



magpie.

Tackling Medicines Waste Through Behavioural Science:

**A Human-Centred Approach
to Reducing Repeat
Prescription Overordering**



magpie.

Lou Hallworth

Lead Campaign Consultant

Christopher Hulme

Business Development Manager

wearemagpie.com

hello@wearemagpie.com

The challenge

Nationally, overordering prescriptions is a significant issue leading to **monetary loss, environmental waste,** and potential **health risks** for patients.

It is a complex challenge driven by **habits, risk perceptions,** and **system pressures.**

Commissioned by NHS North East and North Cumbria (NENC) ICS, our aim was to **understand current opinion and behaviour around the topic of overordering** and stockpiling of medicines, from both a **stakeholder and public perspective.**

Rooted in this insight, we aimed to develop a **creative behaviour change campaign** to encourage patients to stop and question their need for medication when they come to re-order, ultimately **resulting in a decrease in overordering and stockpiling.**

Our approach

The campaign approach consisted of four stages, led by stakeholder and audience insight before moving into campaign creation and activation.

- 1 Insight - Stakeholder interviews and public survey** to gain further understanding of the issue, to assess behaviours and motivations and to capture baseline data for the evaluation.
- 2 Insight-led strategy & testing** - Development of the campaign messaging based on the brief and COM-B analysis, followed by testing with the audience.
- 3 Campaign development & activation** - Design and activation of final campaign.
- 4 Evaluating impact** - Evaluation, including post-campaign survey.

01. Insight



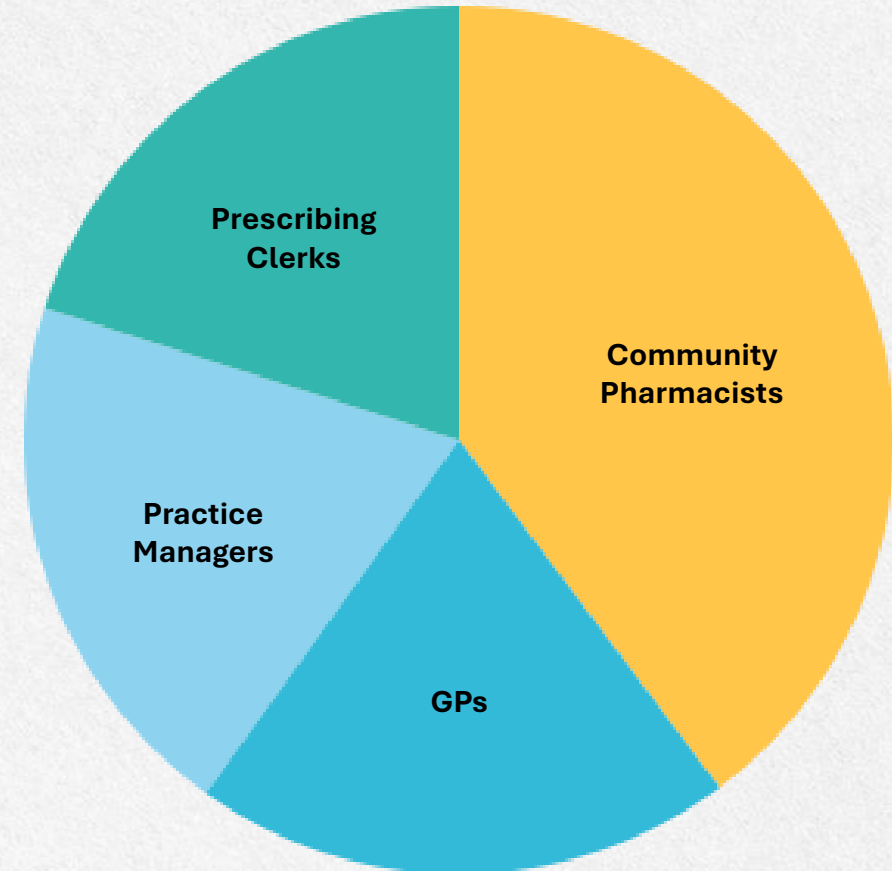
Stakeholder Methodology

Research Design

- **Format:** 45-60 minute one-to-one virtual interviews ($n = 10$) analysed using thematic analysis.
- **Recruitment:** Facilitated by the NENC medicine optimisations team.

