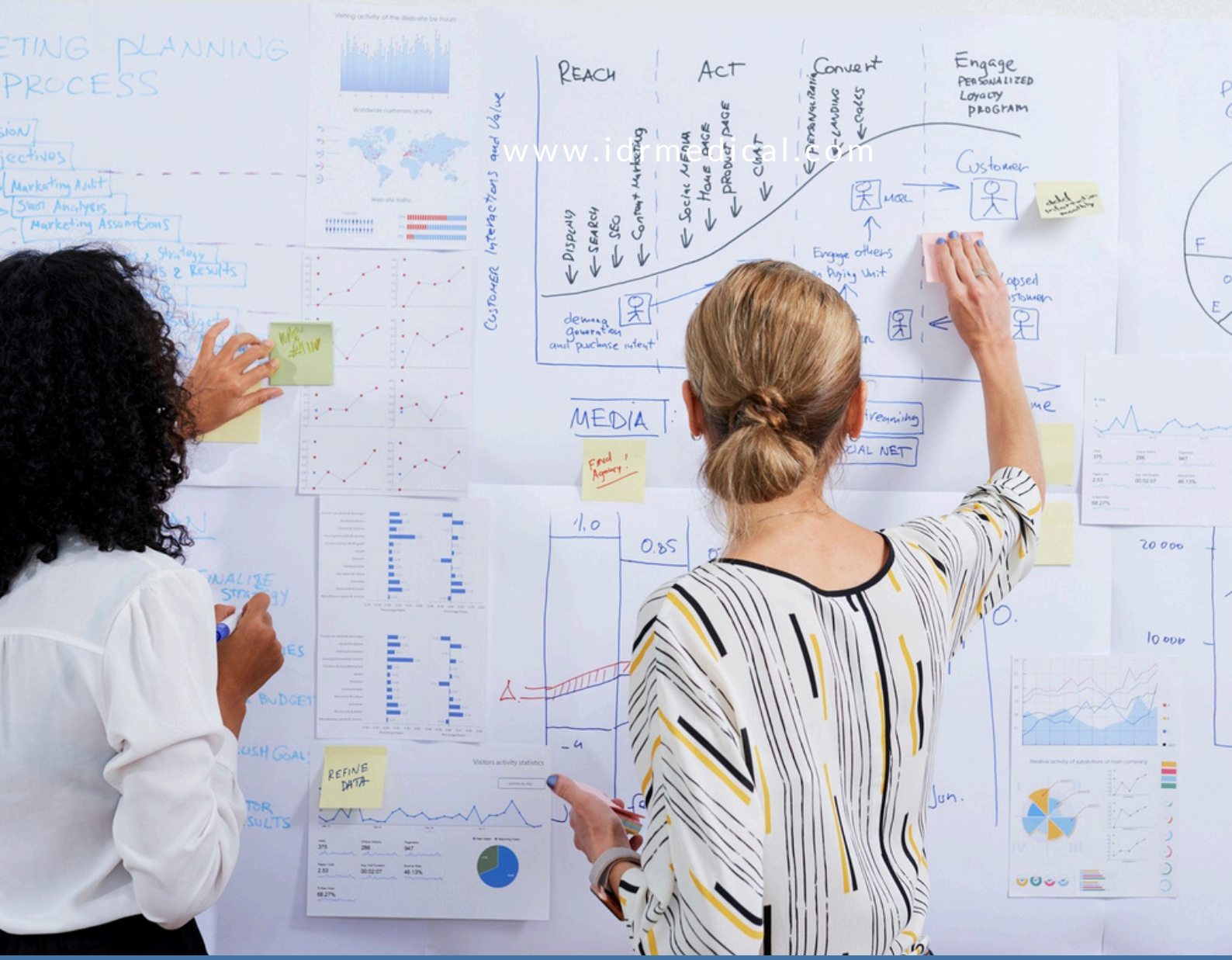
IDR Medical's Guide to

Unmet Need Analysis



IDR Medical

www.idrmedical.com

Welcome to IDR Medical's Guide to Unmet Need Analysis in medical device markets.

We know that conducting market research studies to explore unmet need can be quite a challenge. There are a host of complex issues and hurdles to overcome.
With over 10 years' experience carrying out healthcare market research and consulting, we have built a wealth of knowledge when it comes to unmet need analysis and we are pleased to share our knowledge and experience with you.

We hope that this guide will help you to identify unmet needs for your medical device portfolio and conduct market research with greater success.

Planning

As part of the planning process for your unmet need analysis project, IDR Medical recommends that you complete the following tasks that will help refine your objectives and frame the design of your study.

Align on the objective and scope

This can be a challenge, particularly where you have multiple stakeholders. It is critical that the technical, geographic and clinical scope of the project is clearly defined and that your project team are aligned on this. Defining the scope of the project can be

difficult, as often the unmet needs you are searching for cannot be defined and should not be limited by a product category or market segment. They may, for example be associated with a specific clinician workflow or stage of the patient journey.

