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Patient and doctor perspectives survey

Exploring influence, trust, confidence and concerns about healthcare both now and in the future
Patient and doctor perspectives survey: Exploring influence, trust, confidence and concerns about healthcare both now and in the future

This is part of Team Consulting's review into healthcare in the year 2030.

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The full data tables can be requested by emailing marketing@team-consulting.com.

If you have further questions regarding the data or would more information please email marketing@team-consulting.com.
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Executive summary

Everything we do is about getting life-saving and life-changing medication or devices to the people that need them. But in order to do this successfully we have to have a better understanding of the experiences and perspectives of healthcare professionals and patients. As well as their experiences now, we also need to consider how their expectations will change in the near future.

In our survey we took a look at who patients and doctors trusted, how confident patients were when it came to medical devices, the level of involvement they wanted in their healthcare, and the concerns they had over the medication they were prescribed. We also asked respondents how they felt about the future. Looking at their answers now and their feelings about the future highlight some interesting trends regarding the role of the patient.

What is certain from this survey is that no two patients are the same. Patients, whether you split them by geography, age, sex or condition, are fragmented. They all have very different views on their condition and barriers to adherence. Yet when you look at the drugs and devices on offer they don’t differentiate disparate patient groups. This presents us with a number of challenges for the future. Should medical devices be so easy to use that we can just design it once and it works for everybody? Or do we need to tackle the challenges of personalisation head on?

The doctors in our survey see patients being more involved and having much more influence over their healthcare in the future, and they feel that there is a burning desire amongst patients now to be more involved. Our survey highlights a different patient point of view, so will patients happily take on more of an active role or will there be resistance? And if patients have more influence, what impact does that have on devices and medication? Do medical devices need to be more appealing?

There are a number of questions raised by this survey. The good news is that we’ve got 15 years to find the answers.

Neil Cooper
Head of Marketing, Team Consulting
Introduction

In July 2014, Team Consulting commissioned a survey of 2,000 patients suffering from chronic conditions and 208 specialist doctors in the UK and US to better understand their perspectives on their healthcare experiences. In particular, we wanted to understand how they feel today as well as how this may change over the coming years.

As we discover new drugs and design new medical devices and technologies we need to have clear plans for the future. We need to better understand the wider context of growing and demanding populations and market forces, as well as the subtle changes in patient/doctor behaviour and expectations of healthcare. It is important that we place patients and their relationship with the healthcare infrastructure at the centre of our work.

This survey has been conducted to inspire the industry and ensure we continue to push healthcare in the right direction.

About the survey

This online survey was conducted by EasyInsites on behalf of Team Consulting. Through polling company CINT, 2,003 patients with identified pre-existing, chronic medical conditions took part (1,001 in the UK and 1,002 in the US) and through M3 Global Research, 208 doctors took part (103 in the UK and 105 in the US).

Participants that didn’t have a specific condition or a professional specialism were eliminated from the survey. We wanted to understand the opinions and thoughts of people coping with long-term medical conditions.

About Team Consulting

Based in Cambridge, UK, Team Consulting is a multi-award-winning, fee-for-service medical device developer.

Working for clients that include seven of the world’s top ten largest pharmaceutical companies, Team applies its expertise in human factors, engineering and design to help clients select, evolve or design new products from scratch. Team is focused purely on the medical sector, so the company is able to use its insights to help clients navigate this complex industry.

For more information, visit www.team-consulting.com
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About the respondents

**PATIENTS**

In both the US and UK we surveyed a range of patients spread across geographies, age ranges, conditions and gender.

**Surveyed patients by age**

![Surveyed patients by age graph](image1)

**Surveyed patients by condition**

![Surveyed patients by condition graph](image2)
### Surveyed patients by gender

![Surveyed patients by gender chart](chart.png)

#### Surveyed patients by location

<table>
<thead>
<tr>
<th>UK Location</th>
<th>No.</th>
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</thead>
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<td>London</td>
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<tr>
<td>Midlands</td>
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</tr>
<tr>
<td>North East</td>
<td>46</td>
</tr>
<tr>
<td>North West</td>
<td>99</td>
</tr>
<tr>
<td>Northern Ireland</td>
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</tr>
<tr>
<td>Scotland</td>
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</tr>
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<td>South East</td>
<td>153</td>
</tr>
<tr>
<td>South West</td>
<td>87</td>
</tr>
<tr>
<td>Wales</td>
<td>51</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
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<td>Unspecified</td>
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<table>
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<th>US Location</th>
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<td>Northeast</td>
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<tr>
<td>South</td>
<td>312</td>
</tr>
<tr>
<td>West</td>
<td>224</td>
</tr>
<tr>
<td>Unspecified</td>
<td>90</td>
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</tbody>
</table>
DOCTORS

We invited doctors with a range of specialisms to take part in the survey in both the UK and US. We excluded those with less than three years’ experience as we wanted to ensure that those taking part had enough experience to feel able to respond generally as well as specifically.

