

# Discerning Demand Publication Supplemental

Our review uncovered extensive insights on tool adoption and market access resources. This Supplemental accompanies the Discerning Demand report and offers more detail on:

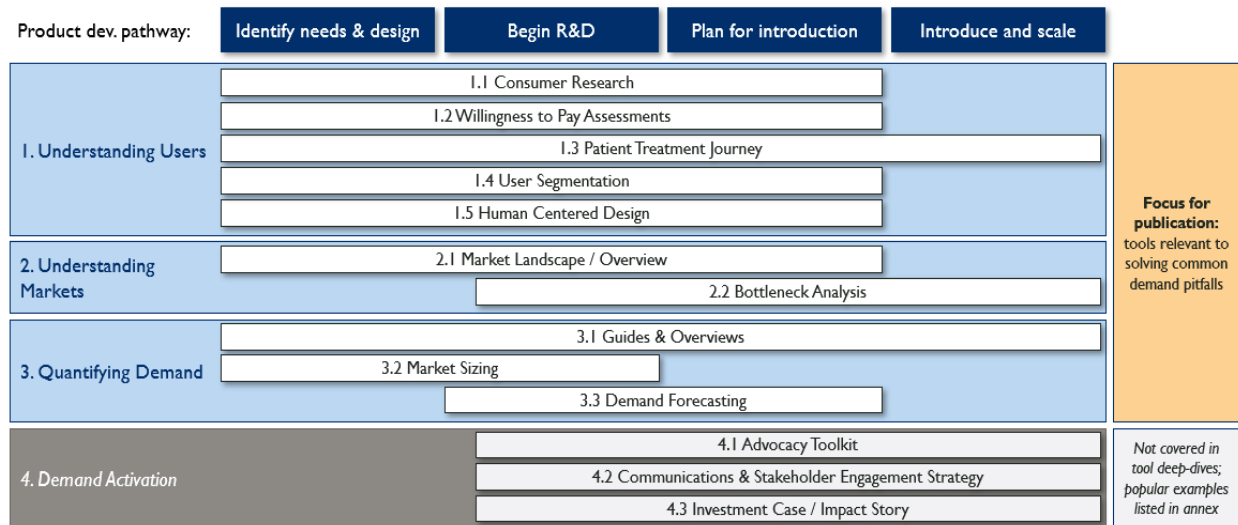
1. [Available tools for assessing demand](#). This section summarizes the results of a landscape review of commonly used quantitative and qualitative approaches for assessing global health product demand. We identified 10 categories of tools and approaches across different stages of the product development pathway and across three objectives: understanding end-users, understanding markets, and quantifying demand.
2. [How to make the most of tools and methods](#). Tools are only as useful as the people, processes, and analytical capacity available to use them. We offer a guide on how convenings can help apply the learnings in the main report. We also provide additional detail on two key approaches: consumer research insights and demand forecasting (See Section 4 in the main report for more context).
3. [Resources for global health product market access](#). This is a rapidly evolving field. We synthesize some of the main resources as of 2023.
4. [Expanded retrospectives](#). The full report could not include all the rich insights from product retrospectives (See Section 2.2 in the main report for highlights). Additional context and stories for the internal condom, NASG, pulse oximeter, and rectal artesunate can be found here.

## 1. Available Tools for Assessing Demand

We conducted a landscape review of approaches commonly used for assessing global health products to provide visibility on existing quantitative and qualitative methods. We identified 10 categories of tools and approaches across different stages of the product development pathway across three objectives: understanding end-users, understanding markets, and quantifying demand.

The value of these different tools should be reviewed on an ongoing basis. Figure 1 below and section 1.1 summarize the tool categories and the rationale for their use at different or overlapping stages in the development process.

**FIGURE 1.**



The value of tool selection and application depends on people, processes, and analytical capacity. More details on how to convene groups to leverage different approaches can be found in [Section 2](#).

## 1.1 Understanding End-Users

Compiling and assessing end-user feedback for new product development is critical to understand product value and potential for impact. We have identified five approaches to better understand end-users: consumer research, willingness-to-pay assessments, patient treatment journey, user segmentation, and human-centered design. Our review includes select examples of tools for each category.

