Medicines Optimisation Innovation Lab - April 2016

Innovation Lab NI

The Northern Ireland Public Sector Innovation Lab aims to improve public services by creating a safe space to formulate and test ideas, make mistakes and learn from them. Developing refined, added-value solutions to complex challenges.

Medicines Optimisation Innovation Lab Team
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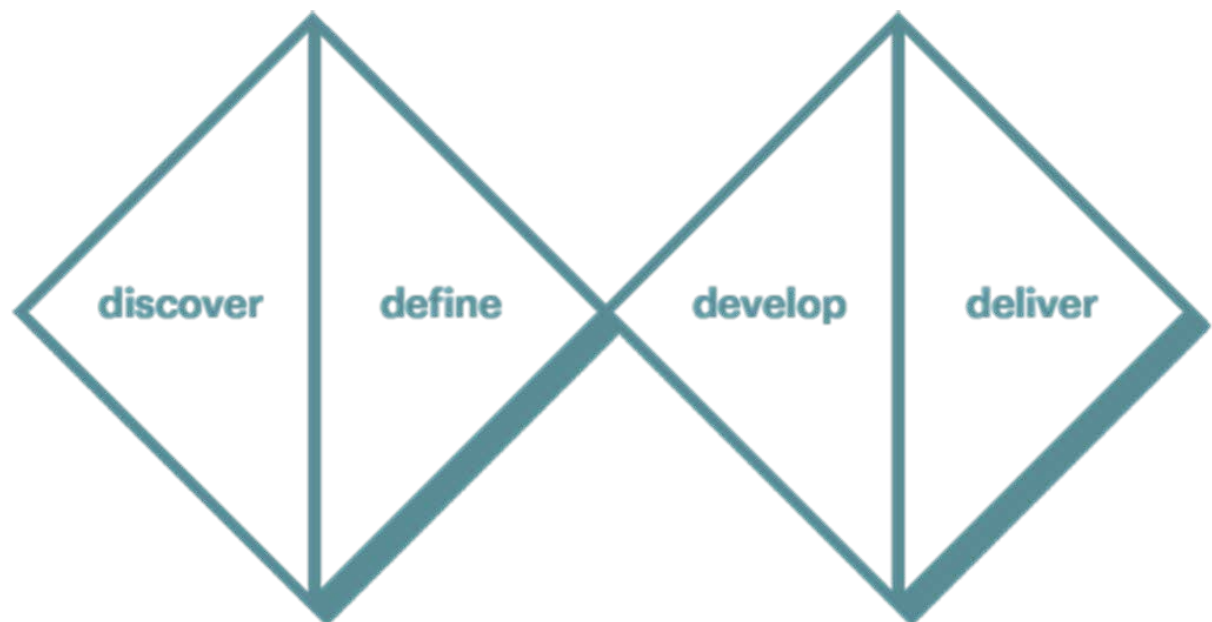
The Challenge

The Department of Health, Social Services and Public Safety (DHSSPS) has developed a Quality Framework for Medicines Optimisation. Medicines Optimisation is defined by NICE as 'a person centred approach to safe and effective medicines use to ensure that people gain the best possible outcomes from their medicines'. Effective patient involvement is a fundamental theme running through the Framework which introduces three new Quality Standards that focus on the patient experience:

- Safer prescribing with patient involvement
- Better information about medicines
- Supporting adherence and independence

The Innovation Lab together with the DHSSPS wanted to understand how to put patients at the centre of the medicines prescribing process and enable them take ownership of their treatment and medication.

By focusing on patients and their experiences, the goal was to help patients improve their outcomes; take their medicines correctly; avoid taking unnecessary medicines; reduce wastage of medicines; and improve medicines safety.

The Approach

discover define develop deliver

The Innovation Lab uses the double diamond approach for the lab structure. The approach begins with insight gathering (discover) followed by the definition of the challenge (define). A design lab is used for storytelling and idea generation (develop), before the final idea evaluation workshop with the Lab Team (deliver).