Surveyed doctor experience in years

![Surveyed doctor experience in years](image)

Primary medical specialism of surveyed doctors

![Primary medical specialism of surveyed doctors](image)
## Survey areas

<table>
<thead>
<tr>
<th></th>
<th>Survey areas</th>
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<tr>
<td>1.</td>
<td>Patient trust</td>
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<td>2.</td>
<td>Patient influence</td>
<td>17</td>
</tr>
<tr>
<td>3.</td>
<td>Patient confidence</td>
<td>22</td>
</tr>
<tr>
<td>4.</td>
<td>Patient concerns</td>
<td>26</td>
</tr>
<tr>
<td>5.</td>
<td>The role of medical devices</td>
<td>30</td>
</tr>
<tr>
<td>6.</td>
<td>Healthcare in 2030</td>
<td>33</td>
</tr>
</tbody>
</table>

Appendix 39

All results in this report combine the findings from both the US and UK unless otherwise stated.
1. Patient trust

We asked both patients and doctors about who patients trusted when it came to their health. Patient experiences of healthcare depend on so many people who prescribe, treat and make decisions on their behalf, so we wanted to find out who they trusted and how much.

In both the UK and US we asked whether they trusted the healthcare profession and pharmaceutical industry. In the UK we asked about their trust in the Government, and in the US we asked about the trust they placed on their insurance provider.

— Key findings

01 Patients in the UK and US trust the healthcare profession and the pharmaceutical industry when it comes to their health.

02 Whilst general polls such as the Harris Poll suggest that consumer trust in the pharmaceutical industry is low, the opinion of patients suffering from long-term medical condition is dramatically different.

03 In the US, patients largely trust their insurance providers. US doctors expected patients to say the opposite.

04 In the UK, two-thirds of patients do not trust the Government when it comes to their health.

05 Both UK and US based doctors expected patients to have less trust in their profession, in US insurance providers and in the pharmaceutical industry. UK doctors expected patients to have more trust in the Government.

06 Nearly three-quarters of patients were happy to share their personal health data with doctors other than their own, while nearly half were happy to share their data with other patients. Only a quarter were happy to share their data with the pharmaceutical industry.

07 Two-thirds of doctors and half of patients feel that the pharmaceutical industry has a good understanding of patients.

08 Patients overwhelmingly feel that doctors understand their needs, concerns and conditions.
Results

PATIENT TRUST IN THE HEALTHCARE PROFESSION

93% of patients trust the healthcare profession either completely or enough.

Surprisingly, doctors feel that their profession isn’t trusted this much (21% said patients do not trust them at all or enough). Another finding suggests that 72% of patients are happy to share their personal health data with doctors other than their own, further supporting the level of trust in the profession.

PATIENT TRUST IN THE PHARMACEUTICAL INDUSTRY

66% of patients in the UK and US trust the pharmaceutical industry completely or enough when it comes to their health.

Doctors felt that this level of patient trust would be lower at 44%. When asked about whether they would share their personal health data with pharmaceutical companies, only 26% said that they would be happy to do this, suggesting that this level of trust is not all encompassing. This level of trust conflicts with the findings of the Harris Poll, which typically scores trust in pharmaceutical companies at 10% of US consumers.
In the US, patients and doctors have vastly different views on the trust placed in the insurance industry when it came to their health.

While doctors felt that only 25% of patients trusted their insurance provider, 66% of patients said they trust their insurance provider either completely or enough.

In the UK, 65% of patients do not trust the Government when it came to their health.

Of the 35% who said that they did trust the Government, 31% of these said they trust them ‘enough’, with only 4% saying they trust the Government ‘completely’.

It is interesting to note that 77.6% of COPD sufferers do not trust the Government, which is much higher than patients with other chronic conditions.
SHARING PERSONAL HEALTH DATA

When it came to sharing their personal health data, the patients surveyed seem comfortable with the idea of sharing their personal health data with doctors and fellow patients but less comfortable with sharing that data with those outside those groups.

By way of comparison, very few patients feel comfortable about sharing their personal health data with technology companies such as Apple, Facebook or Nike.

Who would patients share their personal health data with?

![Bar chart showing patient and doctor responses to who they would share their personal health data with.](Figure 10)

PATIENT UNDERSTANDING FROM THE PHARMACEUTICAL INDUSTRY

Just over half of patients feel that the pharmaceutical industry has a good understanding of the condition and personal needs of patients. 66% of doctors feel that the pharmaceutical companies understand patients either ‘quite well’ or ‘very well’. 15% of patients said ‘I don’t know’.

How well does the pharmaceutical industry understand patients?

![Bar chart showing patient and doctor responses to how well the pharmaceutical industry understands patients.](Figure 11)
Looking at whether those suffering with particular conditions felt that the pharmaceutical industry understood their condition and personal needs, our survey found that 44.7% of those suffering from COPD, 52.9% of those suffering from Parkinson’s disease, 42.1% of those suffering from lupus and 42.5% of those suffering from multiple sclerosis feel that their needs and conditions are not understood by the pharmaceutical industry – higher than the average patient response of 34%.