**Consumer Research.** There are many approaches to generating consumer research insights through primary and secondary data analysis. Primary approaches that engage target users are typically more insightful and can be analyzed alongside secondary data (e.g., historical sales or usage data). Three common approaches to generating primary data are discrete-choice experiments, in-depth interviews, and focus groups.

- A. *Discrete-choice experiments* test preferences by asking users to choose between at least two alternatives so as to understand the value of investing in something early in development. These experiments provide quantifiable end-user data on preferences, product modifications, and distribution channels. While this type of research offers trade-off analysis between product attributes, mimics real choice behaviors, and is easy to implement, the downside is an oversimplification of decisions into discrete choices instead of actual uptake or demand.
- B. *In-depth interviews* are discussions with individuals, couples, or families to deep-dive and collect input on consumer experience and behavior with a product. Interviews are

ideal for sensitive or more personal topics, with the unique ability to reach low-prevalence or hard-to-recruit respondents, however, they are also time-consuming and there is a high likelihood of interviewer bias or leading questions.

- C. *Focus groups* facilitate research through moderated discussions with six to eight individuals, generally of the same status group, to provide product feedback in the context of normative, cultural, or social factors. The benefits of these groups include discovering new concepts, exploring consensus or lack thereof, and understanding normative product experience. That being said, this type of research provides limited opportunities for depth due to time constraints, it can be difficult to steer conversations, and there is a susceptibility toward groupthink.

Consumer research is one of the least prioritized methodologies used in global health contexts. However, it offers tremendous potential to target interventions and optimize the use of resources. We suggest product investments ensure funding for consumer research early on in the process, with results potentially used toward milestones that inform decision-making.

Best practices for generating consumer research are provided below to encourage the adoption of this approach. These are not exhaustive but rather targeted practices we believe global health stakeholders can pay more attention to.

*Select the right research tool and methodologies:* Capturing end-user feedback correctly requires selecting the right tool. Tools selection should consider the objective of the research (e.g., level of details required), type of data needed (e.g., quantitative or qualitative), the pros and cons of each method (e.g., requirements for familiarity with the product, actual market share of the product), the cost of conducting the research, the cost of analyzing the data, as well as potential end-users. Often, healthcare workers and caregivers can be end-users of products, along with patients.

*Focus on willingness to pay:* In the context of product choice, costs are often large barriers to uptake. End-user willingness-to-pay needs to be included as a standard part of consumer research with both patients and healthcare providers (e.g., through Becker-DeGroot-Marschak methodology). It is key to clearly articulate the value proposition of the product so users understand what they are paying for (e.g., willingness to pay was low for the internal condom because women perceived it as a family planning device, not an HIV prevention device). It is important to separately consider willingness to pay in the context of how payers perceive the value of the product (if different from the users). This includes public and private payers who might already be paying for similar products and have their own expectations about new products.

*Account for choice:* Understanding demand in multi-product marketplaces is complicated by multiple factors, including new product entries, switching costs, and cannibalization of market share of existing products (i.e., how new products will cannibalize demand from other products). Given these factors, it is sometimes easier to project demand for an entire portfolio of products rather than specific products in the portfolio (e.g., demand for preventive products

for HIV/AIDS as a whole rather than specific demand for one of the prevention products). Further, not all products will serve users at the same point in the user's health journey (e.g., antenatal Oxytocin vs. uterotonics vs. application of NASG for severe PPH).

Choice should be considered routinely with new products compared to existing and emerging products, with attention also paid to products to deprioritize (e.g., moving away from products with lower real-world effectiveness). Often, products are only compared to understand switching costs (moving from one product to the other) but what is needed for increasing uptake for the entire set of products is not evaluated. Important factors to consider with a multi-product marketplace are side effects, price, access, and perception of family/partners/community, to name a few.

