



NHS England Medicines Optimisation Prototype Dashboard Evaluation Report

April 2015

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2 Executive Summary

The evaluation of the NHS England Medicines Optimisation Dashboard aimed to assess the initial reception to the dashboard by potential users. It sought to elicit stakeholder's input, understand how the dashboard was being used locally, assess any barriers to more widespread use, and to shape future versions of the dashboard.

The evaluation consisted of three online surveys (2 health service surveys aimed at Clinical Commissioning Groups (CCGs), Commissioning Support Units (CSUs), Area Teams (ATs) and Trusts and one aimed at those working in the pharmaceutical industry) and a telephone interview with a subset from the health service sample.

Major findings of the evaluation were that the dashboard was a worthwhile undertaking that brought together a useful array of data in one place, but needed some refinements to really achieve its goals. Some of the refinements highlighted by respondents, and discussed in more detail within the report, are:

- Improvements in the data currentness, accuracy, and uniformity of reporting.
- Improvements in the clarity of the context, rational, and technical information of the dashboard.
- Improvements in the presentation and functional abilities of the dashboard.
- The manageability of using and taking action on the dashboard.
- A honing of the scope of the dashboard to ensure the value and purpose of each indicator, in addition to their relevance to Medicines Optimisation.

Industry responses were quite positive and supportive of future improvements to the dashboard. They especially supported increased NHS England leadership and championing of the dashboard to encourage the spread of the Medicines Optimisation agenda.

The key value of the dashboard proved to be the ability of healthcare organisations to benchmark their performance against other organisations and nationally. This ability highlighted where healthcare organisations were doing well and where they needed to improve and to focus local efforts in order to improve, although in reality this was a rare occurrence. Based on the limited responses received, there was some broad awareness of the dashboard among local healthcare organisations (CCG, Trusts, ATs, etc.). However, use of the dashboard was more limited and while there were examples of the dashboard being used to target changes within organisations, there was a far greater number who were reticent to use the dashboard due to their perception of the age or accuracy of the data and the relevance of the dashboard to their work.

2.1 Key Findings

- The dashboard was welcomed by the majority of users.
- The ability to benchmark performance is a valued and important utility of the dashboard.
- The accuracy, uniformity, and lag of the data raised concerns among users.
- The interface and user-friendliness of the dashboard would benefit from improvement.
- There was consensus that the dashboard should be more explicitly focussed on indicators that relate to Medicines Optimisation and that are shown to improve patient outcomes.
- While the wide scope of the dashboard was appreciated by many, there was some concern that the dashboard was trying to do too much.
- The dashboard would benefit from additional mental health indicators.

- There were questions raised over the ability of CCGs and Trusts to influence their performance on some of the indicators.
- There was some concern that the dashboard was too CCG focussed with not enough indicators focusing on Trusts.
- While there was awareness of the dashboard, its application was limited.
- Improved focus on the implementation and rollout of the dashboard will enhance understanding and awareness and increase the trust and utilisation of the dashboard.

There were some limitations with the evaluation, primarily based upon low numbers in response to individual questions and due to the non-random, self-selected sample that was used which lead us to advise caution when making generalisations about the findings.

3 Background of the Medicines Optimisation Dashboard

The Medicines Optimisation dashboard, developed in collaboration with CCGs, Trusts and the pharmaceutical industry, builds on the principles of Medicines Optimisation agreed by NHS England, The Royal Pharmaceutical Society (RPS), The Association of the British Pharmaceutical Industry (ABPI), The Royal College of Nursing (RCN), The Royal College of General Practitioners (RCGP), and The Academy of Medical Royal Colleges:

“Aim to understand the patient’s experience, evidence based choice of medicines, ensure medicines use is as safe as possible, make Medicines Optimisation part of routine practice.”¹

This work highlighted that “Medicines Optimisation is about ensuring that the right patients get the right choice of medicine, at the right time. By focusing on patients and their experiences, the goal is to help patients to: improve their outcomes; take their medicines correctly; avoid taking unnecessary medicines; reduce wastage of medicines; and improve medicines safety. Ultimately Medicines Optimisation can help encourage patients to take ownership of their treatment.”¹

The Medicines Optimisation Prototype Dashboard (MOD) was designed to “encourage CCGs and Trusts to think more about how well their patients are supported to use medicine.” It is hoped that “CCGs and Trusts can work together to agree how to use the dashboard locally” and that “Local Professional Networks and Academic Health Science Networks will also use this data in collaboration with patients, CCGs, Trusts and the pharmaceutical industry in order to support local improvement.” NHS England CCG Bulletin, June 2014: NHS England launches Medicines Optimisation prototype dashboard.

The MOD is targeted at a broad spectrum of users across the health care community: CCG Clinical Leads, CCG Accountable Officers, CSU Managing Directors, Care Trust CEs, Foundation Trust CEs, NHS England Regional Directors, Directors of Finance, GP Medical Directors, NHS England Regional Directors, AHSNs, LPNs, Pharmaceutical Sector Boards, and Allied Health Professionals.

The prototype dashboard brings together a range of medicines-related quality indicators from across sectors, in one place, in a way never done before.

4 Objectives of the Evaluation

The objectives of this evaluation were to get a first glimpse of the reception of the dashboard by potential users. Specifically NHS England hoped:

- To elicit stakeholders input on the first draft of the dashboard
- To understand how the dashboard is being used locally
- To understand barriers to more widespread use
- To shape future versions of the dashboard

¹ Royal Pharmaceutical Society (2013). Medicines Optimisation: Helping patients to make the most of medicine. Available at: <https://www.rpharms.com/promoting-pharmacy-pdfs/helping-patients-make-the-most-of-their-medicines.pdf> [Accessed: March 2015].

5 Description of the Evaluation Methods

NHS England commissioned the Keele Centre for Medicines Optimisation (KCMO) to complete an evaluation of the Medicines Optimisation Dashboard (MOD). The design and implementation of the evaluation was completed by KCMO with oversight from the NHS Medicines Optimisation Measurement Group.

The evaluation design incorporates mixed methods, consisting of three online surveys (2 health service surveys aimed at CCGs, CSUs, ATs and Trusts and one industry survey) and a telephone interview with a subset from the health service sample. The surveys contain numeric ratings, multiple choice questions, and free-text fields to capture qualitative information. These surveys and interviews were completed between August 2014 and January 2015.

Table 1. Timetable of the Evaluation

Date	Event	Sample
Aug 2014	Health Service Initial Survey emailed out	Health service pharmacy community
Oct 2014	Health Service Detailed Survey emailed out	Health service pharmacy community
Nov 2014	Industry Survey emailed out	Industry Partners
Jan 2015	Health Service telephone interview completed	Subset of health service respondents who shared their contact information

5.1 Surveys

All surveys were implemented through google forms (<http://www.google.co.uk/forms/about/>). An open survey link was included in all the emails to health service recipients and industry recipients.

5.1.1 Health Service Survey

Two Surveys were implemented with the health service group, an initial survey and then a more detailed follow-up survey. An email from the Deputy Chief Pharmaceutical Officer of NHS England was sent to a group from the greater pharmacy community including: the MO measurement group, All England Chief Pharmacists group, the Association of Teaching Hospital Pharmacists, the CEO of Pharmacy Voice, and the NHS Senior Pharmacy leadership team. The email referred the recipient to the dashboard website (<http://www.england.nhs.uk/ourwork/pe/mo-dash/>) and asked for feedback via the online survey. It also requested that the recipient cascade the email to colleagues. In addition, the dashboard and survey were publicised through the NHS England CCG Bulletin.

5.1.1.1 Health Service Initial Survey

In mid-August, the email from the Deputy Chief Pharmaceutical Officer of NHS England announcing the creation of the prototype dashboard was sent out to the health service group. Recipients were given one month to complete the survey following receipt of the email. The survey (see Appendix A) contained questions about awareness and usage of the MOD and participants views of the indicators.

5.1.1.2 Health Service Detailed Survey

In Mid-October a second email again referred the recipient to the dashboard website and asked for feedback via a second, more detailed, online survey (see Appendix B). Recipients were given one month to complete the survey following receipt of the email. This more detailed survey went into depth surrounding the specific ways that the dashboard had been used and shared within their communities. The survey was designed with parallel questions depending upon the recipients' role within the organisation. Appendix C shows a flowchart of how the questions were split. If respondents had not already completed the initial survey,

these questions were repeated in the detailed survey, so a complete set of responses existed for all respondents. Due to the option of anonymity when completing these surveys, there was no way to link the results from the initial survey and the more detailed survey, unless the respondents chose to provide their email addresses, or unless they completed both surveys at the same time as part of the follow-up survey.

5.1.2 Industry Survey

In addition to the surveys sent out to the health service community, a survey for industry stakeholders was implemented (see Appendix D). The survey was sent to a selection of members of The Association of the British Pharmaceutical Industry (Board of Management, Chief Executives, various NHS partnership groups, innovation groups, and regional industry groups) at the end of November and asked recipients about their awareness of the MO concept and dashboard, their use of the dashboard, and the appropriateness and functionality of the dashboard.

5.2 Health Service Telephone Interview

The last piece of the evaluation was the implementation of the telephone interview with a subset of those respondents who completed the health service survey and who agreed to be contacted for further comment. The interview (see Appendix E) aimed to get more in-depth responses to the survey answers, to focus on the key value of the dashboard, to understand the local reception and the contextual issues associated with the dashboard, and to explore some of the ways the dashboard has been used. Of the 30 respondents who provided contact information, we sampled approximately 5 from each region of the country and ensured there was adequate representation of CCGs and Trusts. As a result emails were sent out to a sample of 20 respondents within all 4 regions.

5.3 Qualitative Analysis

There was a large amount of free-text generated by the evaluation from open ended questions in the surveys and from the interviews with health service respondents. The technique used to analyse this data, thematic analysis, is widely used in qualitative research.

Generally, qualitative analysis is completed through inductive processes - moving from specific observations to broader generalisations and concepts. This is also known as a "bottom up" approach. The most common qualitative analytic technique is thematic analysis. Thematic analysis involves:

- Viewing the data several times as a whole (reading and re-reading the transcripts).
- Identifying patterns and themes (finding common statements or concepts that appear repeatedly).
- Reorganizing the data (coding the data according to the themes identified).

This reorganised data are then pulled together to create a coherent representation of the themes within the text.

6 Evaluation Findings

6.1 Health Service Survey Findings

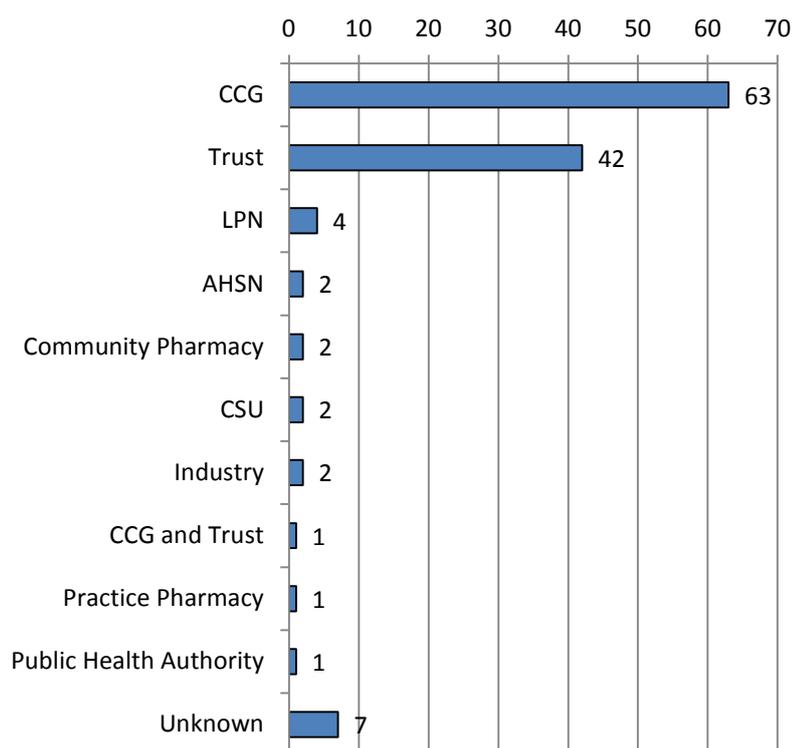
6.1.1 About the Participants

A total of 127 survey responses were received for the initial survey (82 from the first survey collection and an additional 45 were collected as part of the second survey wave). Responses came from all four NHS regions with fewer respondents from London than other regions. In addition, 95 responses were received on the second survey.