Sample ($n = 10$)

- 4 Community Pharmacists
- 2 GPs
- 2 Practice Managers
- 2 Prescribing Clerks



Public Methodology

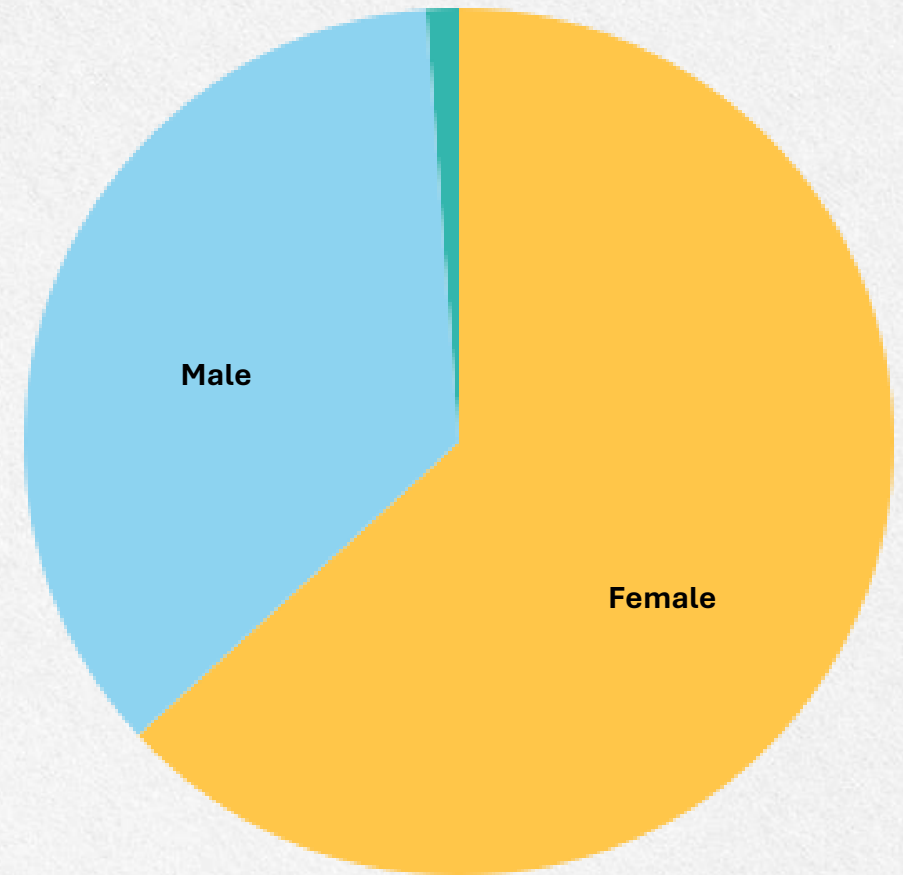
Research Design

- **Format:** 10-minute online survey analysed by the behavioural insights team.
- **Recruitment:** Targeted via Prolific (national market research platform) to reach specific demographics.
- **Target audience:** Adults in North & North East Cumbria, with a focus on those on repeat medication for long-term conditions.

Sample Size: 301 completed surveys.

Demographic profile (n=301)

- **Gender:** 63% Female, 36% Male.
- **Age:** Broad spread, with 50% aged 25-44 and 35% aged 45-64.
- **Ethnicity:** Predominantly White British (95%).



Who and why? (stakeholder perceptions)

Who stockpiles?

- Polypharmacy patients (multiple medications)
- Older population
- Exempt patients/free prescriptions

Why do they stockpile? (the drivers)

- **Routine and automation:** Patients often "tick everything" on repeat lists out of habit, exacerbated by automated systems that bypass GP review.
- **Fear and anxiety:** Patients fear running out or mistakenly believe that missing an order will remove them from the repeat list.
- **Systemic factors:**
 - **Cost perception:** Lack of financial consequence for patients leads to a disconnection from the value of "free" medication.
 - **Incentives:** Funding models rewarding dispensing volume create a perceived disincentive for pharmacists to intervene.
 - **Literacy barriers:** Patients with limited literacy may order everything to avoid the complexity of specifying individual items.

Thematic Insights (key public beliefs and perceptions)

The 'rational' stockpiler

Stockpiling is often a rational response to systemic failure. **63% cite anxiety about running out as a driver**, and 56% have experienced past supply challenges.

The knowledge - behaviour gap

74% believe stockpiling is a problem for the NHS, yet many don't recognise *their own* "safety net" as stockpiling.

Financial impact resonates

Patients understand the NHS impact (waste/cost) better than expected and are motivated by it.