*Use real instead of hypothetical or conceptual products in consumer research:* Often, consumer research asks potential users about hypothetical products rather than allowing users to experience real products, causing greater uncertainty in the results. While hypothetical research may be necessary for the early stages of product development, research outcomes should be revisited once users can experience an actual product. Prototypes are necessary (even if mock-ups) to assess lived user experience.

*Rigorously segment end-users:* Traditional user segmentation tends to over-index on demographic attributes such as age and gender that are easy to gather. As a result, key distinguishing factors that drive behavior are overlooked, such as where the user is in their life stage. Human-centered design can identify behavioral drivers for different products (e.g., distress from a partner, side effects, fear)

*Discount consumer responses to account for inflation bias:* Hypothetical answers rarely reflect direct uptake. Consumers tend to overstate their preferences for multiple reasons, including overestimated willingness to pay and desirability bias. Forecasters must account for data inflation due to preference bias. Most data is hypothetical and collected through experiments. A common approach to discount this inflation is to view any "maybe" response to uptake questions as a "no" response.

*Designate funding for consumer research:* Too often there is insufficient funding to complete consumer research. Requested funding for consumer research should be discussed between funders/investors and innovators early on in the product development cycle. Innovators could also benefit from earmarked capital from funders to revise forecasts once better data is available (e.g., after initial introduction).

*Incorporate consumer research results into development milestones:* Funders/innovators should incorporate consumer research planning and execution into standard product development and funding processes. By using consumer research results to inform investment milestones, innovators and funders can help ensure research methods are chosen correctly, leverage best practices/relationships from previous work, and help pressure-check results.

**Willingness-to-Pay Assessments.** Identifying the expected payer and assessing the ideal price or price range that customers are willing to pay for a product is key to evaluating product demand and uptake and is often under-invested in global health. Willingness-to-pay assessments typically review demand at various price points. [Becker-DeGroot-Marschak \(BDM\) methodology](#) is a tool that can facilitate willingness-to-pay assessments.

**Patient Treatment Journey.** A comprehensive understanding of the patient journey for a given product will identify the different steps patients and healthcare providers must take in order to completely use a product, such as services, transportation, and follow-up treatment. The [Immunization Service Experience Toolkit](#) and the [CII Idea to Impact Toolkit: Patient Journey Mapping Tool in the Supplemental Toolkit](#) exemplify this approach. This approach can be applied independently or as part of a human-centered design approach (see below).

**User Segmentation.** Defining the characteristics of different end-users and considering demographic, psychographic, and behavioral driver customer segments can facilitate estimating a rough market size for each. [UNICEF Behavioral Drivers Model](#) is a practical guide to further understanding end-user behavior. The [CII Idea to Impact Toolkit: Market Segmentation Analysis Tool in the Supplemental Toolkit](#) is another reference.

**Human-Centered Design.** A human-centered design approach identifies behavioral drivers and user preferences for product uptake and usage by placing the individuals, populations, and stakeholders being served at the center of the design and implementation process. A standard human-centered design process typically includes user observation, journey mapping, and classification based on interactions, ideation on how to improve or change the product, testing, and iteration. Adopting human-centered design principles in global health is critical to increasing demand and uptake of key products by ensuring the design is appropriate, useful, and acceptable to the desired end-users, and addressing key pain points and challenges. The [Design for Global Health](#) and [HCD4Health](#) resources prepared by USAID, BMGF, and UNICEF provide additional details. The [IDEO Design Kit](#) is a step-by-step guide to human-centered design and [HCD Guide in VMMC](#) is a good example.

## 1.2 Understanding Markets

A thorough understanding of market conditions in LMIC settings is crucial when considering product innovation or preparing for product launches in a global health context. We identified two approaches for better understanding markets: market landscape analysis and bottleneck analysis.

**Market Landscape Analysis.** A market landscape analysis identifies the different drivers of supply and demand, including stakeholder mapping of the regulatory/policy environment, end-users, healthcare providers, manufacturers, distributors, and payers (private or public). Analyses can be global with a focus on a therapy area; these are often commercially available through companies that publish market research reports. Many conducted for global health are

published for free (e.g., [HIV Rapid Diagnostic Self-Test Market Landscape Report](#) or [CHAI's Annual HIV Market Report](#)).