Table 2. Region of Initial Survey Respondents

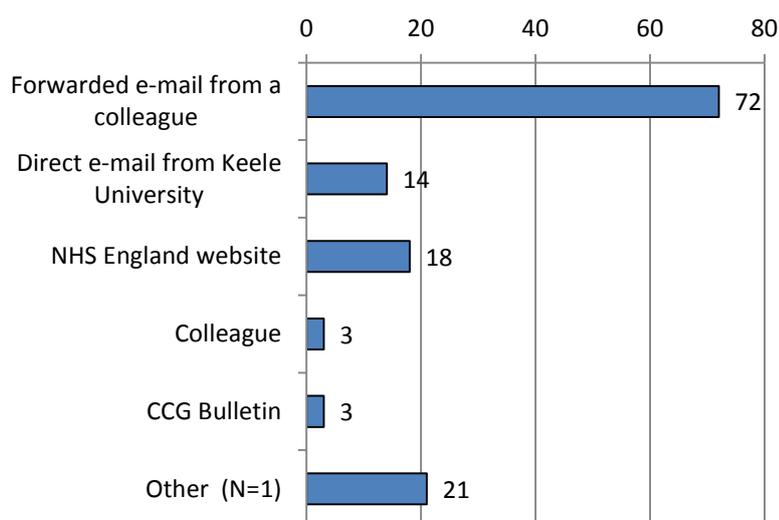
NHS Region	n	Percent
North of England	38	30%
South of England	37	29%
Midlands and East of England	33	26%
London	19	15%

Chart 1: Employment Setting of Respondents



The majority of respondents were based in CCGs (50%, n=63) and hospital trusts (33%, n=42) with additional respondents from Local Professional Networks, Academic Health Science Networks, community pharmacies, and Commissioning Support Units. Thirty six percent (n=46) of respondents were CCG Medicines Optimisation Leads, 23% (n=29) were Trust Chief Pharmacists.

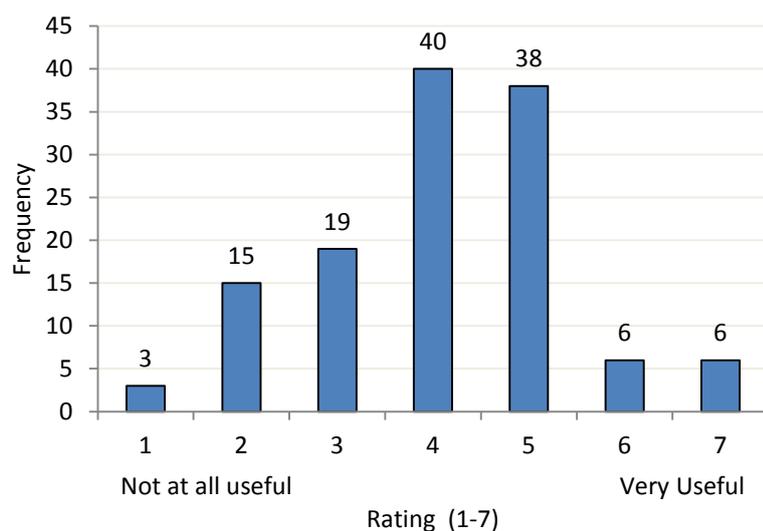
Chart 2. Where You Heard about this Questionnaire



When asked about how they heard about the MOD questionnaire, the majority of respondents (57%, n=72) heard about it via an email forwarded by a colleague, with a further 14% (n=18) hearing from the NHS England website, and a further 11% (n=14) directly in an email from Keele. This indicates that networking among colleagues remains an important way of disseminating information and engaging stakeholders.

6.1.2 Evaluation of the MOD

Chart 3. Rating of Overall Usefulness of the Dashboard



When asked to rate the overall usefulness of the dashboard the majority of respondents (61%, n=78) rated it as either a 4 or 5 on a scale of 1 = "Not at all Useful" and 7 = "Very Useful". The mean rating was 4.1. There was also a full spread of responses indicating that the reaction to the MOD was quite varied. When compared by organisation, the usefulness was rated as marginally higher by CCGs compared with Trusts (mean of 4.1 for CCGs compared with 3.8 for Trusts).

Respondents were also asked if 'the implications of the MOD content had been considered by some kind of governing body,' although the wording varied slightly depending on the respondents' role. Over half, 58%, responded "yes" (55 of the 95 who answered the question). It is notable that CCG Medicines Optimisation Leads responded positively to this question at a much higher rate than Trust Chief Pharmacists (78% versus 37%), indicating that the MOD was more widely shared within CCGs than in Trusts. This aligns with feedback from the interviews and surveys that Trusts felt the MOD was primarily a CCG tool and therefore not worth sharing with their busy colleagues.

Chart 4. CCG MO Lead:
Will/Has the MOD been considered by CCG Senior Leadership Team or governing body, or a group that reports to such a body, or one your own team (n=31)

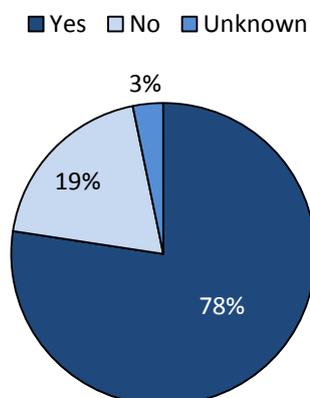
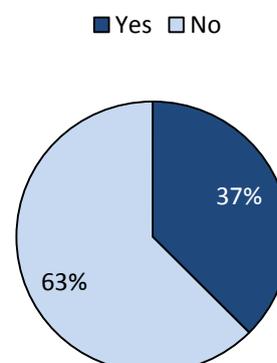
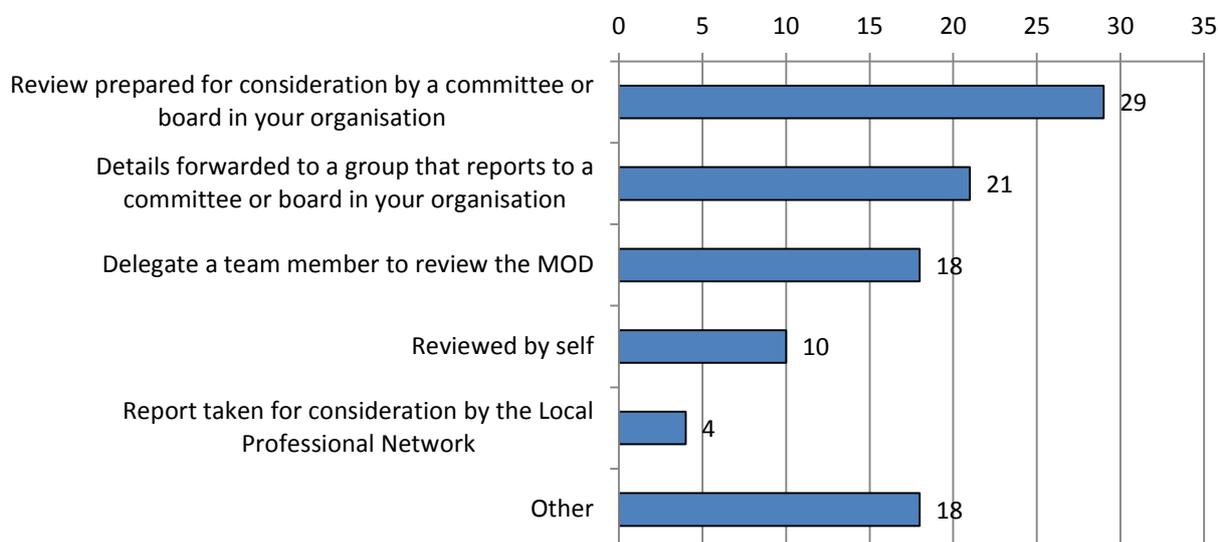


Chart 5. Trust Chief Pharmacist:
Will/Has the MOD been considered by Decision making group or governing body (n=24)



When asked about their initial actions regarding the MOD responses ranged from personal review of the dashboard to sharing with or presenting to a committee or board. Most commonly, respondents took steps to share the dashboard, either with committees or boards (39% of all respondents, n=50) or with their LPN (3%, n=4) or they delegated the task of reviewing it to a colleague (14%, n=18).

Chart 6. What were your initial (one or more) action(s) regarding the MOD?

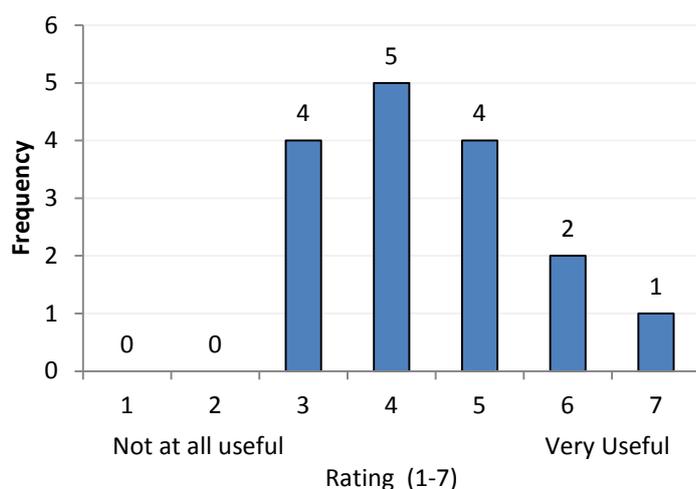


6.1.3 CCG Medicines Optimisation Lead Questions

The 31 CCG-MO leads who responded to the survey were asked several more in-depth questions relating to the MOD and their role.

Fifty two percent of CCG Medicines Optimisation Leads indicated that they used the summary page when sharing the MOD within their organisation.

Chart 7. How useful was the summary page in sharing the MOD within your organisation?



Respondents who shared the MOD summary page within their CCG were asked how useful the summary page had been. Three quarters of respondents rated the usefulness of the summary page as a 4 or better (with a mean score of 4.44).

Supporting Work with Local Healthcare Organisations or Partners

CCG MO Leads were also asked “Have you used the MOD to support dialogue with other local healthcare organisations or partners?” One third of MO Leads answered “yes” and were then asked about the usefulness of the MOD in supporting dialogue with other local healthcare organisations and partners. Responses here were less positive, with all respondents rating the usefulness as 4 or lower on a seven point scale with a mean of 3.6. Additionally, only two of the total 31 CCG-MO leads indicated that they had shared the dashboard with any GP practices.

Chart 8. How useful has the MOD been in supporting dialogue with other healthcare organisations?