Busting the ‘Free prescription’ myth

Contrary to stakeholder beliefs, we found
no significant link between free
prescriptions and likelihood to stockpile.

02. Insight-led strategy & testing



Strategic Aim

To shift patient behaviour from automatic re-ordering to conscious reflection, encouraging patients to question:

"Do I actually need this right now?"

Insight-led Campaign Strategy

Key insight integration:

The "Who": Patients on multiple medications or 'as needed' items (inhalers, creams) are highest risk.

The "Why": A lack of self-recognition ("It's not overordering, it's safety") requires us to reframe the narrative.

Communication objectives

- 1 Awareness (Capability):** Define "stockpiling" clearly. Ask: *"Do you know how many medicines are in your cupboard?"*
- 2 Education (Motivation):** Connect individual actions to the massive collective impact (waste/NHS resilience) to drive motivation without blame.
- 3 Empowerment (Opportunity):** Provide simple, friction-free calls to action (e.g., "Check the cupboard") supported by clear web resources.

03. Campaign development & activation



Strategic Developments

Purpose of testing: To "stress-test" messaging routes and approach against the target demographic.

- 1** **Lead with money:** The financial statistic (£20m) became the "hook" to grab attention, followed immediately by behavioural instructions.
- 2** **Define the action:** "Pausing" a prescription was a new concept to many. We needed to explicitly explain *how* to pause and reassure them it wouldn't be permanent.
- 3** **Visualise the problem:** We visualised specific items identified as high-waste (inhalers, creams, eye drops) to trigger recognition.

Turning strategy into action

To move patients from *passive awareness* to *active behaviour change*, we executed a phased, multi-channel strategy designed to guide the user journey.

Campaign Activation – A Phased Intervention

Phase 1: The ‘Hook’ (Awareness)

Goal: Build traffic and disrupt habits.

Message: We leveraged the high-impact "Financial Waste" and "NHS Savings" messaging identified in testing to grab attention.

Phase 2: The ‘Nudge’ (Action)

Goal: Convert awareness into specific behaviours.

Message: We retargeted engaged users with practical, friction-reducing prompts: "*Check the cupboard*", "*Check your pharmacy bag*" and "*Set reminders (routine focus)*".



NHS

Are your medicines stacking up?



NHS



NHS

£20 million
is wasted every year
on unused medicines
across our region.



NHS

That would
pay for an extra
535 nurses.



NHS

Inhalers, creams and
pain medication can all
contribute to medicines
waste.



NHS

Helping
medicines
only cost
you

magpie.

NHS
North East and
North Cumbria

Use this checklist and help us reduce medicines waste.

1 Have you checked what medicines you have before you re-order?
If you have enough, only request the medicines you need this time. You will still be able to order others again in the future.

2 Do you have a calendar reminder set so you don't order your medicines earlier than you need to?
Adding a reminder to your calendar can stop medicines from beginning to pile up. Write here how long your pharmacy needs to process your order.

3 Do you have any expired and unwanted medicines?
Take these medicines to your pharmacy for safe disposal.

4 Did you order more medicine than you need?
Before leaving the pharmacy check that you only have the medicines you need.

£20 million
is wasted every year on unused medicines across our region.
That's equal to an extra 1,574 knee replacements

Are your medicines working for you?

Keep me where you keep your medicines.



Are your medicines stacking up?
Have you ever thought about ordering extra medicine "just in case"? It's completely normal to feel that way, especially if you're worried about running out of something important. But ordering more than you need, or keeping hold of medicine you don't use (or stockpiling), can actually cause problems. Here is a handy guide to only ordering what you need.

Will I get taken off my medication if I don't reorder it?
No. If you don't reorder a medicine, this does not mean you won't be able to order it next time. If you don't order or collect your medicine for a while, your GP practice or pharmacist may contact you to check if you still need it.

What should I do if I'm worried about the availability of my medicine?
The NHS has systems in place to make sure medicines are shared out fairly and reach people who need them. If you're worried about your medicine, speak to your pharmacist.

What if I run out of my medication and I need it?
Try to order your medicine as soon as possible - your GP practice can tell you how many days in advance you should order before running out. It's important to order in good time. If you do run out, NHS 111 can help with a referral to a local pharmacy for urgent supplies.

That would pay for:

- 535 more nurses
- 476,190 more GP appointments per year
- 1,574 knee replacements

Around £20 million* is wasted every year on unused medicines. This includes inhalers, pain medication and creams.