PATIENT UNDERSTANDING FROM DOCTORS

When it comes to the important relationship between patients and doctors, patients clearly think that doctors understand their condition (89.5% said yes, completely or enough), their personal needs (81.9% said yes, completely or enough), and concerns both about their health (86% said yes, completely or enough) and medicine (87.7% said yes, completely or enough). This strong empathy between patients and doctors is supported via the trust that patients place in the profession.

There are some subtle differences between patients in the UK and US, and there is a greater feeling that US doctors understand their patients’ conditions, needs and concerns compared to their UK counterparts.

Does my doctor understand...

...my condition?  ...my personal needs?  ...my concerns about my health?  ...my concerns about my medicine?

- Yes, either completely or enough
- No, either not enough or not at all

Figure 12
Conclusions

It is good to see that patients broadly trust the pharmaceutical industry, the healthcare profession and US insurance providers. However, it is worth highlighting that a third of patients surveyed do not place complete or enough trust in the pharmaceutical industry and insurance providers, giving room for improvement.

This is a relatively healthy position for the industry to be in, but maintaining this level of patient trust will require continued and further transparency and integrity.

The December 2013 annual Harris Poll (te-am.co/harris13) looked at US consumers’ trust in various industries and found that only 10% of consumers trusted the pharmaceutical industry. The Harris Poll gathers the views of a wide group of US-based consumers (including those with and without an ongoing medical condition), however, it doesn’t focus its attention on the patients that rely on the pharmaceutical industry as much as this survey. As a result, the pharmaceutical industry should take comfort from these results which clearly shows that those taking medicines on a regular basis do see the industry as largely trustworthy.

With a general election taking place in May 2015, the UK Government should be concerned. Two thirds of patients don’t trust the Government when it comes to their health and the clear lack of trust is exposed in our survey. Whether this is because of current austerity cutbacks and healthcare reforms is unclear, but with healthcare likely to play a key role in the 2015 election, political parties need to address the lack of trust amongst those patients who rely on the National Health Service the most.

From our survey it is also clear that patients do not, on the whole, feel comfortable sharing their personal health data with those outside the trusted healthcare profession, with the exception of fellow patients. As Apple and others move more into mobile health (mHealth) it will be interesting to see what impact this has on data protection perceptions. For instance, will patients feel uncomfortable storing and sharing serious health data on apps, beyond just logging exercise and diet data? And who will have access to this data?

“The patients seem to largely trust the pharmaceutical companies, but only just over half think they understand their condition. However, the doctors seem to largely distrust the pharma industry, yet a much bigger majority think that they understand the needs of the patients. Which leads me to ponder what is it that the doctors are mistrusting the pharma industry about? Is it the cost of drugs?”

Charlotte Clark, Senior Consultant, Team Consulting
2. Patient influence

We wanted to better understand how involved patients felt in their healthcare, whether they wanted this to increase and whether more influence is better. We also wanted to see how opinions differed between doctors and patients.

Do doctors feel that patients want to be more or less involved? And how does this match up with what patients are saying? Technological developments could enable patients to take a more active role in their health and with the continued drive towards self-administration of medicine, are patients willing participants in this significant trend?

— Key findings

01 Patients in both the US and UK feel generally involved in their healthcare.

02 61% of US patients feel they have some or lots of influence over medication. In the UK, 59% feel they have no influence over their medication.

03 60% of all patients are happy with their current level of involvement. 20% want a lot more involvement and 20% want some more involvement. Very few wanted less involvement.

04 68% of doctors believe that patients want some or a lot more involvement in their healthcare. They believe that only 29% are happy with their current level of involvement.

05 In 2030, both patients and doctors feel that the healthcare system will be radically different from today. However, when it came to future patient influence and self-management, there is a clear difference of opinion between patients and doctors.

06 When looking at the future of patient influence and comparing it today, it is clear that UK doctors expect to see a radical change taking place over the next 15 years, whereas US doctors expect to see current trends continuing.
Results

PATIENT INVOLVEMENT

In the UK, 51% of patients feel ‘very much involved’ in their healthcare, whereas in the US this figure is far higher at 72%; 43% and 25% of patients in the UK and US respectively feel slightly involved in their healthcare. A relatively small number of respondents in each country don’t feel involved in their healthcare at all.

The opinions of doctors differs somewhat. In the UK, 67% of doctors say that patients are very much involved, 32% slightly involved and just 1% not involved at all. In the US, 63% of doctors feel that patients are very much involved, 36% slightly involved and 1% not involved at all.

How involved do you (or your patients) feel in your healthcare?

![Bar chart showing involvement levels for UK patients, US patients, UK doctors, and US doctors.](image)

When it came to whether they wanted to be more involved in their healthcare, patients are largely happy with their current level of involvement, whereas doctors think that patients want to be slightly more involved.
Comparing: “Patients – do you want to be more involved in your healthcare?” and “Doctors – do patients want to be more involved in their healthcare?”

Patients, on the whole, are happy with their current level of involvement although 50% of those living with type 1 diabetes, lupus, muscular dystrophy and Parkinson’s disease would like to be involved more. However, when the doctors were asked the same question, they felt that the number of patients wanting to be more involved was significantly greater.