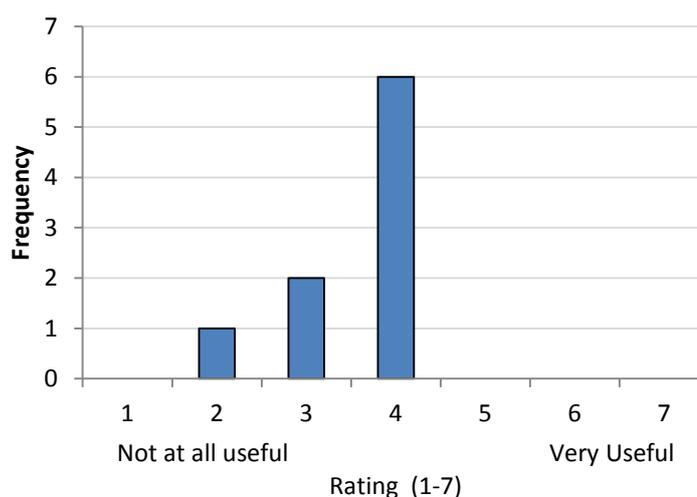
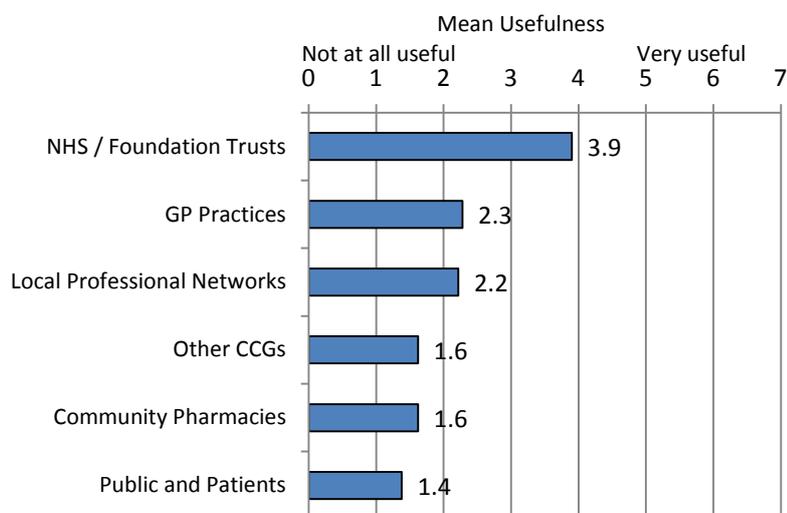


Chart 9. How useful has the MOD been in supporting work with the partners listed below?



Responses showed that the usefulness of the dashboard in working with partners varied by the partner. CCG-MOD Leads rated the dashboard as most useful when working with Trusts, and less so with GP practices, LPNs, other CCGs, and community pharmacies, and least of all with the public and patients. These results must be interpreted with caution given the very low numbers that this data is based upon (n=9).

Supporting Work with External Organisations

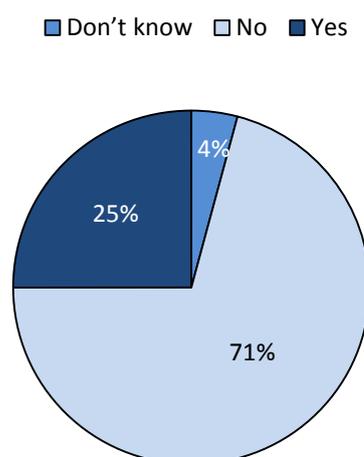
CCG MO leads were asked if the MOD had been used when working with pharmaceutical companies, or if there had been any media coverage of the dashboard. All respondents answered either “no” or “don’t know” to these questions. Interestingly, the majority of those who participated in the industry survey indicated that they did engage CCGs on issues surrounding Medicines Optimisation and that they believe the MOD could support dialogue with partners regarding Medicines Optimisation.

6.1.4 Trust Chief Pharmacist Questions

Trust Chief Pharmacists (n=29) were asked one additional question, “Does your Trust supply data on medicines reconciliation to the NHS Safety Thermometer?”

Only 25% of Chief Pharmacists indicated that their trust provided medicines reconciliation data to the NHS Safety Thermometer. This has implications for the Medicine Reconciliation indicator on the MOD as it relies on data from the NHS Safety Thermometer. This raises a concern that there may be large amounts of missing data for this measure.

Chart 10. Does your Trust supply data on medicines reconciliation to the NHS Safety Thermometer?



6.2 Health Service Interview Findings

Twenty participants were contacted to participate in the telephone interview portion of the evaluation and a total of 13 completed the interview (65% response rate). Seven respondents were from CCGs, 3 from Trusts, and one each from an Area Team, an Academic Health Science Network, and a community pharmacy. There was representation from each of the four NHS England regions.

6.3 Health Service Qualitative Findings

Thematic analysis of the surveys and interviews revealed several themes regarding the development, organisation, content, and uses of the dashboard. Themes from both interviews and online survey are presented together. Selected quotes are presented to highlight the themes and each is attributed to the employment setting of the respondent: CCG, Trust, AHSN (Academic Health Science Network), AT (Area Team), CP (Community Pharmacy), or PP (Practice Pharmacy).

6.3.1 Data Soundness

The most commonly raised concern was the issue of data soundness and quality. These comments fall under the following categories:

Age or lag of the data: Data were frequently highlighted as being too old to be useful and too old to be able to verify its accuracy. Out-of-date data were generally deemed as not being useful on the basis that it reflects an outdated situation. The age of the data also made it difficult for users of the MOD to “sell” the dashboard to their colleagues or to encourage its wider use. There was a reluctance to even take the dashboard to decision making or practice groups due to the age of the data.

Incomplete or unstandardised reporting of data: Incomplete data raised questions regarding the uniformity of data reporting and the need for standardisation of data collection/reporting techniques. It highlighted issues of inconsistencies in reporting of data, for example, not all Trusts use PINCER and therefore performance on this measure varies widely and is not a valid representation of the prevention of medication errors. Also, different locations appear to use different reporting standards when reporting some of the patient safety indicators. Access to or use of the Summary Care Record is also not universal and so leads to misleading data. Additionally, the medicines reconciliation indicator relies on data from the NHS safety thermometer which does not receive data from all trusts resulting in missing data.

“We looked it up and I think most mental health trusts were missing medicines incident data. We all submit it to national learning systems, so why isn’t it there? So there was a bit of scepticism about the quality of how this data was drawn together for this pilot” (Trust & CCG).

Data validity and accuracy: Several participants indicated their belief that the data were not accurate and did not align with their knowledge of their own systems and performance. A few respondents, however, saw this process of questioning the data as healthy. The ability to benchmark data for the first time, on several of the measures, has triggered some healthcare organisations to begin to look at their data, ask questions about it and verify their data procedures in order to confirm that the data are accurate. This is frequently a vital first step to verify and tighten-up data procedures which then enable organisations to be able to move forward and begin to look at the quality of their service as demonstrated by their data.

“What it did do was it made us ask questions of the data and made us ask questions of why the data may be skewed and what the potential factors were that would influence the data that we knew, from what was happening in local systems. We had a good – it precipitated a good debate” (AT).

“Right, so what we’ve tried to do is we’ve tried to engage with our CCG colleagues to use the dashboard as a means of identifying potential priorities for work. The challenge has been that for the principle of the dashboard, they are happy with and there are elements of it which are useful; I’m sure we’ll come on to those later but in order to have a conversation with them, they’ve looked at the data that is currently presented for local information, local data within the dashboard and their attention is immediately drawn to that data. They’re saying that data is not correct. ‘We don’t feel that data is correct’ and therefore, it’s difficult to then engage them in a conversation with the tool because they don’t have the confidence that the data on which the discussion is based is accurate” (AT).

Respondents also highlighted issues surrounding the construct validity of the indicators - the degree to which the indicators measure what they claim to be measuring. Some respondents didn’t feel that enough consideration had been given to some measures to ensure they were valid. For example the PINCER indicator was identified as not being a valid representation of a CCGs attempts “to identify at risk patients who are being prescribed drugs that are commonly and consistently associated with medication errors” (MOD Supplemental Information, NHS England) as other tools exist and are widely used that perform this same task. In addition, just accessing the PINCER tool is not an indication that patients are being appropriately identified or that any corrective action is taken.

6.3.2 Context and Clarity

Respondents highlighted the need for greater contextualisation surrounding the measures, including: its development, who the contributors were, why each measure was chosen, and what was the purpose of each measure and the dashboard. This was despite 76% of interviewees indicating that they had read the supplemental information on the website. Respondents also wanted to know the rationale behind how each of the measures related to quality of service.

They also indicated that greater clarity surrounding the technical side of the measure would improve understanding of the data and better enable them to verify its accuracy.

Questions were also raised over what performance on a particular indicator meant, what was the direction of effect, what is the gold standard, what are the implications, and how do people assess their success? Some respondents also felt the need for local contextualisation of the numbers (local conditions and idiosyncrasies) to show why performance was comparatively high or low or why there may be missing data.

“I think my issue with it is what does that number in isolation mean and so each of those numbers or percentages, or whatever it is, in isolation doesn’t have a meaning without having the background local knowledge. [P]rescribing data can be read and interpreted in lots of different ways and unless you put an interpretation with it and you have an understanding of what local information there is behind it, then it’s just a number.... I’ve no problem with making this information public but if we’re challenged on it, we know the other backgrounds and why we might be high or low or whatever. Sometimes, it might be that they’ve got a different policy..... It’s just that you can’t see it because you’re only looking at one part of the picture. That’s my main concern is when you only look at part of the picture, you don’t necessarily – you’re making a judgement on something without knowing the background” (CCG).

6.3.3 Benchmarking

Benchmarking is an improvement process that helps healthcare organisations understand how they perform in comparison to other organisations. Recipients frequently commented on the value of the ability to measure how their organisation is performing and specifically how it performs against other similar organisations. Benchmarking allowed them to begin to understand differences in their processes that might result in variation in their performance.

“I think it’s helpful to highlight where we might be significantly better or worse than our neighbours, so it gives areas to focus on” (CCG).

“[T]here has to be some kind of core standard or some way of comparing whether people are actually getting access to the same level of healthcare in different parts of the country. So you need a dashboard to provide assurance, assurance that people are getting appropriate access to treatment, very significant treatments like medicines, or that if they are not, that it points at the fact that some remedial work needs to be done” (AHSN).

“I think it’s really good to start comparing organisations, and have something objective for people to look at. It just helps to raise the bar in terms of everything to do with Medicines Optimisation because people, especially in relation to medicines in the NHS, are really bad at collecting quality metrics routinely” (CCG & Trust).

“I think it’s useful to be able to do comparisons with other CCGs in our part of the world, and potentially other CCGs that are comparable but maybe in different parts of the country. With the way the NHS restructuring has gone, we no longer do a great deal of that at area team level or nationally” (CCG).

“It’s useful to have a way of easily seeing national comparators or England’s comparators and being able to measure how we benchmark against other organisations. The bringing together of different pieces of information is the new bit. Technically, all of the information was available to us before but we wouldn’t necessarily have looked at it in quite the same way though. We benchmark anyway and benchmark against ourselves nationally but it’s quite useful seeing them all as a whole” (CCG).

“It is about having something external that raises the bar. If you’re less than fabulous on the Medicines Optimisations Dashboard, I’m sure something is going to happen and you’ll definitely have something changed in the organisation to make you fabulous” (CCG & Trust).

6.3.4 Stratification and Drill Down

Respondents highlighted the need for different levels of stratification, either at the CCG level, Trust level, or Area Team level. To enable them to understand the patterns in the data, stratification at the operational level was identified as important. Having data which reflects the level that policies and practice are implemented at means that the data are more pertinent to the practice of organisations. Those that were reported at the area team level were thought not to provide specific enough information to be of use to the CCGs. While others argued that the data were not useful to them unless it was presented at the practice level. The level of requested stratification was for the most part reflective of the worksite of the respondents (CCG, Trust, AT etc.).

Stratification by specific characteristics was also highlighted as important in the course of benchmarking because being able to select comparison healthcare organisations of similar sizes and/or characteristics makes these comparisons more meaningful.