Help us reduce medicines waste by only ordering what you need. Read on to find out how small changes can make a big difference.

By only ordering what we need we can make sure NHS resources go where they are most needed. Use our checklist overlaid before you order.

Find out more at: reducemedicinewaste.co.uk

Are your medicines working for you?

HERE TO HELP



£20 million
is wasted every year on unused medicines across our region.
That's equal to an extra 1,574 knee replacements

Are your medicines working for you?



£20 million
is wasted every year on unused medicines across our region.
That's equal to an extra 535 nurses.

Are your medicines working for you?

HERE TO HELP



£20 million
is wasted every year on unused medicines across our region.
That's equal to an extra 535 nurses.

Are your medicines working for you?

HERE TO HELP



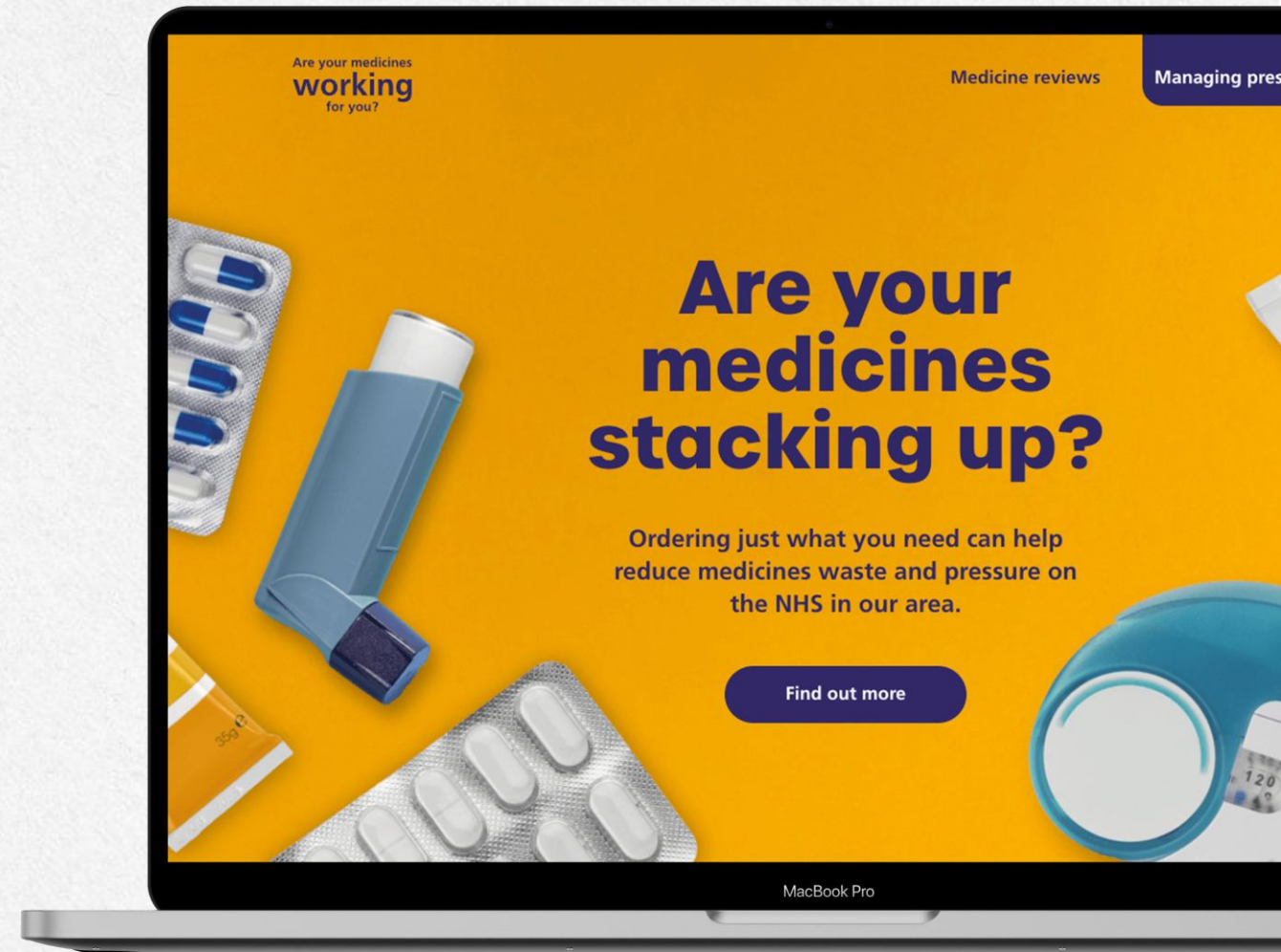
Campaign Activation

Targeted delivery channels

Offline channels: To ensure inclusivity for digitally excluded populations, we utilised:

- local radio
- press advertising
- targeted door-drop (in four pilot areas)

Digital channels: Meta (Facebook, Instagram) was prioritised to reach the core demographic, while Snapchat was piloted to reach younger carers.