This is a very different perspective and as doctors try to encourage their patients to be more involved are they likely to see some resistance?

**PATIENT INFLUENCE OVER MEDICATION**

In the US, 61% of patients feel that they have some or lots of influence over their medication, with 33% feeling like they have none. In the UK, 59% of patients feel they had no influence over recent medication choices with 28% saying they had some.
Looking ahead to the year 2030, doctors in the UK and US differ in how much influence they think patients will have over the medicines they receive.

**What do you expect to change about healthcare in 2030?**

In the UK, 45% of UK doctors feel that by 2030 patients will have a significant influence over the medicines they receive, whereas this figure is just 27% for US doctors.

For patients, there is greater consistency between the UK (18%) and the US (17%) when asked the same question about significant future influence. Over the same time period, 62% of UK doctors and 48% of US doctors believe that patients will take more responsibility for monitoring their health. Again, when looking at patients in the UK and US they are broadly aligned (34% in the UK and 29% in the US).
Conclusions

Although patients clearly feel involved to varying degrees in the healthcare decisions that affect them today, this doesn’t necessarily stretch to influencing the choice of medication. A significant proportion of US patients felt as though they had some or lots of influence over the drugs they were prescribed, but the reverse seems to be true in the UK with around the same number of patients saying that they had no influence, yet they still feel involved.

Given the different healthcare models in these two countries, we expected to see a difference in opinions on influence and involvement, but there is a significant gulf between doctors and patients in both the US and UK regarding the future role of patients. Doctors think that patients don’t feel that involved and want much more, whereas the patients already feel that they are involved somewhat and only a few want this level of involvement to increase.

Doctors feel that in 2030 patients will take more responsibility for monitoring their health and will have a greater influence over medicines but patients didn’t share this point of view. Plus, across both markets the patient responses were broadly consistent whereas doctors in the UK were much more likely to believe this to be the case than their US counterparts.

In the US, patients already feel that they have more involvement and influence. As a result, their views on 2030 suggest a gradual change. However, in the UK influence and involvement are much lower at present. Over the next 15 years, doctors in the UK predict seismic changes will take place.

It is clear that in the near and medium-term future, patients and doctors will have very different views on patient involvement and influence. Whilst for some conditions there is an appetite for more involvement this is not consistent across all patients and doctors need to pay special attention to these differences, rather than assuming all patients want more control over their own healthcare.

“As we move towards 2030 we will see a rise in ‘service-focused’ healthcare. More technically enabled patients will be able to make much more sophisticated judgements about the treatment they want.”

Stella Wooder, Managing Consultant, Team Consulting

“It will be interesting to see if the emergence and widespread use of e-health, wellbeing and fitness apps will influence patients’ views about monitoring their own medical conditions. This may increase the adoption of self-monitoring.”

Peter Matthewson, Head of Electronic Engineering, Team Consulting
3. Patient confidence

In order to reduce costs, there are many in the industry who see patients self-administering more medicines. In theory, this relieves the burden on healthcare systems, professionals and infrastructure but it increases the emotional and physical burden on patients.

We wanted to understand how confident people felt about using different types of drug delivery devices (such as inhalers, injectors or patches).

We’ve conducted many user trials all over the world on behalf of clients and have seen first-hand how patients don’t always use medical devices correctly because the design of the device and its instructions for use present a cognitive or physical challenge that some users cannot meet.

How confident would patients feel about different device types? How much support or training would they like? What format should this support take? And importantly, how does this match doctors’ perspectives?

— Key findings

01 Patients are overly confident when it comes to drug delivery devices and feel that they need minimal training. Doctors disagree and our experience suggests that this level of confidence is greatly misplaced.

02 Overwhelmingly, patients would prefer to be trained directly by a nurse or doctor.

03 Very few patients would like to be trained by mobile app.
Results

**WHAT SUPPORT LEVELS DO PATIENTS NEED?**

It is clear from the figure below that patients are confident of their own abilities when it comes to using medical devices. In most cases they would happily use a device after just one demonstration, with some feeling as though they require no help at all.

However, inhalers, especially Pressurised Metered Dose Inhalers (pMDIs), are frequently used incorrectly by patients despite their significant self-confidence in their ability to pick up an inhaler and use it straight away without any help. The doctors surveyed clearly did not agree with patients.

