# Population health projects

This section provides examples of potential and previously delivered population health projects. A population health project is an improvement project with a focus on improving the outcomes for a group of patients. It is similar to a service or quality improvement. It is different however, from an audit in that the focus is on identifying population-based outcomes that matter (through an analysis of patient data), developing or re-designing interventions through an understanding of the needs of a local population or community, and monitoring improvements in key outcome measures. A population health project can also demonstrate the importance of sectors outside health, particularly local government, in improving health outcomes.

## Ideas for conducting a population health project

* Reduction in recurrent MI by structured nutritional, smoking and PA advice prior to discharge in post-MI patients.
* Routine falls assessment and brief advice and signposting/referral pre-discharge following emergency trauma admissions in >85-year olds.
* Campaign to increase uptake of seasonal flu immunisation among staff in the Obstetric MDT [or in other depts] - and could include b) and in their patients.
* Reducing smoking in pregnancy - among an antenatal population - or ditto for drinking alcohol in pregnancy - both are still at high prevalence in the UK.
* Project to reduce risk of clostridium difficile among patients - through antimicrobial stewardship on the wards on which the trainee works.
* Maximising health improvement in a primary care network through deployment of the social prescriber. This has been left as generic, but the fellow would be expected to identify a priority area to address in their locality, e.g. target tobacco or alcohol consumption in patients with CVD.

## Real life examples of population health projects

**Example 1 – Reducing spread of communicable diseases such as MRSA in the community**

*Need identified*:

Reduction in the spread of communicable diseases such as MRSA in the community.

*Method chosen*:

Working with the local infection control team to undertake a root cause analysis for each case of MRSA identified in the community. Root cause analysis requires an analysis of the patient’s journey and whether any lessons for prevention could be learnt. Usually several patient journeys will be analysed at the same time to understand whether there are any trends/ patterns (such as antibiotics prescribing).

*Learning points:*

To understand how to perform root cause analysis- there are well established toolkits available.

*Possible barrier*:

To identify infection control team based in CCG as some may have moved to another sector.

*Potential outcomes measured*:

1. Reductions in levels of MRSA in the community
2. Reductions in variations in antibiotic prescribing

## Example 2 – Preventing COPD admissions to secondary care

*Need identified*: GP practice has a high proportion of patients admitted to the local secondary care service with exacerbations of COPD.

*Potential reasons identified*:

1. Lack of awareness of COPD guidelines and training for clinicians managing COPD exacerbations
2. Lack of engagement with local rapid response community COPD team
3. Lack of discussion about end of life care for COPD patients with severe disease
4. Lack of access to smoking cessation interventions a) for people with COPD and b) for those patients who have not yet developed COPD

*Interventions:*

1. Development of practice guidelines based on local and national information;
2. System for linking at-risk patients with a named GP to improve continuity of care for vulnerable individuals;
3. Educational sessions involving practice GPs, nurses, district nurses, and community COPD liaison nurse;
4. Referrals to community COPD team to improve patient education on managing exacerbations, assessing psychological health, and preventing social isolation;
5. Information on accessing rapid response community COPD team made available to all through practice intranet;
6. Liaison with local palliative care consultants in education on end-of-life care for those with severe end-stage COPD.
7. Education for patients and carers so they can better manage their own condition and recognise and treat an exacerbation at an early stage
8. Smoking cessation advice tailored for this patient population [it is never too late – significant improvements in health outcomes can be achieved by quitting smoking at any age

*Outcomes measured:*

1.   Number and cost of admissions for exacerbations of COPD

2.   Smoking quitters among patients with COPD

## Example 3 – health needs of patients with serious mental illness (SMI)

*Need identified*:

Patients with SMI are at high risk of potentially preventable physical conditions.

*Potential reasons identified*:

1. Patient group difficult to engage with
2. Sharing of information with CMHT variable
3. Lack of awareness of the physical healthcare needs of SMI patients

*Interventions:*

1. Set-up a nurse-led physical health check clinic with proactive sharing of information with specialists
2. Support from reception with patients to arrange appointments, and where appropriate, reminders

*Results:*

1. Proportion of SMI patients with health checks increased
2. Satisfaction with the health check clinic high
3. Perception of communication with CMHT improved
4. Patient satisfaction with service improved

**Example 4 – Improving diabetes care in general practice**

*Need identified:*

Significant variation exists across GP practices in a local area in the proportion of diabetic patients meeting national diabetes audit criteria for good quality care (e.g. HbA1C, BP, and Cholesterol levels, annual foot exam).

*Method chosen:*

A multi professional team - including GPs, diabetologist, practice nurses, clinical nurse specialist, podiatrist, managers, and patient representatives – undertook a process mapping exercise of current diabetic management in primary and secondary care. National and international evidence and guidance was reviewed and best practice was identified in other parts of the country.

The diabetes pathway was re-designed. Local care networks of GP practices agreed to review diabetes care data, and community-based diabetes review clinics were established in each care network, serving all GP practices within the network. Clinics were run jointly by the diabetes clinical nurse specialist and practice nurses, including podiatrists and dieticians. Clinical management and referral guidelines were agreed, with MDT meetings established with GPs and diabetes medical and nursing specialists to manage complex cases.

Regular GP practice educational roadshows and learning events were established, with training for practice nurses. An expert patient programme was established, with peer-support groups in each local care network.

*Outcomes:*

1. Increased compliance with national diabetes quality standards and reduced variation between GP practices.
2. Reduced referrals to out-patients and in the longer term, reduced inpatient admissions, reduced incidence of diabetic complications.