

# Incorporating Voluntary Patient Preference Information over the Total Product Life Cycle, Final Guidance

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## Slide 1

Hello and thank you for watching this CDRH Learn module on the final guidance titled Incorporating Voluntary Patient Preference Information over the Total Product Life Cycle. My name is David Gebben and I'm a Health Economist within the Division of Patient Centered Development within the Center for Devices and Radiological Health's Office of Strategic Partnerships and Technology Innovation.

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This final guidance is part of our Medical Device User Fee Amendments, Fiscal Years 2023 Through 2027 or MDUFA V commitment, specifically Section V.E. of the Performance Goals and Procedures section. This guidance provides updated recommendations to industry and FDA staff for designing, collecting, and evaluating patient preference information, referred to as PPI during this presentation, in the context of benefit-risk assessments of medical devices. This includes practical recommendations intended to address common questions for those interested in the voluntary inclusion of PPI for FDA consideration.

## Slide 3

The learning objectives for this module on the final guidance titled Incorporating Voluntary Patient Preference Information over the Total Product Life Cycle are to explain the rationale for why CDRH has incorporated these updates to the 2016 PPI Guidance that this guidance supersedes, to layout the scope of these updates, and describe the modifications.

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CDRH has a history of commitment to advancing PPI methodology and its potential use in the regulatory context as demonstrated by our guidance, research, and partnerships. I will highlight the most relevant points as related to the updates in the final PPI Guidance.

In March 2012 the original benefit-risk guidance was issued. The 2012 Benefit-Risk Guidance was the first to explain that risk tolerance varies for patients, and preferences can shed light on how that variation may be included in the benefit-risk determination.

In 2013, we launched the Patient Preference Initiative where interested parties representing academia, regulators, patients, and the medical device industry gathered to discuss how PPI could be incorporated into the regulatory process, serving as complementary evidence along with data from clinical and nonclinical studies that may be submitted at both pre- and post-market timepoints. This included discussions at a workshop centered on the state of the science of patient preferences and advanced discussions on the methodology and validation considerations relevant to use PPI in a regulatory context. This marked the beginning of a greater focus on the value of PPI in regulatory submissions and highlighted the need to advance the methods.

In January 2015 the obesity device preference study was published. This PPI study was considered in the benefit-risk assessment of the medical device approved to treat obesity in almost a decade. This instance opened the door for future submissions that included PPI as a complement to other forms of scientific evidence by providing a case example for interested parties of how PPI can be used in a regulatory context.

In 2016 CDRH issued our final PPI Guidance. This guidance provided recommendations for conducting high-quality patient preference studies, as well as detailed potential uses for this voluntary information in medical device evaluations.

Since the 2012 Benefit-Risk guidance and 2016 PPI guidance, FDA has issued other guidance documents that mention the usefulness of PPI during benefit-risk determinations for investigational device exemptions, premarket notifications or 510(k), postmarket decisions such as compliance and enforcement decisions, and when assessing the impact of uncertainty during benefit-risk determinations.

CDRH partnered with the International Society for Pharmacoeconomics and Outcomes Research, also known as ISPOR, in September 2020 to jointly host a summit discussing the use of PPI in medical device regulatory benefit-risk determinations and beyond the regulatory context. The summit provided an instructive foundation for PPI where multidisciplinary participants engaged in robust discussions on current PPI methodological issues, and the implementation and application of PPI, and the potential uses of PPI beyond the regulatory arena. Several PPI case studies shared by medical device companies highlighted a variety of uses of patient preference studies created to inform the design of clinical trials and impact the benefit-risk decision.

These moments, in addition to the commitment to update this guidance in MDUFA V, helped build the foundation for why we issued a revised draft guidance in September 2024. After addressing public comments to the draft guidance, we have issued this final PPI guidance. Going forward, CDRH recognizes that PPI is an evolving field. CDRH will continue to maintain its commitment to the potential use of PPI in the regulatory context as demonstrated by our guidance, research, and partnerships.

#### **Slide 5**

The original 2016 CDRH PPI guidance focused on the benefit-risk decision point to support regulatory decisions of marketing submissions. Since that time new guidances have been issued and these guidances have expanded to reflect the total product life cycle. This updated final guidance also reflects additional considerations and practical recommendations of evaluating PPI that resulted from the interactions with sponsors and additional CDRH funded PPI studies. This final guidance also fulfills a MDUFA V commitment.

#### **Slide 6**

Some principles have been maintained from the 2016 version. The definition of patient preference information remains unchanged, and it is still defined “as qualitative or quantitative assessments of the relative desirability or acceptability to patients of specified alternatives or choices among outcomes or other attributes that differ among health interventions.”

#### **Slide 7**

Further this final guidance maintains a focus on PPI research as a patient centered. As such best practices in the survey research would still apply like patient friendly descriptions of options, and a clear, balanced presentation of choice tasks. The expectation that research will be done in line with recommended practices from professional organizations is also maintained.

#### **Slide 8**

We will now turn to the rationale for the updates.

