKT™

RESULTS

Figure 3

Patients added cumulatively per month

- Baseline CKD prevalence in **H, MS & R** and **C, WR & A** were 1.52% and 2.27% respectively.
- Target CKD prevalence for **H, MS & R** and **C, WR & A** were 1.80% and 3.08%, equating to an additional 126 patients and 399 patients respectively (Dotted target line in figure 3).
- **H, MS & R** identified 188 additional patients, improving their combined prevalence to 1.94%.
- **C, WR & A** Identified 368 additional patients, improving their combined prevalence to 2.96% (figure 3).
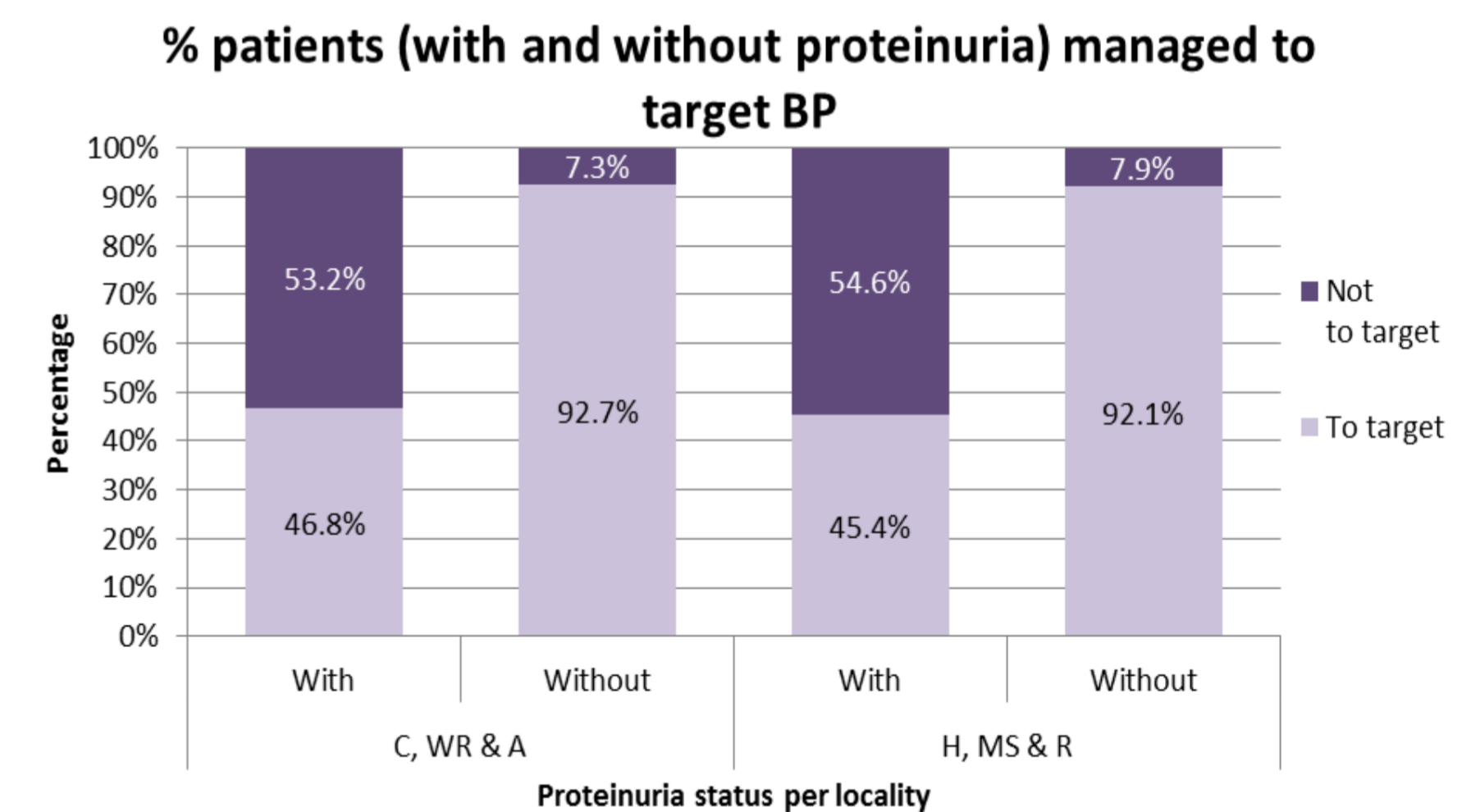- Overall, an additional 556 (previously un-diagnosed) patients, were identified with CKD.

- At baseline, the average percentage of patients on CKD registers who had been ACR tested in the preceding 12 months in **H, MS & R** and **C, WR & A** was 67% and 76% respectively.
- This improved to 91% and 85% respectively, by the project end.
- In both localities, over 92% of patients without proteinuria had their BP managed to target by project end.
- Contrastingly, less than 50% of patients with proteinuria had their BP managed to target by project end (figure 4).

Figure 4

% patients (with and without proteinuria) managed to target BP

Conclusions/future work…

- 556 additional patients were added onto CKD registers, closing the gap between actual and expected prevalence.
- There were improvements in this patient population being managed to NICE guidance. However, patients with proteinuria had suboptimal blood pressure management.
- An evaluation, examining the barriers and challenges to improving management of proteinuria in practice is currently underway.
- This CKD improvement project is currently being rolled out across the remaining localities in NHS Central Manchester CCG and throughout NHS Bury CCG.