**Patient opinions on level of support required by drug delivery device type, compared to doctor opinions**

<table>
<thead>
<tr>
<th>Device</th>
<th>No help needed</th>
<th>I need to be shown once</th>
<th>I need to be shown 2 to 4 times</th>
<th>I need to be shown more than 4 times</th>
<th>I don't think I can treat myself</th>
<th>I don't know</th>
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<td><strong>Inhaler</strong></td>
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<td>Patient</td>
<td>41.7%</td>
<td>42.9%</td>
<td>7.3%</td>
<td>1%</td>
<td>0.5%</td>
<td>6.6%</td>
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<td>Doctor</td>
<td>1.4%</td>
<td>38%</td>
<td>53.4%</td>
<td>7.2%</td>
<td>0%</td>
<td>n/a</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Patient</td>
<td>25.6%</td>
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<td>12.9%</td>
<td>1.4%</td>
<td>0.9%</td>
<td>15.4%</td>
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<td>50%</td>
<td>7.7%</td>
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<td><strong>Injector pen</strong></td>
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<tr>
<td>Patient</td>
<td>19.3%</td>
<td>43.7%</td>
<td>17.1%</td>
<td>2.3%</td>
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<td>13.1%</td>
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<tr>
<td>Doctor</td>
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<td>38%</td>
<td>52.9%</td>
<td>9.1%</td>
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<td><strong>Needle and syringe</strong></td>
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<tr>
<td>Patient</td>
<td>17.6%</td>
<td>32.1%</td>
<td>22.4%</td>
<td>5%</td>
<td>11%</td>
<td>11.9%</td>
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<tr>
<td>Doctor</td>
<td>0.5%</td>
<td>24%</td>
<td>55.3%</td>
<td>19.2%</td>
<td>1%</td>
<td>n/a</td>
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<td><strong>Wearable pump</strong></td>
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<td></td>
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<tr>
<td>Patient</td>
<td>11.4%</td>
<td>37.7%</td>
<td>22.9%</td>
<td>4.3%</td>
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<td>39.4%</td>
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<td>Patient</td>
<td>88.4%</td>
<td>7.2%</td>
<td>1%</td>
<td>0.5%</td>
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<td>2.5%</td>
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<td>Doctor</td>
<td>74.5%</td>
<td>17.3%</td>
<td>7.2%</td>
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<td>n/a</td>
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<tr>
<td>Patient</td>
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<td>35.8%</td>
<td>2.8%</td>
<td>0.7%</td>
<td>0.4%</td>
<td>8%</td>
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<tr>
<td>Doctor</td>
<td>21.6%</td>
<td>60.6%</td>
<td>16.4%</td>
<td>1.4%</td>
<td>0%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Figure 17
It is interesting to compare this level of patient confidence with the opinions of specialist doctors who are far less confident in their patients’ ability to quickly understand new medical devices.

Typically, they feel that patients require between two and four ‘sessions’ to be competent with each device type. With a needle and syringe and wearable pump, some doctors are even leaning towards more than four familiarisation sessions.

Further interesting findings; 11% of patients don’t think they can treat themselves with a needle and syringe at all, and 21% of patients are unsure when it comes to wearable pumps. This may be down to the low number of pumps used in the market and a lack of familiarisation with these platforms.

Patient training method preference

Patients overwhelmingly (86%) prefer to learn how to take their medicine from a doctor or nurse directly. The second most preferred method is via paper-based instructions, but only by just 7% of patients.

Despite the availability of smartphones, patients do not want to use a mobile app when learning to use a new drug delivery device, with the exception of those suffering from type 1 diabetes; 12% of these patients are open to using an app, but this option is still far behind the preference for personal instruction.
Conclusions

Patient ability, anxiety and confidence play a pivotal role in whether a medicine can be successfully delivered via a device. The patients who took part in our research expressed a worrying level of confidence when it came to using different types of drug delivery devices, especially when considering the opinions of doctors.

These findings match with our years of experience, which tells us that patients have a misplaced level of confidence when it comes to medical devices. This is a challenge for the industry as many patients may not be aware of their poor proficiency and worse still, the drugs may not be delivered at all.

It is also clear that patients prefer to be shown in person how to use a new device rather than use paper-based instructions, online tutorials and mobile apps. With shrinking bandwidth and growing cost pressures on healthcare professionals how can we ensure patients get the amount of training they need (not just what they think they need) and in the format that will help them the most?

“I find the patient confidence levels very interesting, and a little alarming. Correct procedure of use for a drug delivery device is rarely intuitive. Instructions for use often resemble risk management documentation, full of lists of Do’s and Don’ts. We need to improve both if patients are going to be able to rise to the challenge of increasing self-administration.”

Diane Aston-James, Managing Consultant, Team Consulting

“Each individual starting treatment will experience a unique mix of both practical and perceptual barriers that will influence their engagement with the medicine or device. Patients’ capacity and ability (practical barriers) must be understood in parallel with their attitudes and motivation (perceptual barriers). Only then can training and support be offered that truly meets the needs of the patient.”

Andrew Martello, CEO, Spoonful of Sugar

“Whilst a mobile app can never replace the experience of interacting with a real person, we shouldn’t overlook the opportunities that interactive apps may give us. Will acceptance of this training media change as people inevitably become more ‘digitally literate’ and have real experience of using well-designed training apps? After all, 15 years ago there were no smartphones and even two years ago many people wouldn’t imagine doing their banking or grocery shopping via an app.

Paul Greenhalgh, Director of Design, Team Consulting
4. Patient concerns

We wanted to understand the issues and concerns that patients had regarding their medicines and to see if there were any interesting differences by condition.

— Key findings

Each condition has a unique patient concern profile. However, what is clear is that concerns regarding the long-term efficacy and side effects of medication top the list across each chronic condition, with the added concern - in the US - over costs.