## Slide 9

In 2023, CDRH requested feedback on specific questions to solicit feedback in advance of the PPI Guidance update. In 2024, CDRH issued the update draft PPI guidance. Based on comments, we incorporated many of the suggestions into this final guidance. It was also noted that there were several remarks asking about greater clarity on analysis methods.

## Slide 10

The gaps identified through interactions with sponsors include things like the role that qualitative methods could play, the types of quantitative methods available, and what is considered a fit-for-purpose PPI study. A common question in submissions was about the attributes and attribute levels that should be included. Other questions were related to defining research questions that would be in alignment with FDA regulatory needs.

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It was also noted that there was a request to have greater clarity on what would be helpful to include in a PPI study protocol that is submitted for FDA review. Finally, there was an opportunity to clarify the value of having early interactions with the FDA.

## Slide 12

The final guidance broadens the scope of when PPI could be applicable. As previously mentioned, the 2016 guidance primarily looked at the benefit-risk decision after clinical performance data had been collected and at the point of the marketing submission as the main decision point. This final guidance encompasses the total product life cycle.

Patient preferences may have a role at multiple spots along the total product life cycle. This includes such points as discovery and ideation through invention and prototyping, nonclinical and clinical decisions, and potentially postmarket monitoring. PPI may be considered throughout the TPLC and data may be built upon and may be informative for future development stages.

## Slide 13

These are potential opportunities to use PPI at different phases of the product lifecycle. For instance, during the development PPI methods, such as focus groups, could be used to identify an unmet medical need. During the clinical design phase, if a product has multiple potential endpoints the patient voice can be incorporated using a best worst scaling method to help inform which endpoints are of greatest importance to the patients. During the postmarket phase patient preferences could provide information on how potential unknown risks are viewed by the patient population.

## Slide 14

What are the updates that have been incorporated into the new final guidance? On the following slides we will discuss some of those key changes.

## Slide 15

Perhaps right at the top it should be noted that the new final guidance has a new name to reflect the opportunities CDRH sees to incorporate patient voices through PPI across the total product life cycle. We also responded to the feedback for a large number of practical examples, so we added more examples to this final guidance.

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In response to requests to discuss methods in greater detail, we added an appendix, Appendix B, listing possible methods that could be applicable. We received questions regarding fit-for-purpose, while we maintain the principle of patient centricity in PPI studies from the 2016 guidance, we highlight the importance of the scientific question, discuss the study objectives and the study parameters. All of which contribute to the determination of if a study is fit-for-purpose. Finally, we expanded the final guidance to other places along the TPLC including IDEs and 510(k)s.

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In 2016, there was a more limited number of use-cases for PPI. In the 2016 guidance the primary use case was the obesity study which focused on the benefit-risk decision context after clinical data had been provided. Since that time additional studies have been done including a label expansion and understanding how or what a clinical effectiveness threshold would need to be for a new treatment option. The expanded list of examples, while not meant to be exhaustive of the potential for PPI within a regulatory context, it is meant to show that patient preferences can be used in many stages throughout the total product life cycle. Further, we have maintained the hypothetical examples in the final guidance.

## Slide 18

Throughout the process of reviewing PPI submissions since 2016 a number of sponsors as well as comments submitted to the docket sought greater clarity on what analysis methods would be appropriate for quantitative preference data. To respond to these comments, we incorporated an appendix to identify potential analysis methods. The appendix is not meant to be an exhaustive discussion nor is the appendix meant to be a cookbook for how to do the analysis. CDRH recognizes that analysis methods change and improve through time and the appendix is not meant to be a final word on the analysis methods, rather it is intended to provide a starting point for potential analysis of quantitative preference data.

## Slide 19

Multiple sponsors and comments to the docket requested clarity on what goes into the consideration to determine if a study rises to the level that could be considered “fit -for-purpose.” To that end an additional section IV.I titled “What important factors should sponsors consider when designing a patient preference study to address an FDA decision-making question?” was added. This includes a discussion of considerations related to the scientific question and study objectives and parameters.

Along with that, other considerations are how and where qualitative or quantitative methods could be incorporated; how the indication for use population is reflected within the study population through aspects such as the enrollment criteria and various recruiting methods. If a survey method is used, information on the specific survey design is relevant to be included in the submission. The submission packet should also include a statistical analysis plan.

## Slide 20

Here are other guidance resources I mentioned earlier in the presentation, along with the full URL that you can access after the presentation.

## Slide 21

The updates reflected within this final guidance reflect the state of PPI today and recognizes and reflects the comments from sponsors and other interested parties. The final guidance aligns with more recently published benefit-risk guidances. In particular, the updates are intended to add clarity and fill gaps that were observed in the 2016 PPI guidance. The scope has widened for PPI to the entire TPLC to

encourage the patient voice is heard more clearly and more often throughout the entire TPLC. Finally, this guidance fulfills an explicit MDUFA V commitment.

### **Slide 22**

This module and other learning modules can be found at CDRH Learn via the link provided on this slide.

Other resources available to you that are referred on this slide include Device Advice, for text-based information on premarket and postmarket topics, and the contact information for the Division of Industry and Consumer Education or DICE, whom you may contact for additional information on this or other medical device regulatory topics.

Thanks again for viewing this module.

### **Slide 23**

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