The lab took place over four days involving patients, Health Care Professionals, patients, the DHSSPS and third sector participants. Together they generated insights and ideas which were then voted upon and developed into project action plans.
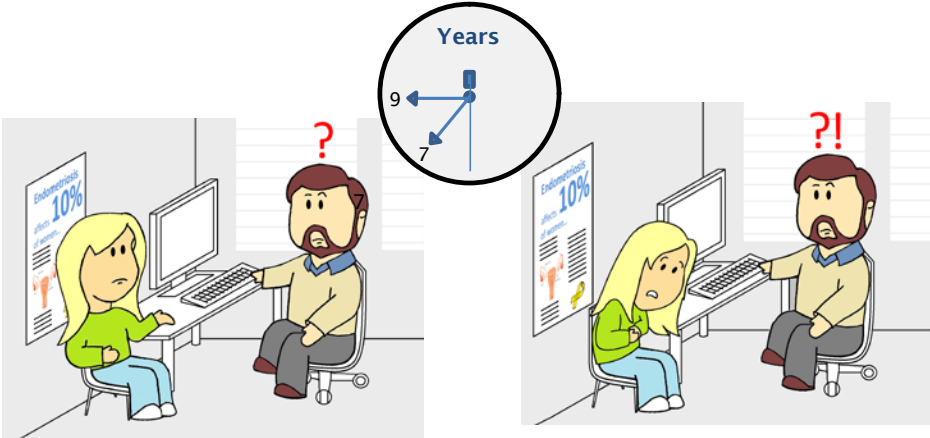
Endometriosis Group

1

The Innovation Lab went to speak to the Endometriosis Support Group NI at one of their monthly meetings

ENDO NI

2

The women in the group told us their stories about their diagnosis and medicines

3
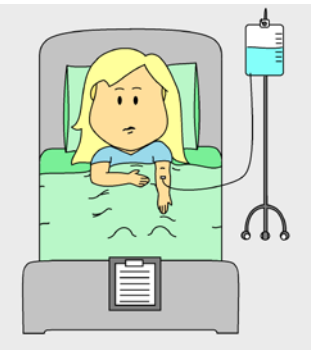
Years

On average it took 7-9 years for the group to be diagnosed with endometriosis after being misdiagnosed with IBS and mental health issues

4

EVERY member of the support group has ended up in A&E with extreme pain, this is a last resort for these woman

5

After being administered morphine, many woman have had to spend a night in hospital

6

There seems to be a lot of inconsistency in prescribing of medication to woman with endometriosis

The endometriosis group feel if they were trusted to manage their own pain medication, they would need to make less visits to A&E and their GP saving the NHS money and time

Defining the Design Challenges

Patient Stories

The Innovation Lab spent two months interviewing patients to hear about their diagnosis and medication. We presented the information in many different ways including cartoon storyboards, long form stories and pen pics.

Insights

We asked our lab group to come up with insights based on the patient stories we shared with them. The group mapped these insights onto a typical patient journey to find gaps in the medicines prescribing service. These gaps formed the basis for the design challenge and objectives to be used for idea generation.

Challenge - rethinking the role of the patient in medication

1. Provide an experience which is unique to the individual, from when they start to feel unwell to starting medication

2. Enable people to manage their medication confidently and in a way that fits with their lifestyle

3. Help people understand how to get the best from their medication

4. Ensure that people are on the right medication for them at the right time, throughout their life

Handwritten labels:

- options
- Diagnosis
- Review
- Supply
- Prescribing
- Advice / Information
- Advice / information
- Tak... medic...
- repeat prescribing
- ...gement (Management)

Sticky notes (pink):

- GAP – Self management at each stage
- GAP – who plays what role at each stage?
- GA... rol... r...
- Not everyone wants medication
- ...NS ...ilikes ...scribes

Sticky notes (yellow/green):

- COMMUNICATION RE MEDICATION CHANGES

Sticky notes (orange):