01 In the UK, nearly 50% of respondents had no concerns over their medication whereas this figure was 40% in the US.

02

— Results

TOP HEALTHCARE CONCERNS

A significant number of patients have no concerns over their medication (50% in the UK, 40% in the US). However, there are some common issues regarding the long-term effect, side effects and cost (in the US).

Over the following few pages we’ve analysed the data based on location and chronic condition. Individual figures for each condition can be found in the appendix.
## The top three concerns of US patients

<table>
<thead>
<tr>
<th>Condition</th>
<th>Concern 1</th>
<th>Concern 2</th>
<th>Concern 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acne</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>I may become too dependent on it</td>
</tr>
<tr>
<td>Arthritis</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>It is not as effective as I need it to be</td>
</tr>
<tr>
<td>Asthma</td>
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</tr>
<tr>
<td>Cancer</td>
<td>The cost of medication</td>
<td>Long-term use may be harmful to me</td>
<td>It has unpleasant side effects</td>
</tr>
<tr>
<td>COPD</td>
<td>The cost of medication</td>
<td>Long-term use may be harmful to me</td>
<td>It is not as effective as I need it to be</td>
</tr>
<tr>
<td>Diabetes type 1</td>
<td>It has a disruptive effect on my lifestyle</td>
<td>How often I have to take it</td>
<td></td>
</tr>
<tr>
<td>Diabetes type 2</td>
<td>The cost of medication</td>
<td>Long-term use may be harmful to me</td>
<td>It is not as effective as I need it to be</td>
</tr>
<tr>
<td>GERD/Acid reflux</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>It is not as effective as I need it to be</td>
</tr>
<tr>
<td>Heart condition</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>It has unpleasant side effects</td>
</tr>
<tr>
<td>Lupus</td>
<td>It has unpleasant side effects</td>
<td>The cost of medication</td>
<td></td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>It is not as effective as I need it to be</td>
</tr>
<tr>
<td>Muscular dystrophy</td>
<td>The cost of medication</td>
<td>Long-term use may be harmful to me</td>
<td>It is not as effective as I need it to be; It has a disruptive effect on my lifestyle; I may become too dependent on it</td>
</tr>
<tr>
<td>Parkinson's disease</td>
<td>The cost of medication</td>
<td>I may become too dependent on it</td>
<td>It has unpleasant side effects; It has a disruptive effect on my lifestyle</td>
</tr>
<tr>
<td>Psoriasis</td>
<td>Long-term use may be harmful to me</td>
<td>The cost of medication</td>
<td>How often I have to take it</td>
</tr>
<tr>
<td>Ulcerative colitis</td>
<td>The cost of medication</td>
<td>Long-term use may be harmful to me</td>
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</table>

Figure 19
## The top three concerns of UK patients

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<td><strong>Diabetes type 1</strong></td>
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<td>Long-term use may be harmful to me; How often I have to take it; Taking my medicine involves pain or discomfort</td>
<td></td>
</tr>
<tr>
<td><strong>Diabetes type 2</strong></td>
<td>Long-term use may be harmful to me</td>
<td>It has unpleasant side effects</td>
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Conclusions

We all want to improve adherence to medication, however it is a complex and multi-variable issue as highlighted by the different responses of patients with each condition. The drivers which cause patients to ignore medical advice regarding their medication differ by condition, the dosing regimen, the drug itself, the delivery route, the patient’s perceptions, the patient’s socio-economic status and the healthcare system.

There is no silver bullet, and more research needs to be done in this area to explore patients’ perceptions towards medication to understand the intricacies of being adherent, particularly for complex dosing regimens.

“Patients with chronic conditions have concerns about the long-term effects of treatment and managing side effects of drugs. Patient adherence to treatment regimens will be increasingly driven by the patient considering the benefits versus risks of prescribed medicines.”

Stella Wooder, Managing Consultant, Team Consulting

“These findings are supported by the Aston Medication Adherence Study (AMAS), which refers to therapy related and socio-economic factors as leading contributors to non-adherence. Our survey results highlight the need for pharmaceutical companies to develop new medications with better control and management of side effects if adherence behaviours are expected to improve in the future.”

Thomas Grant, Human Factors Engineer, Team Consulting

“Many patients have concerns around taking medication and these beliefs, whilst often erroneous at times, are directly linked to non-adherence in long-term conditions. These perceptual barriers must be understood and addressed at an individual level to reduce the risk of sub-optimal health outcomes.”

Andrew Martello, CEO, Spoonful of Sugar
5. The role of medical devices

As medical device designers, we wanted to ask doctors how they viewed the importance of the medical devices that they prescribed to patients.

— Key findings

01 The delivery device is important to doctors when prescribing new medication across all specialisms surveyed.

02 Nearly 40% of oncologists do not feel that the device is important while nearly 25% said that the device was a key factor.

03 Over 80% of pulmonologists and endocrinologists feel that the device is important or is a key factor.
THE IMPORTANCE OF THE MEDICAL DEVICE

For all doctors surveyed, the delivery device is important. For pulmonologists, endocrinologists, gastroenterologists and those specialising in general internal medicine, the device is particularly important during prescription.