6.3.5 Ability to Effect Change and Influence Performance

While most respondents agreed that measuring their practices and outcomes was desirable, several respondents questioned their ability to impact change on the measures. This arose most frequently when a particular process captured by the measure occurred outside of their organisation or outcomes captured by the measure are influenced by other extraneous factors.

“EPS [Electronic Prescription Service] for a CCG is largely out of our control, that’s largely organised by CSUs and again there are barriers there for uptake of that. So again that’s not one that we could influence to such a degree. Likewise repeat dispensing things are on there. MURs [Medicines Use Reviews] from community pharmacists are again not something that we can’t really influence” (CCG).

“There are some things on here which I think are useful and there are things on here which are quite harsh. I mean things like MURs; it would be very difficult for us as a CCG to feel responsible for how many pharmacies are doing MURs because we don’t have any contracting power over them” (CCG).

“[T]hey need to be things you can meaningfully influence though commissioning” (CCG).

“From a CCG level I think it would be good if you actually had some indicators in there using data around things that we can directly influence. You could look at what’s happening within diabetes. How good are we doing at monitoring and controlling hypertension and diabetes compared to everybody else? [How] are we at getting patients on beta blockers in heart failure compared to everybody else? Diabetes and heart failure are really the areas for us and things that we can directly influence” (CCG)

6.3.6 Scope of the Dashboard

Respondents were generally very positive about the scope of the dashboard, indicating that the broad “health economy” approach was helpful, bringing together many existing and new indicators to one place where they could compare across healthcare organisations.

There were questions raised over who the dashboard was targeted at and how this might impact the choice of measures. Secondary care felt there were too few hospital measures, community pharmacists felt the same way about community pharmacy measures and the lack of measures that related to mental health or mental health practice considerations was also highlighted.

Conversely, some respondents felt that the dashboard tried to do too much and recommended reducing, refining, and focussing the measures to be more closely related to Medicines Optimisation.

“I think everybody, sadly, saw it as CCG focused. It wasn’t focused enough on the whole economy” (Trust).

“[A]s a concept to attempt to move medicines management related information beyond simply prescribing data to link it to other more quality-based indicators available at a national level is very useful to sort of help us with national indicators broaden the scope of our focus and support us to do this beyond simply just prescribing”(CCG).

“Current dashboard is very ‘primary care’ focussed - would it be more equitable to include a comparable number of indicators for Pharmacy Contact, GP contact, CCGs and secondary care?” (Trust).

6.3.7 Manageability

Some respondents raised concern about the time demands and expectations that the dashboard might place on already overburdened staff. They described an abundance of dashboard-like tools used by different entities that frequently measure very similar concepts. They also described the growing number of reporting requirements being placed on them and their staff. The complexity of several of the measures and the high level of knowledge required to be able to interpret the data also places a time burden on staff. Several respondents indicated that they thought there were too many indicators to be able to target improvements and that a smaller more refined group of measures that are more closely linked to the Medicines Optimisation agenda would be desirable.

"I think I understand it well enough in order to be able to say yes we can look at it. [But] I'm dreading it, I'm just thinking, you know, how busy I am and just thinking how do I find the time to do it" (Trust).

"I personally feel we should be trying to find 10 maybe, 10, 15, maybe 20 indicators that says we've got it right rather than hundreds, well, all I can say is that some of them I've seen have got hundreds of them in. And I'm thinking we're busy people and we are really struggling at times just to keep on top of the day job, then if you've got to go and get indicators and evidence to support an extensive dashboard it will make it almost, well I'm just going to pick an answer - rather than actually I want to do this properly because I really want to understand what's right and what's wrong" (Trust).

"Oh no, not another we've got to do, and I think one of the other things is I can actually see the sense of it in some respects but I think the fear is that with some of these things you get the dashboard coming in and then we'll get the medication safety thermometer and then we'll get something else. And you sometimes think: where is the joined up thinking? And some documents that we've been dealing with recently we've answered the same question but subtly different from different surveys. And so you kind of think just have one please" (Trust).

"My fear is I'd end up with this massive action plan that I'd never be in a position to be able to implement" (Trust).

"GPs have a notoriously short level of attention. I think also you're possibly covering too many bases with it. Having stuff in there like community pharmacy measures and the medicines service in with quick prescribing stuff and QOF stuff; I think perhaps you need to think who you're targeting it at. Maybe even do different versions. Do like a QOF version, a medicines management version and one around community pharmacists. GPs aren't going to be interested in community pharmacist stuff if you're trying to get GPs to buy into this" (CCG).

"What kind of incentives and levers need to be in place for people to use it. So I think again, people are very busy in the NHS; they've got a lot on. Increasingly unless somebody says that you have to do it, either because it's a rule or there's a payment attached to it or whatever it might be, people don't have the wherewithal to do things which they are not required absolutely to do" (AHSN).

"Not sure of the real use of this. Have concerns that it will be a performance management tool" (CCG).

6.3.8 Link to Medicines Optimisation Agenda

Respondents felt that not all of the measures were relevant to the Medicines Optimisation agenda. Several respondents felt there was too much focus on the safety elements and not enough on the other three

principles: understanding patient experience, evidence-based choice of medicines, and making MO routine practice. It was suggested that more thought and consideration should be given to indicators that are a more valid representation of these principles, and specific alignment with the Baseline Assessment Tool for Medicines Optimisation (NICE medicines practice guideline NG5).

[Recommends] “[a] focus on Evidenced Based Choice of Medicines within the 2nd principle of optimisation” (Trust).

“Some of the indicators have no value in delivering Medicines Optimisation, they are process measures that may not impact on effective use of medicines by patients. The indicators of particular concern are those that are self-reported” (CCG).

6.3.9 Stakeholder Engagement

There was general support for the continued engagement of stakeholders in the ongoing development and implementation of the dashboard. Engagement of the users of the dashboard was seen as important in making the tool as useful as possible and vital in terms of maximising the reach and use of the dashboard.

“I mean, this is the problem; you can't win in these situations because if you launch something and people don't feel they've had a chance to debate it, they say ‘well, I didn't get a chance to talk about this, I'm not sure I agree with it’. But if you launch something that's not really well thought through or not designed to a sort of fairly high level of development, then people say ‘Oh well, you've not done anything, you've not done the homework, you've not created something that we can respond to’. So I think probably in my opinion, what's needed is a period where people can experiment with it and see what it does and work out whether it's the right thing for them or not. But I think what we have to do is we have to say, the question is not whether we want it or not; the question is how we optimise it. Making it go away is not an option. It's important that even allowing for the fact that there are difficulties, methodological, clinical, scientific around it, the right thing to do is to address those issues. The wrong thing to do is say well, they're all too hard, let's do something different” (AHSN).

“As a general principle, we welcome the inclusive and developmental approach that is being taken here and would suggest that the greatest benefit would accrue from identifying, developing and refining this indicator set to its logical end, so that all foreseeable data collection and interpretation issues have been worked through and a working model results” (AHSN).

“[T]here were things like this has been shoved out, this has been foisted upon us, we didn't know about it, we're not sure we support it, with some of the assumptions underlying the model might be wrong, when do I get to discuss that. Where do we take our comments to? Who do we talk to about it?” (AHSN).

6.3.10 Temporal Tracking

The ability to track improvement or change across time was highlighted by many respondents as an important feature of future dashboards. They underlined the importance of being able to track progress, especially when action had been taken to address performance on specific indicators.

“I think if we're having more timely and more regular dashboards so that people can see progression because one of the issues with the current dashboard is it was a snapshot of a distant period of time ago and so whenever you used the dashboard – the dashboard is less useful for CCGs than it could be” (CP).

“I think it was telling the fact that the data was so old and, as we know, to get quality and system improvement we need timely access to up-to-date information at a frequency that enables us to be able to track, encourage and do something about things when progress hasn’t been made” (CP).

“You can use it in a serial way, so that you can see what your performance is ongoing and to see that you may have achieved a high level on one occasion but are you maintaining and sustaining that?” (Trust).

6.3.11 Has the Dashboard Created any Local Change?

There are numerous examples where the data in the dashboard highlighted something unexpected, confirmed something suspected, or caused the users to bring issues to a larger group. Not all of these discussions led to change in their organisations, however there are several examples where being able to view the data and compare themselves with other healthcare organisations led to local change.

“One of the indicators you’ve got in there at the moment is epilepsy, which we actually did do something with. It showed that our performance was below the other CCGs in [the region], and since you’re all meant to give the same level of service from the provider we have used this to challenge what the provider set does We did actually discuss that at our commissioning executive, to query why our performance was the worst of the local CCGs that all commission the same sort of service from [location]. We’ve not been happy with our epilepsy service for a while, but that data actually proved to be quite useful to take the discussion forward” (CCG).

“It hasn’t resulted in a great organisational change but it has certainly focused our minds” (CP).

“Well, there were a couple of areas where it looked like there was room for improvement I think around epilepsy. Epilepsy: they felt it was quite a specialist area and so we considered what could we maybe do to improve seizure-free periods..... I think the only thing people thought there might be an issue around maybe compliance and the GPs could have a role in terms of talking to patients about whether they’re managing their medicines, whether they are having problems with them, and equally so pharmacists as community pharmacists as well. So actually epilepsy [was an] area where we have a prescribing incentive scheme and we’re just at the moment agreeing what will be in it for next year and it’s on a long list of potential areas that we might focus on for next year” (CCG).

“We’re setting up, we’ve got four big work streams around safety, and one of them is about medicine optimisation, and really it was being discussed in that forum with the idea of kind of taking a position on how we use it and how we support it and how we promote it, and we are just doing some work at the moment about learning packages for staff around those four priorities and one of them is about what is the role of Dashboards and how do you encourage people, incentivise them to use them” (AHSN).

6.3.12 Indicators Suggested for Removal

As part of the survey, respondents were asked to suggest indicators for removal or addition. Several indicators were highlighted that respondents did not believe were helpful.

NOACs (NICE approved medicines): Overwhelmingly the response to this question was to remove the “NOAC indicator” from the dashboard. The use of the NOAC indicator was by far the most frequent comment in both the surveys and the interviews. Concerns were raised that it only focuses on one type of anticoagulant rather than all anticoagulants or ensuring that AF patients were anticoagulated. The QOF indicator was seen as a better choice as it includes all anticoagulants. There was also an indication that the respondents felt that

the inclusion of the NOAC indicator was politically motivated. Concerns were also raised about the cost implications of NOAC use.

“NOACs indicator is a bit puzzling; why uptake on NOACs in particular? Surely the indicator should look at patient with AF who are being anticoagulated i.e. it should include ALL options of anticoagulation” (CCG).

“Serves little purpose and seems to be there only to appease the pharmaceutical industry” (CCG).

“NOACs-needs to be focussed on patient outcomes rather than drugs being used.” (CCG).

“Proportion of patients on AF register receiving an anticoagulant is more appropriate.” (CCG).

“We believe the NOAC indicator to be flawed as it appears to exclude warfarin as an option for anticoagulation, which is clearly contrary to the NICE care guidelines for Management of AF. A revised indicator such as “% of patients on the AF register with a CHADS2VASc score of 2 or more taking warfarin or a NOAC” would be better” (CCG).

“New [indicator] on NOAC uptake presents challenges because of cost.” (CCG).

“For the anticoagulation indicator for AF the CHADS2 score needs to be replaced with CHA2DS2VASc score going forward. The indicators for percentage of apixaban, rivaroxaban, dabigatran prescribed as a percentage of warfarin might also need to be adjusted so that it encourages clinicians to prescribe the NOACs for patients who are likely to be difficult to treat with warfarin, e.g. due to co-morbidities or polypharmacy or compliance issues.”(Trust).