**Bottleneck Analysis.** This method can help identify demand-related barriers in product development, production, and delivery. It defines high-impact challenges. A Barrier Assessment Tool exercise template for customization is available in the [CII Idea to Impact: Step 2.1 in the Supplemental Toolkit](#).

Both of these types of analyses require input from individuals who have vested interests in decisions made about a particular product, otherwise known as key opinion leaders (KOLs). The commercial sector leverages a wide network of industry-specific advisory and consulting companies to gather insights from KOLs, including decision-makers and influencers. There are global, regional, and local companies that exclusively focus on identifying and generating insights from those stakeholders. A disproportionate amount of stakeholder mapping is leveraged for commercial (vs. equity) priorities with a focus on high-income customer segments.

Global health funders and investors can rely on vendors who engage KOLs to benefit product introduction designed for low-resource settings. These vendors are additive to the public health knowledge from implementing partners, given they have an understanding of the full ecosystem specific to product introduction and therefore market forces.

Six key factors can help navigate the search for vendors who can support any type of user research.

Factors	Description
<b>Domain expertise</b>	Certain vendors specialize within specific therapeutic areas or product types (e.g., medical devices). The therapeutic area may also indicate specific factors that vendors need to consider (e.g., the influence of product choice for HIV/family planning).
<b>Target geography</b>	Vendors should be familiar with the target country/region for a product. Products should, to the extent possible, be tested in the geography where they will be implemented. Innovators, funders, and investors should consider whether the research will be applicable to multiple geographies (e.g., can research in LICs be extended to MICs).
<b>Research method</b>	Different vendors will specialize in the various research tools needed to inform a product's development (e.g., surveys, interviews, focus groups, discrete-choice experiments). Innovators, funders, and investors should choose the appropriate tool(s) (see Section 1) and then identify a vendor with relevant experience.
<b>Scale of research</b>	Innovators, funders, and investors should assess both the scale needed to reach their objectives and the feasible scale (i.e., to identify research participants). Vendors should provide an estimate of the resources and

	time required to reach the desired scale; some vendors may be excluded when large sample sizes are needed.
<b>Types of users</b>	Innovators, funders, and investors should determine from which categories of users they need input (e.g., caregivers, patients, HCPs). Users should be logically segmented (e.g., public vs. private HCPs, current vs. potential users). Different vendors may be better equipped to reach specific user populations (e.g., have a relationship with in-country HCPs).
<b>Digital capabilities</b>	Digital capabilities are becoming more integrated into the recruitment for and completion of consumer research in LMICs. Vendors with digital expertise may provide added benefits through new techniques (e.g., social media analyses, A/B testing), larger research populations, and richer analyses/data.

### 1.3 Quantifying Demand

When quantifying demand or conducting market sizing, it is critical to clearly define what is being quantified—unmet need, total addressable market, serviceable available market, or serviceable obtainable market. What is quantified should be informed by objectives and consensus among key stakeholders. Since stakeholders might change over time, so might definitions, underlying assumptions, and methodologies.

We have compiled three types of tools: guides to describe best practices for quantifying demand, market sizing tools, and demand forecasting tools.

**Guides that describe best practices.** Guides are references that describe how to define model objectives and desired outputs, identify and weigh model inputs, refresh models for different purposes, and account for uncertainty. [Forecasting Principles and Practice](#) exemplifies a guide outlining comprehensive forecasting methods in general. Many are specific to a therapy area, for example, [A Forecasting Guide for New & Underused Methods of Family Planning: What to do When There Is No Trend Data](#). [A Risky Business: Saving money and improving health through better demand forecasts](#) provides a comprehensive overview of best practices and principles in demand forecasting and assesses the unequal distribution of risks across different stakeholders.

**Market sizing tools.** Market sizing refers to the total or a portion of the total addressable market for a product.<sup>1</sup> This typically occurs earlier in the product development process alongside other methods such as demand forecasting. A market sizing tool is provided in the [CII Idea to Impact Supplemental Toolkit→1. Marketing and User Understanding →Market Sizing](#).