04. Evaluating the impact



Key data findings:

Analysis method

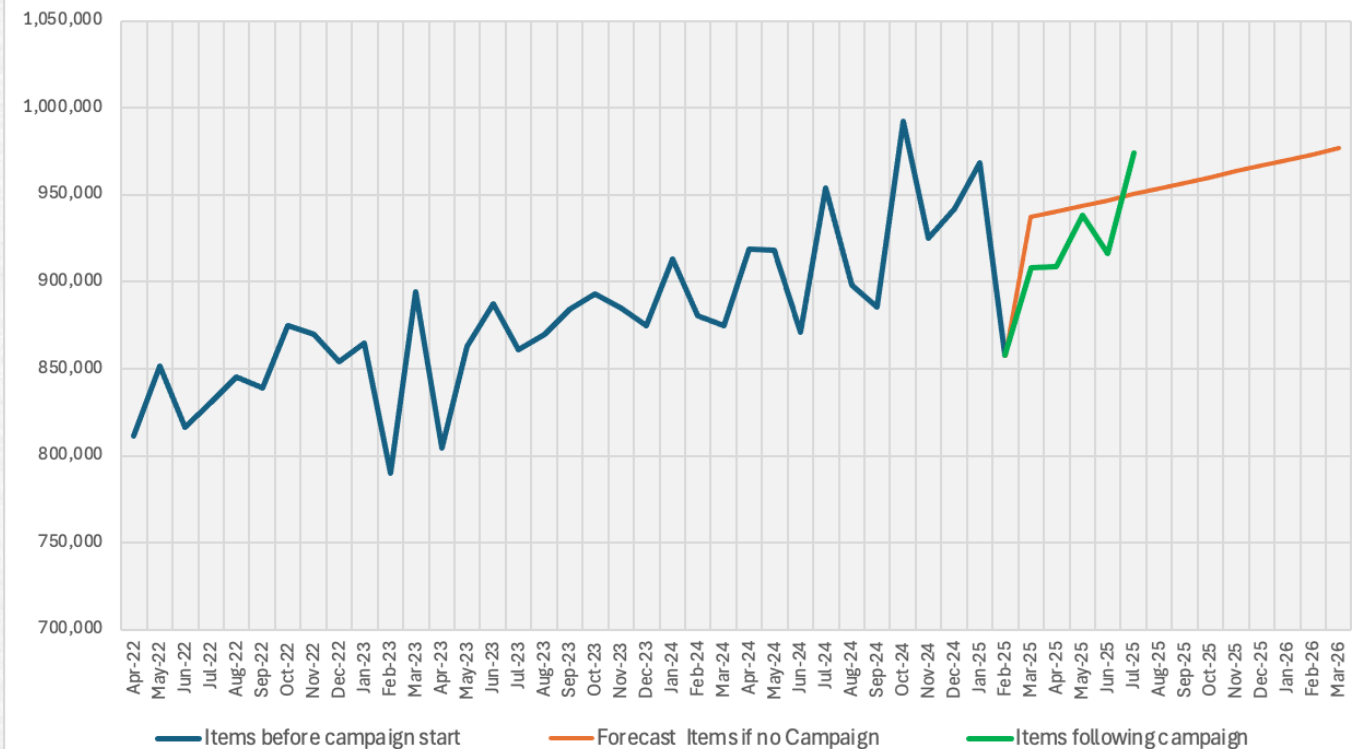
(data provided by NHS NENC ICS)

Data compared: 'March - July 2024' vs. 'March to July 2025'. Prescribing data analysed by individual GP practice, compared to regional & national trends and predictions.

Key findings:

- Though some practices continued to see an increase in prescribing volumes, many started to see a reduction.
- Comparing overall actual prescribing data against predicted values (expected in 2025 in the absence of this campaign). The campaign showed de-accelerated growth, i.e. a slow down in prescribing volumes (as shown by the graph to the right).