Many pulmonologists, endocrinologists, oncologists and cardiologists also said that the delivery device is a key factor when making a decision for a patient.

A doctor’s view on the importance of the medical device

![Figure 21](image-url)
Conclusions

The delivery device is the ‘drug-to-patient’ interface. In sectors with significant competition between medicines, the drug delivery device can be a differentiator if it offers patients convenience and ease of use. For doctors, it is important in the prescribing decision and its importance increases with certain conditions.

As explained earlier in this report, there is a drive to see patients treat themselves more. Unless it is an oral tablet, this will involve using a physical medical device (such as an injector or inhaler); such devices require a lot of training and support but are seen as important to the doctors who are prescribing medicines with new drug delivery devices.

As pharmaceutical companies face increasing levels of competition from ‘generic’ pharmaceutical companies, the device is emerging as a key battleground where there is an opportunity to offer prescribing doctors a medical device that helps their patients to help themselves.

“What excites me about the next 15 years are the opportunities offered by readily available technology developed for the mobile communications industry. Ten years ago adding a digital dose counter to a device was considered to be high risk and monitoring compliance with devices required a lot of bespoke electronics, docking stations or a physical connection connected to a PC. The barrier to achieving connected medical devices, whilst still very real, is now lower as we can piggy back on the technology that has already been developed for smartphones and tablets. I’m hoping to see a few mavericks in the industry pushing the boundaries of what’s possible within the existing regulatory framework so it will open the floodgates to others who want to embrace the benefits offered to improve interaction, monitoring and engagement with these life enhancing products.”

Paul Greenhalgh, Director of Design, Team Consulting
6. Healthcare in 2030

Given the amount of time it takes for a new drug to be discovered, and a device to be designed and approved, we want to focus on the future. Not 2100 and flying cars, but a future in which the decisions we make today will have an impact.

As we are nearly 15 years into the 21st century, we wanted to take this as a half-way point and look ahead to 2030. We wanted to understand how patients and doctors felt about the next 15 years and what they thought would change.

— Key findings

01 Doctors and patients feel that healthcare systems will be radically different from today.

02 More time will be spent detecting disease earlier, according to doctors and some patients.

03 Doctors agree that medicines and medical devices will be personalised to individual patients, although patients do not agree by the same amount.

04 Doctors and patients both agree that patients will take more responsibility for monitoring and managing their health.

05 Very few patients or doctors felt that medicines would be really cheap or that disease would be a thing of the past.

06 Doctors are polarised on whether healthcare in 2030 makes them feel excited or concerned.

07 Doctors in the UK and US believe that patients will have considerably more influence over their medication than they do today. However, not as many patients are convinced.
Results

LOOKING FORWARD TO HEALTHCARE IN 2030

By the year 2030, over 50% of both patients and doctors believe that the healthcare system will be radically different to the system of today. Among doctors who’ve been in practice for between three and six years, a higher proportion believe this statement will come true.

Patients: Regarding healthcare, what do you believe will happen by 2030? (Shown by age category)

More time will be spent detecting diseases, rather than just treating them

Medicines and medical devices will be designed specifically for me and my condition

The healthcare system will be completely different compared to today

Disease will become a thing of the past

Medicine will become really cheap

I will have a strong say over the medicines I receive

I will take more responsibility for monitoring and managing my health

I don’t know

None of these

Figure 22
Doctors: what do you believe will happen by 2030? (Categorised by years’ experience)

Interestingly, doctors with between three and six years’ experience are much less likely to believe that patients will take more responsibility for monitoring their own health. However, patients aged between 18 and 24 expect more strongly that they will take more responsibility for their monitoring their health.

Both patients and doctors do not believe that medicines will become really cheap.

Patients do not overwhelmingly believe that they will have more influence over the medication they receive.

Patients do not believe that disease will become a thing of the past but a sizeable number do believe that more time will be spent diagnosing diseases earlier, rather than just treating them. This belief is matched by the doctors surveyed.
Patients aged between 18 and 34 believe that medicines and medical devices will be personalised to them in 2030, a point that the doctors agreed with.

Do doctors feel excited or concerned about healthcare in 2030?

![Bar chart showing the feelings of doctors towards healthcare in 2030, categorised by experience level.](image)

The doctors in our survey are split between being excited about the future (37% overall) and concerned (40% overall) over what may happen. Those with less than 16 years’ experience, however, tended to be slightly more excited about the future.

Doctors feelings towards healthcare in 2030 (categorised by experience level)

![Bar chart showing the feelings of doctors towards healthcare in 2030, categorised by experience level.](image)
— Conclusions

It isn’t surprising to find that doctors are concerned about the future, given the fact that whatever changes take place between now and 2030, they will undoubtedly have a huge impact on the people at the forefront of healthcare.

It is interesting to see that despite these concerns and the radical changes they expect to see, a significant number are still excited about what the next decade and a half will bring.

For all the scenarios we presented, doctors and patients believed these would happen (although the patients weren’t as confident) apart from the cost of healthcare, which neither believed would reduce. Patients were also asked whether they thought disease would be a thing of the past and only a few believed that this would be the case.