**Demand forecasting tools.** Forecasting is an analytical process to estimate actual quantities of a product that would be purchased under varying scenarios of uptake within a set timeframe for

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<sup>1</sup> Defined as: An estimation of total market demand if the entire available market for a product or service is achieved.

a defined population and geography. It is one of the most common methods used by funders and implementing partners to signal expected uptake and often informs market shaping interventions (e.g., to reduce price). Forecasts should be fit for purpose, meaning existing tools should be used as examples and references, not as translatable to different products or country contexts. Notable examples include the [USAID Quantification Analytics Tool](#), and the BMGF Demand Forecasting Tool (available for download as part of the [CII Idea to Impact Supplemental Toolkit](#)→2. Manufacturing and Distribution→ Demand Forecasting). Forecasting examples of therapy areas include the [CHAI Simple Tool for antiretroviral treatments](#) and [Forecasting Consumption of Contraceptive Supplies](#).

[Validated Inference of Adoption Likelihood \(VIAL\)](#) is a methodology developed by Dalberg Advisors with support from BMGF to better understand country preferences for different health products. It is an approach that can inform demand forecasting through scenario planning based on analytical techniques that account for uncertainty and options. While primarily deployed in the vaccine space, the approach can be relevant to other areas.

While not covered within the scope of this publication, product introduction launch guides such as [Ready, Set, Launch](#) and [Idea to Impact](#) provide guidance on how to generate demand (e.g., through marketing strategies) for new products. Our review indicates that investing early in the first two objectives we have outlined—consumer research and understanding the LMIC context for a product—will likely decrease later investments needed for activating demand. Nevertheless, even when innovators create products perfectly to meet end-user needs, there will still be a need for targeted investments that raise awareness and interest.

## 2 How to Make the Most of Tools and Methods

### 2.1 Convenings

A series of strategic workshops can help with the adoption of some of the learnings recommended in the full report. The process should be tailored to the context of a specific product and target market(s).

1. Workshop types and potential participants	Types of key workshops and considerations for potential participants
2. Workshop timing	Timing of key workshops along the product development pathway
3. Workshop objectives	Main objective of each workshop along the product development pathway
4. Key questions	Key questions for brainstorming during each workshop



## 1. Workshop types and potential participants

	Strategy development sessions (SDS)	Country strategy sessions (CSS)	Preparedness reviews (PR)
<b>Objective</b>	Align on product-specific, geography-agnostic strategic decisions during product development	Layer on country stakeholder perspectives to develop a geography-specific strategy	Assess intro and scale-up preparedness at global and country levels
<b>Potential participants</b>	<ul style="list-style-type: none"> <li>• Innovator team, including clinical, development, regulatory, and market access functions</li> <li>• Funders/investors</li> <li>• Expected buyers/payers</li> <li>• Representatives of potential programs</li> <li>• Representatives of regulatory bodies, government decision-makers, providers, and end-users</li> </ul>	SDS team and country-specific representatives from <ul style="list-style-type: none"> <li>• Implementing partners</li> <li>• Regulatory bodies, government decision-makers, providers, and end-users</li> <li>• Leading academics and key opinion leaders</li> </ul>	SDS team as well as: <ul style="list-style-type: none"> <li>• Implementing partners</li> <li>• Manufacturers (if relevant)</li> </ul>

## 2. Workshop timing



## 3. Workshop objectives

<b>SDS #1</b>	Articulate product strategy, align on target product profile, define a plan to show clinical, economic, and operational value
<b>SDS #2</b>	Align on target user segments, revenue and budget forecast, and operational plan
<b>SDS #3</b>	Articulate refined product strategy and key success factors, define country sequencing plan

<b>SDS #4</b>	Align on market access and pricing strategy, refine advocacy, communication, and stakeholder engagement plan
<b>CSS</b>	Refine introduction and scale-up planning with in-country perspectives
<b>PR #1</b>	Refine product value proposition for all stakeholders, finalize communications, advocacy, and engagement plans
<b>PR #2</b>	Finalize messaging and communications, establish monitoring metrics, define risk management plan