“Uptake of NOACs - this may not reflect safe practice. In my area, GP do not initiate OACs, so they have become deskilled. Our approach has focussed on safety over anything else.” (PP).

PINCER: The inclusion of the PINCER indicator was questioned primarily as alternative audit software is in use across England, for example *Eclipse Live*. This means that a zero on this indicator may denote that the organisation has not been assessing possible medication errors using PINCER or that they are using alternative software to complete this task. Respondents also felt that this measure did not specify how PINCER was then being used and if this translated into any action, or in turn impacted patient outcomes.

“Other than drawing attention to the availability of the PINCER tool, table 1 tells us very little. Downloading it does not indicate that it has been used or that any action has been taken. Other tools for reviewing medication safety are also available on some clinical systems, but usage is not captured in the dashboard” (CCG).

“Not everyone has the PINCER tool accessible so why include it” (CCG).

“In our CCG we do not use PRIMIS and hence do not have access to PINCER. We use EMIS Web to perform searches and are investigating using different systems for risk stratification” (CCG).

“PINCER software: I think this needs to be re-assessed. There are a lot of software programmes out there now. Perhaps NHS England could approve 4/5 different systems” (CCG).

“The indicator is not robust [enough] to indicate anything other than the number of practices that have access to the software” (Trust).

QOF: The inclusion of The Quality and Outcomes Framework was questioned by several respondents. Respondents felt that they had little relevance to Medicines Optimisation. Others were only happy with inclusion if the indicators were linked to prescribing, and others still felt it was important to include some consideration of exception-reporting. There was also an indication that respondents felt that this data was too old to be useful on the dashboard. Lastly, people felt it was duplicative to include indicators from a well-established tool already in use elsewhere.

“There is no information to show that these indicators relate in a significant way to use of medicines, the whole indicator is based on an assumption that is probably not true as it does not take account of confounding (including exceptions) and the whole concept of using an indicator designed for one purpose for a completely different purpose is extremely bad statistics” (CCG).

“The QOF indicators chosen seem reasonable and represent a good spread of disease states. However, the main issue with using purely QOF data is the ability for large numbers of patients to be exception reported within QOF. It may well be worth pulling out the level of exception reports for the same parameters. Certainly the one looking at AF is a concern as the level of exception reporting is very high. By its very nature, exception reporting should be low. Where it is high this may be a cause for concern due to inappropriate reporting and this should be flagged up to allow further investigation my local teams” (Trust).

Additional indicators suggested for removal: Below are indicators that were mentioned infrequently by respondents:

- MURs (Medicine Use reviews)
- QIPP – NSAIDS
- Medication safety in the hospital setting (NRLS)
- Community Pharmacy Indicators
- Indicators based upon services not commissioned by CCGs

6.3.13 Indicators Suggested for Addition

Respondents highlighted several indicator areas that they felt would be helpful for future iterations of the dashboard.

Mental Health Indicators: The major feedback on mental health indicators was that there were not enough of them. Respondents felt that the single QOF indicator was not sufficient and did not provide enough information to offer any type of meaningful benchmarking. According to one respondent, there was widespread support for the dashboard from the College of Mental Health Pharmacy and internal groups within their Mental Health Trust, however, they indicated that data was very limited. In another region, it was very widely shared within the mental health community; however this did not result in any further action due to the lack of indicators. In addition, Mental Health Trusts felt that straightforward comparisons with other trusts did not reflect the different standards and procedures Mental Health Trusts work under. Recommended indicators were as follows:

- Antidepressant use per capita
- Use of antipsychotics within dementia
- Physical health indicators in people with severe mental illness or on antipsychotics
- Percent of patients on two or more antipsychotics
- Mental health medication incidents

“It has been widely welcomed by my professional peers in the College of Mental Health Pharmacy. It was been welcomed by committees in my own organisation, by the serious incident group, drug and therapeutics committee and the safe medication practice committee. The comments have been that the data related to mental health is very limited” (CCG & Trust).

“In terms of parity of esteem in mental health it’s just not there at all. There is hardly anything about mental health, learning disabilities, child and adolescence. There are very little specialisms represented to improve equality as a whole. It’s mainly the top hitters in physical health, which is good and they’ve got a priority, but there is a whole raft of health metrics and services that are just not even represented on there”(CCG & Trust).

“I have asked the College of Mental Health Pharmacy for comments about the Medicines Optimisation dashboard, and I’ve asked [region] NHS trusts and the CCGs for comments about mental health as well. I think the overriding comment was, ‘Well there’s nothing in there for us.’ So there needs to be more quality metrics about mental health. There are loads of things that we could do. Mental health is always the Cinderella service of the NHS and mental health medicines is part of that Cinderella service” (CCG & Trust).

“Mental health medicines safety indicators are very different to physical health. A major safety challenge in mental health is ensuring that all baseline physical health parameters are completed before initiation and that on-going physical health is monitored. Given that there is a wide health gap between those with SMI [serious mental illness] and the general population and the medicines we use worsen this; an important safety parameter in mental health is thus the percent attainment of the required physical health monitoring at base line and yearly. Other useful parameters for mental health to monitor would be the percent of patients with incidents related to high risk or critical medicines in the organisation. This would be a ‘quick and dirty’ way of assessing the organisation on how well they manage these medicines. A range of prescribing indicators should be work towards (aspirational for some organisations, not for mine!) e.g. percent patients prescribed two or more antipsychotics, percent of patients prescribed an antipsychotic for dementia, percent patients with lithium level in the past 3 months” (CCG & Trust).

“The medicines reconciliation for trusts has a requirement to report against % reconciled in 24hrs following admission. I am aware that some Mental Health trusts have local policies that look at an extended period (e.g. 72hrs). This is due to the differences in their service provision and that some trusts do not provide routine weekend pharmacy services. Also some admission routes in to mental health services differ considerably to those in acute trusts e.g. forensic services. I am unsure what value a count of number of medicines incidents recorded gives and agree that looking at harm is one of the keys to this indicator” (Trust).

Outcome Focussed Indicators: Several respondents raised the issue a lack of outcome measures with indicators being more focussed on the processes involved in the delivery of healthcare services. For example “viewing a summary care record”, “accessing PINCER”, “conducting NMS” instead of what it means in terms of results, for example, improved adherence, improved morbidity, or quality of life. One of the central goals of the NHS is to improve outcomes for patients, not just improve services,² however, despite this there are several benefits of assessing the process of care. Process indicators can be closely aligned with evidence-based care and can reflect the actual care patients are receiving. They are frequently easy to interpret and are often easily actionable which makes them desirable for quality improvement or performance

² NHS England (2013). Putting Patients First: the NHS England business plan for 2013/14 - 2015/16. Available at: <http://www.england.nhs.uk/wp-content/uploads/2013/04/ppf-1314-1516.pdf> [Accessed: March 2015].

assessment³. However, several respondents argued that their link to outcomes is sometimes unclear or unproven.

"[I]t is frustrating that the community pharmacy contract indicators have to be 'bean counting' i.e. number of NMS or MUR rather than outcomes. My dream would be to be able to benchmark outcomes for NMS or MURs e.g. number of respiratory MURs against number of unplanned admissions in that disease area - probably not realistic!" (CP).

"This is a very helpful starting point for indicators. However, we would welcome a move towards more outcomes, rather than process based indicators" (Industry).

"Would like to see a move towards measurement of patient outcomes if possible" (CSU).

"If this indicator is to relate to Medicines Optimisation it needs to cover more than simply the numbers of reviews undertaken. This is the process but without any impact on outcome it doesn't really tell us anything. I wonder if this is included because it can be measured easily whereas showing the outcome may be much more difficult to achieve" (Trust).

Patient Centred Focus: Respondents also shared their belief that there were not enough indicators that were directly related to patients, especially given the definition of Medicines Optimisation "...requires evidence-informed decision making about medicines, involving effective patient engagement and professional collaboration to provide an individualised, person-centred approach to medicines use, within the available resources" (NICE, 2013, Medicines Optimisation: Scope consultation).

Patient-based outcomes are concerned with outcomes that are considered important to people as they focus on the quality of their health. They offer a unique perspective and may give different results to physician-based outcomes. Thus patient-based outcomes can be used to evaluate interventions and health care from the patients' perspective

"Hardly any are directly related to patients" (CCG).

"There is a need for the indicators to more closely reflect the principles of Medicines Optimisation set out by the RPS. Bringing together primary care clinical targets and advanced pharmacy services has potential to build into a more holistic patient centred service offering but there is a lack of specific patient orientated indicators which support improved outcomes through adherence support etc." (Industry).

Additional Suggested Indicators for Addition: Below are indicators that were mentioned infrequently by respondents:

- Monitoring of adverse events
- Diabetes indicators
- Additional QIPP measures
- Respiratory indicators (asthma, COPD)
- Safety related indicators (omitted doses, medication incidents, medicine related admissions)

³ Donabedian A (1988). 'The quality of care. How can it be assessed?' Journal of the American Medical Association, vol 260, no 12, pp 1743–8.

6.4 Industry Findings

6.4.1 Awareness of Medicines Optimisation and the MOD

The industry questionnaire received 18 responses from the emails sent to members of The Association of the British Pharmaceutical Industry. The majority of respondents (89%, n=16) indicated that their organisation engages with customers about Medicines Optimisation, and just over half (56%, n=10) have a MO lead within their organisation.

This engagement happened in the course of normal work with their customers, however some companies had specific teams or designated staff members to address Medicines Optimisation with their customers.

“It forms an integral part of the conversations our account managers are having with customers where we try to establish partnerships that deliver improvements in patient outcomes, efficiencies for the NHS and appropriate use of our meds” (Industry).

Respondents highlighted that while they worked with their customers on multiple levels on Medicines Optimisation, there was variation in the awareness and engagement of their customers. Among customers who had an awareness of Medicines Optimisation, much of the focus remained on a traditional ‘medicines management’ approach and focussed on cost, rather than on principles of quality or Medicines Optimisation.

“We engage with customers at all levels of the NHS on the Medicines Optimisation agenda. There is a notable difference between the understanding and engagement of the MO agenda at senior and operational levels of the NHS. Most pharmacists and Medicines Optimisation personnel, whilst understanding the philosophy behind MO, still focus on the traditional medicines management approach of looking at medicines as an acquisition cost” (Industry).

6.4.2 Utilisation of the MOD

The majority of respondents (83%, n=15) indicated that the dashboard “provides a potential opportunity for closer working with NHS to improve the use of medicines and patient care” and 61% (n=11) indicated the dashboard “support[s] adoption of Medicines Optimisation into routine practice and change[s] behaviours.”

Analysis of the free text of the survey identified that respondents believed that there was not enough understanding and awareness of Medicines Optimisation or the dashboard in order to drive change.

“There is still a big challenge in getting wide support and understanding that Medicines Optimisation is about quality, not cost” (Industry).

Additionally, they felt that behaviour change towards a focus on quality and Medicines Optimisation would only come with a stronger leadership and a broader strategy on the part of NHS England, with part of this strategy including greater NHS emphasis on Medicines Optimisation and the use of incentives or other drivers to prioritise system change.

“At a more strategic level customers understand what it is trying to achieve, but when talking [to] a number of front line clinicians it often doesn't resonate. The usual drivers of behaviour still prevail such as cost and short term deliverables in terms of outcomes” (Industry).

“There still needs to be a communication strategy and education programme to drive higher awareness and effective use of the dashboard” (Industry).

“[T]he current version of the dashboard has little weight behind it for meaningful discussions at CCG/Trust level as there are no incentives and levers behind it and it uses data that can be accessed readily and so provides no value” (Industry).