What we can conclude is that doctors and patients see healthcare becoming more complex and more costly, with a blurring of the divide between what the healthcare professionals are expected to do and the role of patients. But at the same time, they see more personalisation, more influence, more involvement and more prevention.

“I’m interested to see the effect that the continued rise in generics and biosimilars will have on the future of healthcare. I believe differentiation and adding value will become ever more important in a crowded market place even where the core product and administration method must be equivalent. And this will be a good thing for both patients and healthcare professionals. My prediction is that the winners will be the companies that really embrace user experience and go the extra mile to design medical devices and drugs that meet the practical, emotional and lifestyle needs of their users groups and the medical professionals that prescribe the products.”

Paul Greenhalgh, Director of Design, Team Consulting
“Personalisation from a device standpoint is generally intended to encourage adherence and help increase market acceptance of the therapy. We’re already seeing a trend, whereby one size doesn’t necessarily fit all, and a drug product is being presented in a number of different delivery devices. Therapeutically they may be identical, however, the different devices may elicit polarising responses from patients. This is most prominent in the field of self-injection where patients’ attitudes to self-injection is driving drug companies to offer greater choice. Some confident patients may place emphasis on control and visibility of their injection device. Yet for other more needle phobic patients this could be completely inappropriate and a wearable injector that automates many of the functions and hides the needle would be much more suitable. In the next 15 years I think it’s likely we’ll see more companies creating broader portfolios of devices that better meet the needs of specific subsets of their patient population.”

John Burke, Senior Consultant, Team Consulting
Appendix
The concerns of US patients by condition (1 of 4)

The patients were asked to select as many concerns as were relevant to them.

- It is not as effective as I need it to be
- Taking my medicine involves pain or discomfort
- It has unpleasant side effects
- How often I have to take it
- It has a disruptive effect on my lifestyle
- The cost of medication
- I may become too dependent on it
- Other (please specify)
- Long-term use may be harmful to me
- I have no concerns about the medicine I am receiving

### All conditions

- **Arthritis**
- **Asthma**
- **Cancer**

Team Consulting | Patient and doctor perspectives
Appendix
The concerns of US patients by condition (2 of 4)

- COPD:
  - It is not as effective as I need it to be
  - It has unpleasant side effects
  - It has a disruptive effect on my lifestyle
  - How often I have to take it
  - I may become too dependent on it
  - The cost of medication
  - Long-term use may be harmful to me
  - Taking my medicine involves pain or discomfort
  - Other (please specify)
  - I have no concerns about the medicine I am receiving

- Diabetes type 1:

- Diabetes type 2:

- GERD/acid reflux:
The concerns of US patients by condition (3 of 4)

- It is not as effective as I need it to be
- It has unpleasant side effects
- It has a disruptive effect on my lifestyle
- I may become too dependent on it
- Long-term use may be harmful to me
- Taking my medicine involves pain or discomfort
- How often I have to take it
- The cost of medication
- Other (please specify)
- I have no concerns about the medicine I am receiving

Heart condition

Lupus

Multiple sclerosis

Muscular dystrophy
The concerns of US patients by condition (4 of 4)

- It is not as effective as I need it to be
- It has unpleasant side effects
- It has a disruptive effect on my lifestyle
- I may become too dependent on it
- Long-term use may be harmful to me
- Taking my medicine involves pain or discomfort
- How often I have to take it
- The cost of medication
- Other (please specify)
- I have no concerns about the medicine I am receiving

**Figure 26**

**Parkinson’s disease**

**Psoriasis**

**Ulcerative colitis**
The concerns of UK patients by condition (1 of 4)
The patients were asked to select as many concerns as were relevant to them.

- It is not as effective as I need it to be
- It has unpleasant side effects
- It has a disruptive effect on my lifestyle
- I may become too dependent on it
- Long-term use may be harmful to me
- Taking my medicine involves pain or discomfort
- How often I have to take it
- Other (please specify)
- I have no concerns about the medicine I am receiving

**All conditions**

**Arthritis**

**Asthma**

**Cancer**
The concerns of UK patients by condition (2 of 4)

- It is not as effective as I need it to be
- It has unpleasant side effects
- It has a disruptive effect on my lifestyle
- I may become too dependent on it
- Long-term use may be harmful to me
- Taking my medicine involves pain or discomfort
- How often I have to take it
- Other (please specify)
- I have no concerns about the medicine I am receiving

COPD

Diabetes type 1

Diabetes type 2

GERD/acid reflux
The concerns of UK patients by condition (3 of 4)

- It is not as effective as I need it to be
- It has unpleasant side effects
- It has a disruptive effect on my lifestyle
- I may become too dependent on it
- Long-term use may be harmful to me
- Taking my medicine involves pain or discomfort
- How often I have to take it
- Other (please specify)
- I have no concerns about the medicine I am receiving

Heart condition

Lupus

Multiple sclerosis

Muscular dystrophy
The concerns of UK patients by condition (4 of 4)

- It is not as effective as I need it to be
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![Bar charts showing concerns of UK patients by condition](image-url)

Figure 27
Let’s make things better