- Gap focus on wellness as a success criteria
- Gap Community pharmacy M.O. role

Octagon cards (orange border):

- Nothing Prescribed
- Don't take medication
- Stop taking medication

Octagon cards (blue/purple – Standards):

- Standard 1 Safer prescribing with patient involvement — GP
- Standard 3 Supporting adherence and independence — GP
- Standard 1 Safer prescribing with patient involvement — Community Pharmacy
- Standard 3 Supporting adherence and independence — Community Pharmacy
- Standard 3 Supporting adherence and independence — Patients
- Standard 2 Better information about medicines — Community Pharmacy
- Standard 2 Better information about medicines — GP
- Standard 1 Safer prescribing with patient involvement — Patients
- Standard 2 Better information about medicines — Patients
- Standard 3 Supporting adherence and independence — Patients

Octagon cards (grey/green – activities):

- ...e GP to ...iagnose ...scribe
- Going to doctor due to a specific illness
- Getting a diagnosis from the GP about an illness
- Getting information from the GP about an illness
- Managing positive side effects – Side effects which make the patient feel good
- ...and / or consultants to discuss or review medication
- Receiving medication reviews from doctors
- Regular visits to condition specific nurse and / or other health professional
- Managing negative side effects – Side effects which make the patient feel bad
- Experimenting with doses and types of medication in conjunction with GP or consultant
- Going to routine checkups or to risk based checkups
- Getting ...rmation from ...GP about ...rescribed ...edication
- Checking prescription to make sure it matches with their understanding and expectations
- Receiving information from the pharmacist about medication
- Managing changes in daily routine – Going on holiday
- Asking pharmacist about changes to symptoms or about side effects
- Managing fear and anxiety associated with medication
- Going to the pharmacist to get medication
- Making up pill boxes on a weekly basis
- ...dering repeat rescriptions
- Manag... cycles ... prescri... each m...
- Tak...
- Integrate and associate their medication into and with daily tasks
- Research on the internet about their medication using 'trusted' sites
- Attending peer support groups
- Read information booklet and medication packaging
- Creating folders of information on their own medicines in case of emergencies
- Creating ... graph... spreadsh... monito... medicatio...
- Managing the effect of medication on personal life
- Research on the internet about their medication using patient forums
- Making an emotional connection with medication
- Researching how to manage medication
- Talking to family and friends about their medication

Other handwritten notes:

- no accessible Info
- ...alking ... family ... friends ...ut ...ds

Idea Generation and Prototyping

Research & Ideas

The Innovation Lab researched past, present and future initiatives concerning medicines optimisation. The initiatives were displayed around the room during our design lab and we asked the participants to vote on the most insightful aspects with a blue dot.

After the participants read and discussed the displayed information, each group was asked to generate ideas based on the defined design challenge and objectives followed by voting on which ones they thought were the best.

Prototyping

Six ideas were selected for prototyping during the design lab. The groups used card, crayons, markers and other materials to help visual the idea.

The prototypes included a role-play, a training plan, a 3D decision wheel and a service map.

Refinement of Ideas

The six prototyped ideas were presented to the lab team during the refinement stage of the process.

After the evaluation of the six prototyped ideas, five have been taken forward for further action.

1. Medicine Review at Community Pharmacy

2. Patient Clinical Review

3. Family Carer Training Plan

4. Promote the Increased Utilisation of other Health Care Professionals

5. Good Morning Call Service and Dedicated Medicines Page on NI Direct

There were also several ideas that had a high number of votes but were not selected for prototyping.

These ideas were also evaluated based on their desirability, feasibility and viability by the lab team and four have been taken forward for further action.

6. Involve patients in Development of Staff Training

7. NICE Supported Pack Information

8. Use Big Data

9. Medicines Care Plan

09
Doctors can't do it all

The health landscape has changed drastically since health systems were developed. The health challenges met by professionals look very different today, yet the roles and responsibilities of healthcare professionals remain surprisingly static, and they are struggling to keep up. A changing landscape calls for the right workforce. We need to diversify the provision of care and be smart about who does what.