“There is a significant need for NHS England to support the use and application of the data (or intelligence) to deliver appropriate actions and outcomes. Before it will impact behaviours there needs to be increased awareness of the dashboard outside of those creating/collating/distributing it. It should be clear who is responsible & accountable at the local level (Trust/CCG/Area Team/NHS England) to “own” and promote the dashboard & provide a response to any issues....If “owned” and used more widely by the NHS it could support increased adoption of MO as it has good information but so far it has been companies taking this to NHS customers for discussion so it has had little impact” (Industry).

“Until the metrics become more outcomes focused and have incentives and levers built around them, the dashboard will be fairly limited in its ability to drive a change in behaviour” (Industry).

“Incentives / sanctions should underpin this to ensure cost containment and overriding focus on safety at the expense of the other principles doesn't pervade” (Industry).

6.4.3 Appropriateness of the MOD

The majority of respondents (74%, n=14) did not think the four principles of MO were appropriately reflected in the dashboard. Analysis of the free text identified that respondents believed that the dashboard focused too heavily on the safety principle of MO (Principle 3) and not enough on the three other principles of MO (to understand the patient’s experience, ensure evidence based choice of medicines, make Medicines Optimisation part of routine practice).

“In principle a dashboard would support adoption of the policy but in practice the first version of the dashboard cannot really do this as it does not have an equal focus on all four domains outlined in the policy” (Industry).

“Most of the metrics focus on principle 3 (ensure medicines use is as safe as possible) and so activities on Medicines Optimisation seemed to be more focused around this” (Industry).

6.4.4 Indicators Suggested for Addition

NICE Approved Medicines/Innovation: Respondents indicated they would like to see more NICE approved medicines, beyond just NOACs. Suggested indicators of overall uptake of NICE approved medicines were:

- Percent of formularies not positioning medicine as indicated in NICE guidance
- Proportion of older medicines used per CCG versus NICE-approved medicines
- Overall prescribing of medicines licensed (and possibly approved by NICE) in the last 5 years as a measure of overall prescribing and comparison of these figures with patient outcome measure of treatment)
- % of formularies not positioning medicine as indicated in NICE guidance
- Use of NICE-approved medicines observed vs expected uptake (innovation scorecard)
- Measure of hospital admissions due to adverse drug reaction – hypoglycaemia
- Proportion of metformin and SUs used versus per CCG NICE-approved medicines

Disease Specific Indicators: Several respondents highlighted their wish to see disease specific indicators. These suggestions generally focussed on chronic diseases including diabetes, rheumatoid arthritis, cardiovascular disease, and respiratory diseases (asthma and COPD).

Link to Medicines Optimisation: Respondents from the industry survey also felt that the dashboard needed measures that were more closely related to the Medicines Optimisation agenda.

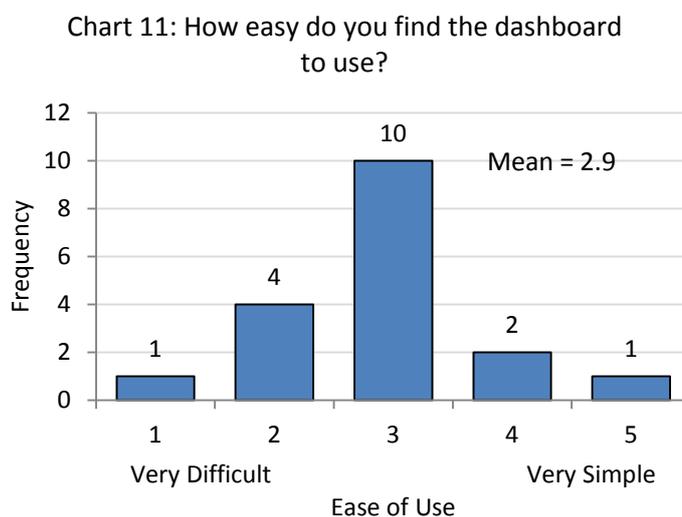
Secondary Care Indicators: Similarly to the health service providers, industry respondents highlighted the need for additional secondary care indicators.

Infrequent Responses: Infrequent responses from respondents included vaccination indicators and GRASP audit tool indicators.

6.4.5 Functionality of the MOD

The ease of use of the dashboard was rated on a scale of 1 to 5 by respondents, with one indicating that the respondent found the dashboard “very difficult” to use and 5 indicating the respondent found the dashboard “very simple” to use.

Respondents rated the dashboard at a mean of 2.9, with the majority of respondent rating it at a three. Only 3 respondents indicated they found the dashboard on the easier to use size. This, along with free text comments seem to indicate that the dashboard was found to be a little too complex and took time for respondents to understand what it meant and how to navigate it.

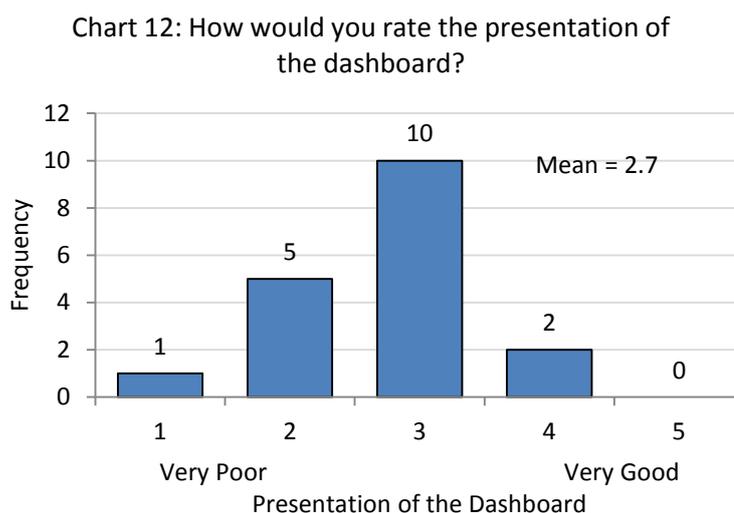


Several respondents called for a more user-friendly interface using a simpler form of presenting the data and a simpler way of comparing data.

"As a suggestion on the functionality of the dashboard, it would be useful to have a function that highlighted the areas a CCG/Trust are doing well and not so well (traffic light system). This would better highlight the areas to focus on." (Industry).

Similarly, the presentation of the dashboard was rated on a scale of 1 to 5 by respondents, with “1” indicating that the respondent found the dashboard presentation “very poor” and “5” indicating “very good” presentation.

The mean rating from respondents was 2.7, with the majority of respondents rating it at a three. No one rated the presentation of the dashboard as very good and one third of respondents rated the dashboard as either a 1 or 2 indicating poor presentation. Free text comments seemed to support the notion that the presentation needed to be improved.



The most frequently suggested improvement to the dashboard was the presentation of the data and the ease of use. Other suggestions were to explain how each indicator applies to MO, or assigning indicators to a specific principle of MO to clearly demonstrate the link. Other respondents wanted clear information on why metrics have been included or excluded and that the methodology should be more transparent.

Overall, the industry respondents were positive and supportive of the MOD and felt that with strong NHS England leadership and energy behind it the dashboard and the MO movement could foster system change.

7 Optimising the Medicines Optimisation Dashboard

7.1 Key Value of the Dashboard

When directly asked about the key value of the dashboard the ability to be able to **benchmark** performance against other local healthcare organisations and also nationally was the most common response.

“I think that comparative data is immensely important; otherwise you’re working in isolation. You don’t know how good the services are that you’re commissioning or how good the services are that you’re providing yourself, unless you’ve actually got some benchmarking” (CCG).

Feedback indicated that this ability to highlight where healthcare organisations were doing well and where they need to improve allows the ability to focus local efforts and set **local priorities**, in turn allowing **quality improvement** efforts to be targeted where they are most needed. In addition, the ability to benchmark oneself allowed healthcare organisations to **prove their value** and the **quality of their services**.

Benchmarking aims to help organisations understand their performance and why they are performing at that level, understanding where performance differs among organisations, why differences occur, and to help to identify and share best practices. Given this current interest among healthcare organisations wishing to understand differences between their performance and other organisations, it would be beneficial to use the momentum to further improve the MOD and encourage its wider use to ultimately learn together and to share best practices.

Respondents also highlighted the importance of the Medicines Optimisation agenda and that the dashboard would help to **raise awareness** and to **support the work of Medicines Optimisation**.

Lastly the value of having a **wide scope** of data from **across the health economy** that supported the Medicines Optimisation agenda, and all being **housed in one location** was cited as a valuable tool for users of the dashboard.

7.2 Conclusions

The overwhelming response from those that participated in the evaluation was that the dashboard was a worthwhile undertaking that brought additional insight and improved ease of access to their data; but for it to become more useful and useable there needed to be some refinements.

Among the refinements were improvements to the data accuracy and data uniformity, and improvements surrounding the clarity, usability, and presentation of the dashboard. Resolving data issues are frequently an early stage of any new dashboard or benchmarking projects as users begin to look at their data in a way that they have not done before. This process of assessment to verify the accuracy of the data and data procedures is a healthy first step in the advancement of any trusted tool.

Respondents also wanted indicators that could be directly influenced by the work they do or by their colleagues within their organisation. However, many of these indicators could theoretically be influenced by commissioning decisions and should therefore be under local control.

There was widespread support for the benchmarking ability of the MOD to enable comparisons with other healthcare organisations; however, concerns were raised regarding the manageability of the review of the dashboard and the required action that may follow as a result of their performance.

Further refinements to the dashboard were to ensure that it was focussed on the Medicines Optimisation agenda and to make this more explicit in the documentation. There was also contradictory support for narrowing and honing the scope of the dashboard while others voiced support the inclusion of more specialty care indicators.

Industry responses were quite positive but their recommendations for improvement were somewhat aspirational and did not appear to be practical within the resources at the MO leads disposal (e.g., needing to know patients diagnosis for the measurement of compliance).

There appeared to be widespread awareness of the dashboard among local healthcare organisations (CCG, Trusts, ATs, etc.), however use of the dashboard was more varied. There was some exploration of the dashboard and what it meant and there were some instances where the dashboard led to local action in an attempt to explain and improve performance. Often these efforts were hampered by the perception that the dashboard was of limited use due to the age or accuracy of the data or the scope of the dashboard.

Utilising this iterative process of seeking feedback from stakeholders, applying this to develop the dashboard, and with ongoing NHS England leadership and championing there is every opportunity for the dashboard to become a widely valued and utilised tool in support of the medicines optimisation agenda .

7.3 Key Findings

A summary of the key findings is as follows:

- The dashboard was welcomed by the majority of users.
- The ability to benchmark performance is a valued and important utility of the dashboard.
- The accuracy, uniformity, and lag of the data raised concerns among users.
- The interface and user-friendliness of the dashboard would benefit from improvement.
- There was consensus that the dashboard should be more explicitly focussed on indicators that relate to Medicines Optimisation and that are shown to improve patient outcomes.
- While the wide scope of the dashboard was appreciated by many, there was some concern that the dashboard was trying to do too much.
- The dashboard would benefit from additional mental health indicators.
- There were questions raised over the ability of CCGs and Trusts to influence their performance on some of the indicators.
- There was some concern that the dashboard was too CCG focussed with not enough indicators focusing on Trusts.
- While there was awareness of the dashboard, its application was limited.
- Improved focus on the implementation and rollout of the dashboard will enhance understanding and awareness and increase the trust and utilisation of the dashboard.

While this evaluation has provided valuable evidence surrounding the reception and use of the dashboard, caution must be used when interpreting some of this data. Some of these conclusions are drawn on quite low numbers so may not be representative of the wider community. Additionally, random sampling was not used when collecting survey responses, again meaning that the findings may not be representative of the entire user group. Despite these limitations, the evaluation does provide a first valuable glimpse into the reception of this pilot dashboard.