Understand who your customer stakeholders are

Identify all customer touch points that are relevant to the scope of your project and don't focus solely on key users or your main customers. In medical technology markets we often need to consider both clinical (e.g. Physicians, Surgeons, Nurses etc.) and non-clinical (e.g. Biomedical Engineers, Technicians, IT) personnel and how their role and influence differs by country, which can be significant.

Understand the competitive environment

The next step is to understand which products, services and solutions your customers are already using. What are their existing technology touch points and how are these helping solve customer problems? Developing a matrix of competitor solutions versus your own portfolio will help you start to think about potential gaps in the market and develop some hypotheses.

Talk to your team

Sales, product management, research and development and customer service teams can be a valuable source of information when planning an unmet needs project. Understand their perception of the challenges customers are facing, the strengths and weaknesses of competitor solutions and what they perceive to be the real pain points of their customers.

Align on your current R&D plan

Understanding the unmet needs your innovation projects may uncover is critical. Particularly if an output of the project is to assess/ prioritise these projects based

on a measure of unmet need. Mapping this to the competitor analysis will help you understand potential gaps in your offering.

Considerations for Market Research

The next step is designing your medical device unmet needs market research project. The tips below will help you focus your project to ensure it delivers insights that drive innovation, differentiation and value.

Don't narrow your research to exploring the limitations of incumbent products

When users of medical technology are questioned on unmet needs they tend to focus on the parameters delivered or not delivered by current devices. While this is an important consideration when analysing unmet need, to really drive innovation researchers need to look beyond the limitations of incumbent products.

To do this IDR Medical recommend designing projects that focus more on the jobs or tasks that the product needs to address for each customer stakeholder, and not only the perception of where current technologies are falling short.

These tasks could be very practical and focused on the use of the medical device itself, for example:
"The product needs to stabilise the patient as quickly as possible when they are in the ICU." Or "The product needs to facilitate patient mobility."

They may also be emotional, for example:
"The product needs to give me the confidence that the settings I changed have been implemented."
Designing a project in this way helps you uncover unmet need unconstrained by the boundaries of incumbent technology and helps you understand how you can help your customers better achieve their goals.

Understand that unmet needs are not obvious

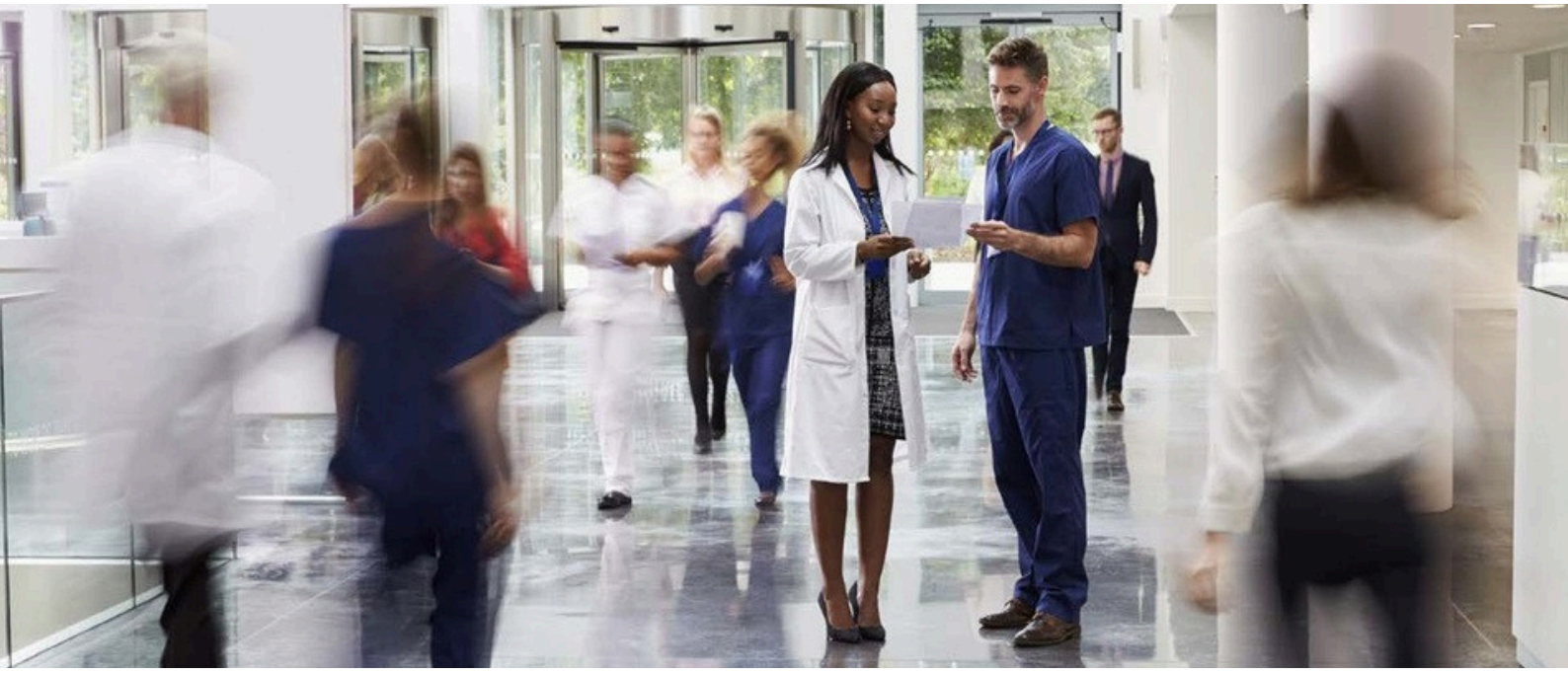
Trying to uncover what frustrates someone about a product is difficult. People initially won't be able to tell you what they think is wrong with a product. You need to probe on their answers and get them thinking. Quite often people using products on a daily basis will be used to the problems and will have their own methods they have adopted to avoid issues. The issue is no longer a problem to them, but solutions may disrupt the workflow affecting productivity.