NHS Diabetes Prevention Programme

DiABETES

The NHS Diabetes Prevention Programme aims to reduce the number of people who develop type 2 diabetes, by encouraging people who are at risk to adopt evidence based behavioural changes. Diabetes treatment currently accounts for 10 per cent of the total NHS budget of around £10bn per year.

NHS England, Public Health England and Diabetes UK are working together to ensure that in the first year 10,000 people are enrolled in the programme. It will subsequently be rolled out nationally from March 2016.

The Government is encouraging 'love their pharmacist' by visiti like coughs and colds.

This competition aims to find Br pharmacist and celebrate the gr pharmacists from all sectors do, going above and beyond the cal name of excellent patient care.

Seeing a pharmacist can significa pressure on other parts of the he example, on average, around a f spent treating people for conditi dealt with by a community pharn estimated that almost 1 in 10 visi dealt with by a pharmacist.

Bristol NHS
NHS Trust

Inclusion of medicines adherence in the Making Every Contact Count scheme

Rollout of healthy living pharmacies

Promotion and support of self-care

MO Projects 2013-2016

Inclusion of medicines adherence in the Making Every Contact Count scheme

Optimisation of inhaler devices for patients with carers

Support and training on medicines administration for carers

Service to improve medicines support from community pharmacists for patients with dementia who are living at home

Multidisciplinary care homes support

Nanobots in Blood

The future is coming where nanobots (tiny robots) can function like our own white blood cells and destroy bacteria and other pathogens.

These miniature robots could perform small tasks like delivering chemotherapy 1000 times more powerful than using drugs and would not cause as many side-effects to patients like the current treatments do. Other specific types of nanobots that are being developed are Microbivore, Respirocyte, Clottocyte, and Cellular repair nanobots that can destroy bacteria, carry oxygen, create blood clots for wounds, and repair cells.
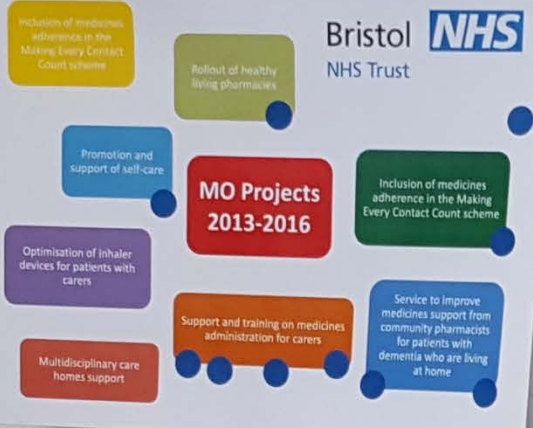
Open mHealth – Chronic Pain

Trialist allows a clinician and patient to collaborate to choose which treatment is best for them. You can compare treatments based on length of time taken and dosage. The app guides a patient to take their assigned treatments at the correct time, and prompts them to report their pain symptoms and side effects.

Once the patient has completed the cycles of different treatments, the symptom and side effect data is analysed, and the patient and clinician provided with results of the study. This provides statistical indication of which treatment was more effective at controlling their pain, along with the burden of any side effects.

02
Help people to help each other

New models of volunteering, such as time banks, have exploded all over the country, tapping in on the wealth of knowledge and skills in communities. This knowledge is particularly important when it comes to health conditions. Most of us will have received useful advice from relatives, friends or neighbours when suffering from a health complaint. Health services don't capitalise on this experiential knowledge, which can be just as important as biomedical knowledge for living with a condition, or remaining healthy in the first place.

A Better E

No one likes needles, especiall inexperienced phlebotomist. Gr way to run tests with micro-sam draw. The benefits are a better pa which can be substantial.

one tiny di
changes
everything

Mar soci Con dise are s If we chall and s healt and c peopl apps impac

aceutical giant Novartis has a deal with Google to develop its contact lens to help diabetics r their glucose levels.

esigned to measure the level of e in the wearer's tears and unicate the information to a phone or computer.