8 Appendices

8.1 Appendix A: Health Service Initial Survey

Initial Evaluation of the NHS England Prototype Medicines Optimisation Dashboard

NHS England has commissioned Keele Centre for Medicines Optimisation (KCMO) to complete an evaluation of the Medicines Optimisation Dashboard (MOD) to help inform decisions regarding further development of the dashboard. Should you have any problems accessing or completing the questionnaire please contact KCMO directly at medman@keele.ac.uk

This short questionnaire is followed by an opportunity to provide any more detailed observations or comments you may have. It should take no longer than 10 minutes to complete. A more detailed follow-up questionnaire is planned for September.

Unless you provide specific information that identifies you, all responses to this questionnaire are anonymous. All responses will be treated as confidential.

The MOD is available from: <http://www.england.nhs.uk/ourwork/pe/mo-dash/>

I really appreciate you taking the time to complete this questionnaire and would ask that all responses are submitted by Friday 19th September.

Clare Howard
Deputy Chief Pharmaceutical Officer, NHS England

***Required**

Top of Form

Section 1: Awareness of the Medicines Optimisation Dashboard

Which NHS region to you work in? *

Please select one region

- North of England
- Midlands and East of England
- London
- South of England

Are you aware of the Medicines Optimisation Dashboard, which was launched by NHS England on 12 June 2014? *

Note: Selecting "No" will end this survey

- Yes
- No

Section 2: Your role within your organisation

Please select your role: *

Please select the most appropriate description of your role

- CCG Accountable Officer
- CCG Chief Finance Officer
- CCG Medicines Optimisation Lead

- Pharmacy Local Professional Network Lead
- Trust Chief Pharmacist
- Other:

Section 3: Contents of the Medicines Optimisation Dashboard

This section is focused on your overall opinions of the dashboard. Please provide as much detail as you are able for each of the following questions.

What were your initial (one or more) action(s) regarding the MOD?

You may select one or more responses to this question

- Delegate a team member to review the MOD
- Review prepared for consideration by a committee or board in your organisation
- Details forwarded to a group that reports to a committee or board in your organisation
- Report taken for consideration by the Local Professional Network
- Other:

Please rate the overall usefulness of the dashboard *

	1	2	3	4	5	6	7	
	<input type="checkbox"/>							
Not at all useful								Very useful

Do you have any comments on the indicators that have been included?

Please be as specific as possible about which indicator(s) your comment(s) relate(s) to.

Are there additional indicators which you would wish to see included?

Please be as specific as possible.

Are there any indicators that you would like to be removed from future versions of the MOD?

If yes, please state which indicator AND why

Section 4: General observations and comments

Thank you for your time in completing this questionnaire. Below there is space for you to provide any further observations or comments you have regarding the MOD. Please include details of any areas of the MOD which have initiated local debate.

Do you have any further observations or comments about the MOD?

Please tell us where you heard about this questionnaire: *

Please tick all that apply

- Forwarded e-mail from a colleague
- NICE website

- Direct e-mail from Keele University
- Twitter / Facebook / Other Social Media
- NHS England website
- CCG Bulletin
- Other:

Section 5: Your details (optional)

Please provide your name, role and organisation if you would be happy for any comments to be followed up directly. Please note that this information is optional and providing it does not guarantee a response. If you have specific questions please direct them to England.MODashboard@nhs.net. Including information on this page will make your responses identifiable.

Name

Job Title

Organisation

E-mail Address

8.2 Appendix B: Health Service Detailed Survey

Evaluation of the NHS England Prototype Medicines Optimisation Dashboard

NHS England has commissioned Keele Centre for Medicines Optimisation (KCMO) to complete an evaluation of the Medicines Optimisation Dashboard (MOD) to help inform decisions regarding further development of the dashboard. Should you have any problems accessing or completing the questionnaire please contact KCMO directly at medman@keele.ac.uk

Depending on your specific job role, this questionnaire is split into up to seven main sections, followed by an opportunity to provide any more detailed observations or comments you may have. Depending on the number of sections you are asked to complete, it should take no longer than 15 to 45 minutes to complete.

Unless you provide specific information that identifies you, all responses to this questionnaire are anonymous. All responses will be treated as confidential.

The MOD is available from: <http://www.england.nhs.uk/ourwork/pe/mo-dash/>

I really appreciate you taking the time to complete this questionnaire and would ask that all responses are submitted by Friday 31st October.

Bruce Warner
Deputy Chief Pharmaceutical Officer, NHS England

***Required**

Section 1: Awareness of the Medicines Optimisation Dashboard

Which NHS region do you work in? *

Please select one region

- North of England
- Midlands and East of England
- London
- South of England

Are you aware of the Medicines Optimisation Dashboard, which was launched by NHS England on 12 June 2014? *

- Yes
- No

Did you complete the initial questionnaire regarding the Medicines Optimisation Dashboard?*

- Yes
- No

Section 2: Contents of the Medicines Optimisation Dashboard

This section is focused on your overall opinions of the dashboard. Please provide as much detail as you are able for each of the following questions.

Please rate the overall usefulness of the dashboard *

1 2 3 4 5 6 7

Not at all useful Very useful

Do you have any comments on the indicators that have been included?

Please be as specific as possible about which indicator(s) your comment(s) relate(s) to.



Are there additional indicators which you would wish to see included?

Please be as specific as possible.



Are there any indicators that you would like to be removed from future versions of the MOD?

If yes, please state which indicator AND why



Section 3: Your role within your organisation

The next set of questions is based on your current role and your response to the question of this page will automatically direct you to specific sections of the rest of the questionnaire.

Please select your role: *

Please select the most appropriate description of your role

- CCG Accountable Officer
- CCG Chief Finance Officer
- CCG Medicines Optimisation Lead
- Pharmacy Local Professional Network Lead
- Trust Chief Pharmacist
- Other:

Section 4a: Consideration and sharing of the Medicines Optimisation Dashboard

This section looks at how you have used the dashboard within your organisation's local reporting and information structures. Please provide as much detail as you are able for each of the following questions.

Will / have the local implications of the MOD content been considered by the CCG senior leadership team or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No
- Don't Know / Not Sure

Will / have the local implications of the MOD content been considered by a group that reports to the CCG senior leadership team or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No
- Don't Know / Not Sure

Have you asked one of your team to take a lead on consideration of the local implications of the MOD content? *

- Yes
- No

If you answered Yes, please specify the individual's role

Please include the individual's job title and not their name

Has the local implications of the MOD content influenced your personal professional practice?

Section 4b: Consideration and sharing of the Medicines Optimisation Dashboard

This section looks at how you have used the dashboard within your organisation's local reporting and information structures. Please provide as much detail as you are able for the following question.

Will / have the local implications of the MOD content been considered by the Local Professional Network board? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No
- Don't Know / Not Sure

Section 4c: Consideration and sharing of the Medicines Optimisation Dashboard

This section looks at how you have used the dashboard within your organisation's local reporting and information structures. Please provide as much detail as you are able for each of the following questions.

Have you taken a report on the local implications of the MOD content to a decision making group or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No

If you answered Yes, please give the name of the decision making group or governing body

Does your Trust supply data on medicines reconciliation to the NHS Safety Thermometer? *

For more information about the NHS Safety Thermometer please see <http://www.safetythermometer.nhs.uk/>

- Yes
- No
- Don't Know / Not Sure

Section 4d: Consideration and sharing of the Medicines Optimisation Dashboard

This section looks at how you have used the dashboard within your organisation's local reporting and information structures. Please provide as much detail as you are able for each of the following questions.

Have you taken a report on the local implications of the MOD content to a decision making group or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No

If you answered Yes, please give the name of the decision making group or governing body

Section 4e: Consideration and sharing of the Medicines Optimisation Dashboard

This section looks at how you have used the dashboard within your organisation's local reporting and information structures. Please provide as much detail as you are able for each of the following questions.

Will / have the local implications of the MOD content been considered by the CCG senior leadership team or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting
- No
- Don't Know / Not Sure

Will / have the local implications of the MOD content been considered by a group that reports to the CCG senior leadership team or governing body? *

- Yes – has already been considered
- Yes – is scheduled for consideration at a future meeting

- No
- Don't Know / Not Sure

Have you asked one of your team to take a lead on consideration of the local implications of the MOD content? *

- Yes
- No

If you answered Yes, please specify the individual's role

Please include the individual's job title and not their name

Section 5: Medicines Optimisation Dashboard supporting work with NHS partners

This section looks at how you have used the dashboard to support work with other NHS partner organisations. You may feel that some questions are not applicable to your role and you are welcome to mark these questions as such. Please provide as much detail as you are able for each of the following questions.

Have you used the summary page when sharing the MOD within your organisation? *

- Yes
- No
- Don't Know / Not Sure

How useful was the summary page in sharing the MOD within your organisation?

1 2 3 4 5 6 7

Not at all useful Very useful

Have you used the MOD to support dialogue with other local healthcare organisations or partners? *

- Yes
- No

Section 5 continued

This section looks at how you have used the dashboard to support work with other NHS partner organisations. You may feel that some questions are not applicable to your role and you are welcome to mark these questions as such. Please provide as much detail as you are able for each of the following questions.

Has the MOD been shared with GP practices? *

- Yes
- No
- Don't Know / Not Sure
- Not Applicable (to my role)

In your view, how useful has the MOD been in supporting dialogue with other healthcare organisations?

1 2 3 4 5 6 7

Not at all useful Very useful**How useful has the MOD been in supporting work with the partners listed below? ***

	1 = Not at all useful	2	3	4	5	6	7 = Very useful	N/A
Other CCGs	<input checked="" type="checkbox"/>							
Community Pharmacies	<input checked="" type="checkbox"/>							
GP Practices	<input checked="" type="checkbox"/>							
Local Professional Networks	<input checked="" type="checkbox"/>							
NHS / Foundation Trusts	<input checked="" type="checkbox"/>							
Public and Patients	<input checked="" type="checkbox"/>							

Have you used the summary page when sharing the MOD with partners? *

- Yes
 No
 Don't Know / Not Sure

In your view, how useful has the summary page been in supporting dialogue with partners?

1 2 3 4 5 6 7

Not at all useful Very useful**Please provide further details of how you have used the MOD to support dialogue with partners**

Please give examples of how the MOD and/or summary page has supported your conversations with other healthcare organisations e.g. your local CCG / Trust

Do you have any further observations or comments about how the MOD has supported work with partner organisations?

Section 5e: Medicines Optimisation Dashboard supporting work with NHS partners

This section looks at how you have used the dashboard to support work with other NHS partner organisations.

Have you used the MOD to support dialogue with other local healthcare organisations? *

- Yes
 No

Section 5e continued

This section looks at how you have used the dashboard to support work with other NHS partner organisations. You may feel that some questions are not applicable to your role and you are welcome to mark these questions as such. Please provide as much detail as you are able for each of the following questions.

Has the MOD been shared with GP practices? *

- Yes
 No
 Don't Know / Not Sure
 Not Applicable (to my role)

In your view, how useful has the MOD been in supporting dialogue with other healthcare organisations?

1 2 3 4 5 6 7

Not at all useful Very useful

Section 6: Medicines Optimisation Dashboard supporting work with external organisations

This section looks at how you have used the dashboard to support work with other external organisations. You may feel that some questions are not applicable to your role and you are welcome to mark these questions as such. Please provide as much detail as you are able for each of the following questions.

Has your organisation used the MOD when working with pharmaceutical companies? *

- Yes
 No
 Don't Know / Not Sure
 Not Applicable (to my role)

If you answered Yes, please provide further details

Please give examples of how you have used the MOD to support your conversations with pharmaceutical companies

Has there been any interest or coverage of the MOD by local media? *

- Yes

- No
- Don't Know / Not Sure
- Not Applicable (to my role)

Do you have any further observations or comments about how the MOD has supported your work with partner organisations?