Focus on early adopters and users of the latest generation of technology

When thinking about respondent sample, market researchers typically want to specify a research sample that "reflects the market." When exploring unmet need this is not always optimal. It is often more beneficial to target a specific group of customers who represent what the market will look like in the future. For example, those that have adopted the latest generation of technology, or those that are using new procedures

or new methods that are changing the way patients are managed. Ultimately, this ensures that the unmet needs identified in your project are not addressed by products or services already on the market.

In order to avoid this problem, and as input to the recruitment process, IDR Medical often recommend screening out late adopter respondents, particularly where the introduction of a new technology clearly represents a path that the rest of the market will take, or a disruptive technology that has changed how patients are managed or how workflows are executed.



Choose the right research environment

Various market research environments can be used to gather unmet need insights. IDR Medical typically utilise 4 different types of research environment. The optimal environment is selected depending on the project budget, type of device, the care setting in which the device is used and the importance of the context in which it is used. Each approach has its advantages and disadvantages.

1. Onsite audits/ ethnographic research:

An approach where research is conducted onsite at the respondent's place of work. This enables the researcher to observe real workflows and respondent's day-to-day interaction with medical technology. The advantage of this approach is that we are

seeing the device or technology being used in context of it's real world setting. The disadvantages are that this method does not lend itself well to video capture and it can be challenging to gain respondent and institutional (e.g. hospital/ clinic) approval to conduct the research onsite.

2. Clinical simulation centers:

These venues replicate the actual clinical environment and provide opportunity to simulate complex workflows. Conducting market research in clinical simulation centers is particularly useful when evaluating devices used in high acuity care areas of the hospital, like the ICU, OR and ER, where on site audits and ethnographic studies are not possible or appropriate.

3. Standard market research viewing facility:

Most of our unmet need, qualitative research projects at IDR Medical are conducted in a standard viewing facility. While this approach does not provide a replica setting, nor does it attempt to mimic the working environment, it does offer a fairly cost effective, convenient approach and opportunity for simultaneous translation, client viewing and video streaming.

4. Telephone interviews (with or without web conferencing): Sometimes this approach makes the most sense and not just from a cost perspective. If there is no requirement for observational/ethnographic research and there is no need for the participant to physically interact with technology a telephone approach may suffice well.

Use workflow analysis to map pain points in a process or task

Workflow analysis can help us uncover unmet needs associated with the execution of a specific task or series of tasks your customers go through when interacting with patients, colleagues and incumbent technology.

The first step is to identify the specific workflow(s) we need to focus on; for example setting a patient up on the medical device, fitting the device to the patient, changing the device settings etc. IDR Medical often creates a map of these workflows with the client upfront, and prior to speaking with any customers.

During the research we ask respondents to talk us through these workflows step by step (using our maps as a guide to the conversation). At each step we identify customer pain points, challenges, bottlenecks in the process and tasks that could be eliminated in an "ideal world."

Using research techniques from human factors engineering to uncover real pain points

Integrating human factors science into the exploration of unmet need can help us identify unmet need that may be implicit in the users' minds. We can do this through Contextual Observation. Not to be confused with traditional ethnographic research. Here the researcher/interviewer shadows the user as they interact with the device or complete a series of tasks. The "user" could be anyone from a patient administering a self-injection of insulin to a respiratory therapist setting up a critical care ventilator in an ICU.

The interviewer's role is to elicit information by asking a series of questions about what is happening; why it is happening and their opinions on how things could be improved. Contextual Observation ensures that the industrial design team and the user work together to discover important information that may be implicit in the users' mind but may otherwise remain undiscovered. To find out more about Unmet

Need Analysis in medical device markets please
contact our team for a free consultation to discuss your project needs.