Practices involved in the overordering campaign change in Item prescribing
 Actual vs Predicted Values



Impact



46k

Clicks through to the
Are Your Medicines
Working for You
website.



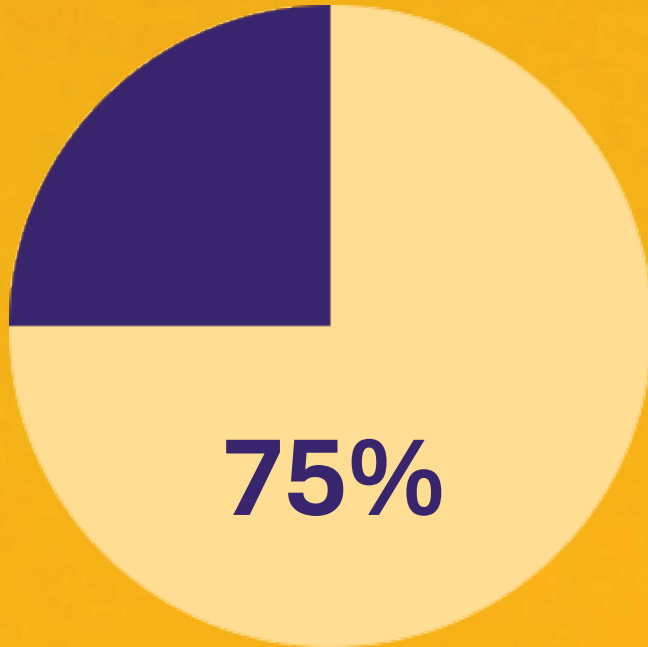
2m

Total impressions of the
adverts, across Meta
and Snapchat.

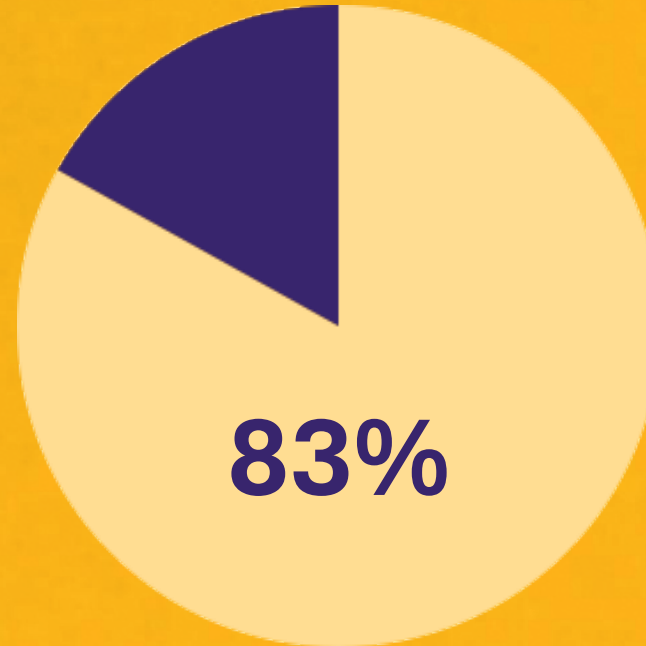


17.5k

Offline reach within
targeted senior-
demographic areas.



Of people surveyed ($n = 205$) agreed that the campaign **increased their understanding of the impact** of overordering or stockpiling medicines.



Of people surveyed agreed that the campaign **increased their understanding of the steps they can take to reduce overordering** medicines.

“I have always been aware of the cost of medicines, but the campaign has emphasised how big this problem is. **I wouldn't have seen myself as part of the problem but my responsibility to check my medicine stocks has hit home.**”

(survey participant quote)

“I cleaned out the medicine cupboard and have loads of unused and outdated medicine to give back to the pharmacy. **I truly didn't realise the impact.”**

(survey participant quote)

“The work we’ve done with Magpie has been **transformational**. Not just in the individual projects and the effects on the population we serve, but on the whole philosophy of medicines use and improving outcomes. Quality healthcare, and **improving outcomes** for patients through medicines optimisation, comes from understanding the people, the communities and the things that drive behaviour. Magpie helped us realise that and gave us the insights to design and deliver our strategic approach.”

Ewan Maule Clinical Director, North East and North Cumbria NHS

Thank you

Lou Hallworth

Lead Campaign Consultant

Christopher Hulme

Business Development Manager

wearemagpie.com

hello@wearemagpie.com



magpie.

Let's create positive
change together