Section 7: Development of Medicines Optimisation in your organisation

This final section looks at how the dashboard can support the development of Medicines Optimisation within your organisation. You may feel that some questions are not applicable to your role and you are welcome to mark these questions as such. Please provide as much detail as you are able for each of the following questions. Following this section there is space for you to provide any further observations or comments you have regarding the MOD.

In your view, will / has the MOD supported the development of Medicines Optimisation within your organisation? *

- Yes
- No
- Don't Know / Not Sure
- Not Applicable (to my role)

In your view, has the MOD been a useful tool in supporting your organisation to develop a local approach to Medicines Optimisation?

1 2 3 4 5 6 7

Not at all useful Very useful

Will / have you used the MOD to support development of commissioning plans within your organisation? *

- Yes - already used
- Yes - plan to use
- No
- Don't Know / Not Sure
- Not Applicable (to my role)

Do you have any further observations or comments about how the MOD has supported the development of Medicines Optimisation within your organisation?

Section 8: General observations and comments

Thank you for your time in completing this questionnaire. Below there is space for you to provide any further observations or comments you have regarding the MOD. Please include details of any areas of the MOD which have initiated local debate.

Do you have any further observations or comments about the MOD?

Please tell us where you heard about this questionnaire: *

Please tick all that apply

- Forwarded e-mail from a colleague
- NICE website
- Direct e-mail from Keele University
- Twitter / Facebook / Other Social Media
- NHS England website
- CCG Bulletin
- Other:

Section 9: Your details (optional)

Please provide your name, role and organisation if you would be happy for any comments to be followed up directly. Please note that this information is optional and providing it does not guarantee a response. If you have specific questions please direct them to England.MODashboard@nhs.net. Including information on this page will make your responses identifiable.

Name

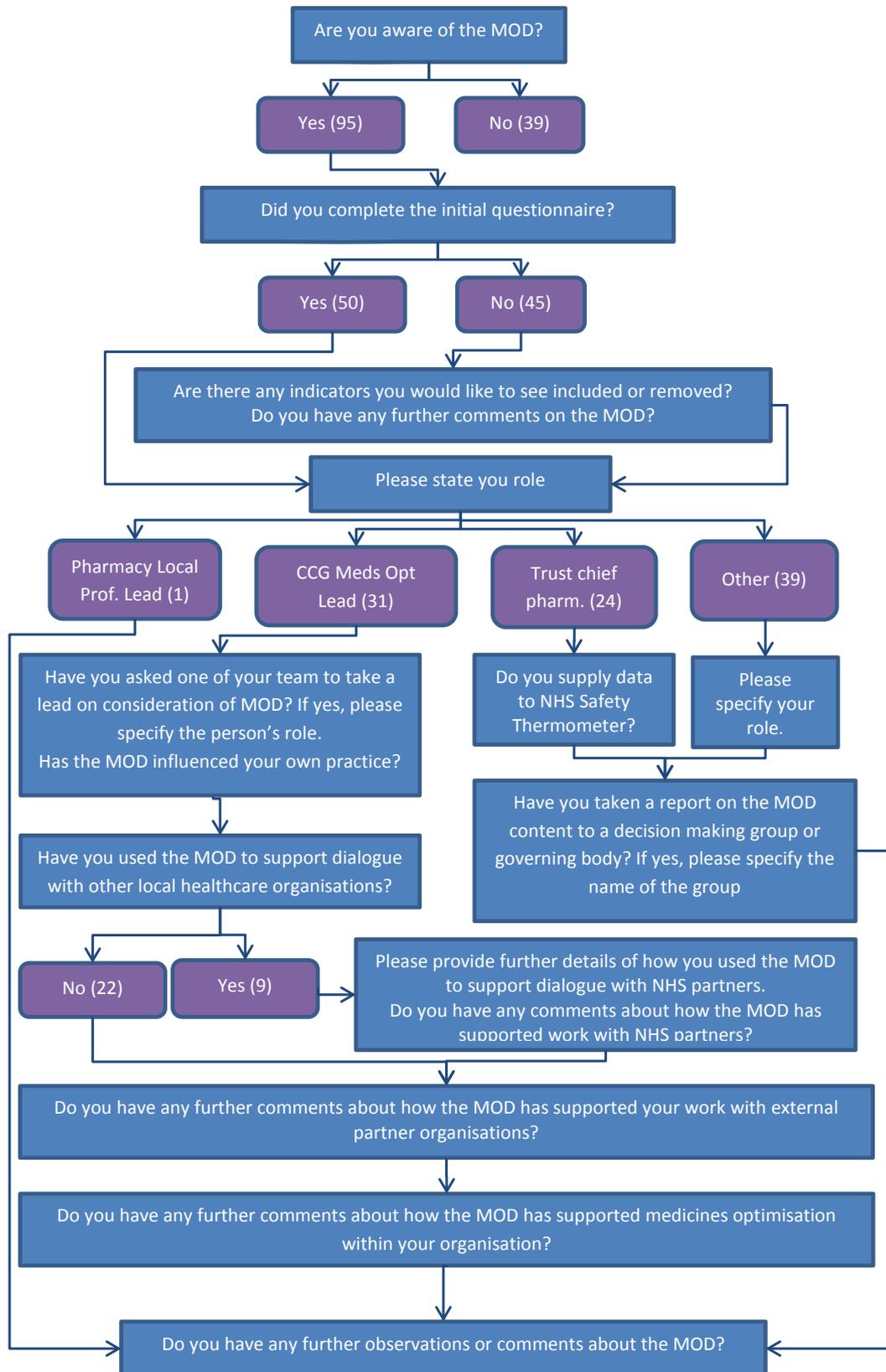
Job Title

Organisation

E-mail Address

8.3 Appendix C: Health Service Questionnaire Logic Flowchart

MOD questionnaire logic for free text questions



8.4 Appendix D: Industry Survey

Industry evaluation of NHSE Medicines Optimisation dashboard

Medicines Optimisation (MO): Have your say

NHS England launched the Medicines Optimisation dashboard on 12 June 2014 in order to support the implementation of Medicines Optimisation across the NHS in England. NHS England would like to explore awareness and utility of the dashboard by all stakeholders including industry and have commissioned University of Keele to undertake an evaluation of the dashboard. The results of the evaluation will help to shape future versions of the dashboard.

The ABPI has collaborated with University of Keele to build a short questionnaire to seek the views and insights of the pharmaceutical industry. The results of this survey will be combined with a similar exercise being undertaken by the University to gain the views of other stakeholders across the NHS. A combined report will be published by the University early in 2015.

The MOD is available from: <http://www.england.nhs.uk/ourwork/pe/mo-dash/>

This survey will only take 10 minutes to complete. Please complete the survey by December 12th. This questionnaire is an important opportunity for industry to share its views on this highly important topic. It is important that there is only one response per company so please ensure that this communication is forwarded to the most appropriate person in your organisation to complete this survey.

Thank you.

***Required**

Awareness of Medicines Optimisation

The Medicines Optimisation dashboard, developed in collaboration with CCGs, Trusts and the pharmaceutical industry, builds on the principles of Medicines Optimisation agreed by NHSE, RPS, ABPI, RCN, RCGP & Academy of Medical Royal Colleges. <http://www.rpharms.com/promoting-pharmacy-pdfs/helping-patients-make-the-most-of-their-medicines.pdf> The prototype dashboard brings together a range of medicines-related quality indicators in a way never done before. 'NHS England hopes to better coordinate primary care services to support medicines use in order to improve treatment outcomes'. ABPI fully supports Medicines Optimisation as a new way of supporting medicines utilisation so that the true intrinsic value can be fully realised by patients and the NHS.

Are you aware of the four principles of Medicines Optimisation? *

- Yes
- No

Is Medicines Optimisation important to your company? *

- Yes
- No

Does your organisation engage with customers in discussion about Medicines Optimisation?*

- Yes
- No

If you answered Yes, please expand.

Does your organisation have a lead for Medicines Optimisation? *

- Yes
 No

Awareness of Medicines Optimisation Dashboard

Are you aware of the MO dashboard? *

- Yes
 No

Have you reviewed the MO dashboard? *

- Yes
 No

Are you clear about its purpose for England? *

- Yes
 No

Utilisation of Medicines Optimisation Dashboard

Does the MO dashboard provide a potential opportunity for closer working with NHS to improve the use of medicines and patient care? *

- Yes
 No

If you answered Yes, please expand (please include NHS organisation type, brief detail of activity).

Does the existence of the dashboard support adoption of Medicines Optimisation into routine practice and change behaviours. *

- Yes
 No

Please explain your choice.

Suitability of Medicines Optimisation Dashboard

Do you think the 4 principles of MO are appropriately reflected in the dashboard? *

- Yes
 No

Which measures in the dashboard would you stop, and why?

Which measures in the dashboard would you continue, and why?

Which measures in the dashboard would you refine, and why?

What new measures would you suggest for inclusion in any future iteration? (Please factor in feasibility of access to data and validity/quality of data)

Functionality of Medicines Optimisation Dashboard

How easy do you find the dashboard to use? *

1	2	3	4	5	
Very Difficult	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Very Simple

How would you rate the presentation of the dashboard? *

1	2	3	4	5	
Very Poor	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Very Good

What function of the dashboard do you think could be improved?

If you could change one thing about the dashboard, what would it be?

Additional comments

If you have any additional comments that you would like to make, please list them here.

Your details (optional)

Please provide your name, role and organisation if you would be happy for any comments to be followed up directly. Please note that this information is optional and providing it does not guarantee a response. If you have specific questions please direct them to England.MODashboard@nhs.net. Including information on this page will make your responses identifiable.

Name

Company

Role

8.5 Appendix E: Health Service Telephone Interview

Medicines Optimisation Dashboard Telephone Interview Script

Text in italic is not read to the interviewee.

This is [Interviewer Name] from the Keele Centre for Medicines Optimisation and

I'm following up from my earlier email about scheduling 15 minutes to talk with you further about the Medicines Optimisation Dashboard, do you have time to talk now or could we schedule a time to talk?

[OR]

I'm calling as arranged to talk with you further about the Medicines Optimisation Dashboard. Are you able to talk now?

The goal is to hear from you in a little more depth about the Medicines Optimisation Dashboard. This will help inform decisions regarding the development of the dashboard. It should only take about 15 minutes. Your responses will be confidential; however I am recording this conversation for purposes of transcription. Do you have any questions or concerns?

General value of the dashboard

- 1) Thinking about the dashboard as a whole, is it a useful tool?
- 2) What do you think is the key value of the dashboard?
- 3) How could we change the dashboard to build upon this "key value"? *[use interviewees wording]*

Context and understanding of the dashboard

- 4) Do you have any unanswered questions about the rationale of the MO dashboard or any of the individual indicators?
- 5) How could the dashboard help you address these unanswered questions?
 - a) Possible probe: did you read the accompanying documents "MO dashboard supporting information" or "MO dashboard FAQs"?

Outcomes of the dashboard

- 6) As part of the online survey you were asked if "the implications of MOD content had been considered by some kind of governing body"
 - a) and you answered "YES":
 - i) What was that 'governing body' and what level does it work at
 - ii) Has this resulted in a plan to address any of the issues highlighted in the dashboard?
 - b) and you answered "NO", is this still the case? Does your CCG/Trust have any plans to do this?

Local reception

- 7) In general, how do you think the dashboard was received locally?
- 8) Can you tell me about any specific comments you have received locally regarding the dashboard?

General Comments

- 9) Was there anything in the performance of your trust/CCG, highlighted by the dashboard, that concerned you?
 - a) Did you investigate this further?
- 10) Do you trust the information in the dashboard?
- 11) Do you have any further comments that might help NHS England in improving and refining the dashboard?

Thanks for your time.