03
Take self-management to the extreme

How much time does the average person spend with healthcare professionals? Even patients with long term health conditions will spend on average just five hours a year interacting with a clinician. The rest of their waking hours – all 8755 of them – patients are looking after themselves. Often they are struggling, and sometimes failing, which often results in admission to acute services for crisis support. What if those precious five hours were focused on helping people to successfully manage their own health and preventing them from ever reaching this point?

Action Plans

Idea	Recommendation	Owner
Medicine Review at Community Pharmacy	A short review by a community pharmacist which evaluates, updates and explains the patient's medicines. This is not an in depth clinical review but will answer patients concerns about their medicines, dosage and side effects. **Actions** 1. Follow up pharmacist access to Northern Ireland Electronic Care Record (ECR) 2. Plan short term pilot	DHSSPS
Patient Clinical Review	An in-depth review of patient's condition, diagnosis and medication. **Actions** 1. Clearly define roles and responsibilities, who should carry out the review, when and how? 2. Research whether the medicine review can trigger a full clinical review	DHSSPS & HSCB
Family Carer Training Plan	Develop a suite of resources to provide carers with information about medicines **Actions** 1. Contact trust carers leads and Carers NI to identify existing resources and discuss ideas for proposed solutions.	DHSSPS in partnership with carers associations
Promote the Increased Utilisation of other Health Care Professionals	Develop a system where patients have the information they need to identify an appropriate health care professional to get the right treatment and advice. **Actions** 1. Review and collate relevant information 2. Engage with relevant stakeholders 3. Develop platforms where patients can access the information	DHSSPS

Idea	Recommendation	Owner
Good Morning Call Service and Dedicated Medicines Page on NI Direct	Expand good morning phone call service already offered by the private sectors to include more information and more platforms for delivery. Actions 1. Assess cost and feasibility of expanding the good morning call service 2. Investigate already existing services and apps 3. Further discussion on appropriate information to be added	DHSSPS

The Innovation Lab NI wish to thank

Belfast Healthy Cities

Community Development and Health Network

Department of Health, Social Services and Public Safety

Health Care Professionals

NI Direct

Patient and Client Council

Patient Representatives

Technical Representatives

Third Sector Participants

Department of **Finance**
www.finance-ni.gov.uk

Department of **Health**
www.health-ni.gov.uk

Objective 2 – Enable people to manage their [...] with their [...]

- Managing expectation ie. antibiotic pain meds
- ...hen they
- Use Communication Navigation Process
- Patient centred – feel involved not like another number
- Tradition. –lifestyle
- Tech + Lifestyle = Answer
- Involving service users in GP / Pharmacy Training
- You-tube Patient info
- YOUR RECUP...
- IN INFO. MORE VIRUS
- Improve patient field knowledge.
- Engage / involve patients
- Re-nurture health & well-being info.
- Electronic health [...] to include [...] on medication
- Repeat Dispensing Scheme
- KISS
- KEEP IT SIMPLE + SMART.
- Lifestyle info [...] when prescribing
- Individual patient plan.
- POPULATION IS BETTER INFORMED THAN EVER
- 8 Improve communication between consultants & GP
- Listen to patients & believe them!
- Legitimise in moving away from norm.
- PATIENTS INNOVATE WITH PHARMACY + RESEARCH
- CARE PLANS GIVEN [...]
- Cultivate team approach to engagement... patients as part of the team
- Allow pharmacists to alter medication to [...] waste
- Reduce quantity of medication dispensed.
- Information should be safe & accurate
- Awareness of cultural differences.
- Multi-disciplinary team work.
- HCP's need non-judgemental attitude.
- SEEING THE PATIENT AS A PERSON RATHER THAN A NUMBER?
- Constant Re-eval...