**4. Starting point for key questions to brainstorm during each workshop**

<b>Workshop</b>	<b>Key Questions</b>
<b>SDS #1</b>	<ul style="list-style-type: none"> <li>● What are stakeholders’ unmet needs today?</li> <li>● What is the target product profile (TPP)?</li> <li>● Can we employ strategies that change the game?</li> <li>● What key attributes do we need to effectively position the product?</li> <li>● What clinical endpoints are needed to achieve the TPP?</li> <li>● What studies and research will we need to prove product value to expected buyers/payers and other decision-makers?</li> </ul>
<b>SDS #2</b>	<ul style="list-style-type: none"> <li>● What are our user segment(s)?</li> <li>● What are the patient journey and healthcare worker workflows?</li> <li>● What is the size of our potential addressable market?</li> <li>● What is our unconstrained forecast for demand?</li> <li>● What are the expected buyers/payers' willingness and ability to pay?</li> <li>● What manufacturing/supply model will we use?</li> <li>● What key partnerships are needed to support product introduction and scale-up?</li> </ul>
<b>SDS #3</b>	<ul style="list-style-type: none"> <li>● What is the clinical, economic, and operational value of our product?</li> <li>● What elements of the intro and scale-up strategy will be most critical for success?</li> <li>● Which countries will we prioritize? How will we sequence introduction across countries?</li> <li>● Which channels will we prioritize? What is our market access strategy?</li> <li>● What are our pre-intro communications, advocacy, and key opinion leader engagement strategies?</li> <li>● What is our strategy for implementation research?</li> </ul>
<b>SDS #4</b>	<ul style="list-style-type: none"> <li>● What is our access strategy across the different channels?</li> <li>● What is our pricing strategy?</li> <li>● What is our national and sub-national introduction strategy?</li> <li>● What are the communications, advocacy, and key opinion leader engagement strategies?</li> <li>● How will we engage with payers and other decision-makers?</li> <li>● What is our patient outreach strategy?</li> </ul>

	<ul style="list-style-type: none"> <li>• How will we engage with providers, community health workers, and other influencers?</li> </ul>
<b>PR #1</b>	<ul style="list-style-type: none"> <li>• What is our refined product value proposition?</li> <li>• What is our detailed pricing and access strategy?</li> <li>• What is our detailed implementation and operational research strategy?</li> <li>• What are our detailed patient and provider/community health worker/other influencer communications and advocacy plans?</li> <li>• What are our detailed decision-leader and KOL communications and advocacy plans?</li> <li>• What training and communication materials do we need to develop?</li> <li>• What is our distribution strategy?</li> <li>• Are we fully aligned with the product strategy?</li> <li>• Are we on track to launch on the target date?</li> </ul>
<b>PR #2</b>	<ul style="list-style-type: none"> <li>• What is our final product messaging to support the value proposition?</li> <li>• What are the introduction metrics we will focus on?</li> <li>• How will we track and monitor these metrics?</li> <li>• What is our risk management plan?</li> <li>• Are we fully aligned with the product strategy?</li> <li>• Are we on track to launch on the target date?</li> </ul>

## 2.2 Demand Forecasting

The following table on demand forecasting is a synthesis of multiple stakeholder interviews on the topic of demand, including such organizations as MOSAIC, USAID Global Health Supply Chain, PATH, and FHI360, among others. Our intention with these insights is to amplify critical activities that are commonly overlooked in demand forecasting due to complexity or lack of funding. More details on learnings and best practices for demand forecasting are available [here](#).

	Model inputs and outputs	Iterative modeling efforts	Managing model uncertainty
Best practices	<ul style="list-style-type: none"> <li>• Use models that are fit for purpose with clearly aligned inputs, outputs, and objectives</li> <li>• Avoid converting units—it is difficult to account for behavioral factors in these conversions (e.g., adherence)</li> </ul>	<ul style="list-style-type: none"> <li>• Given long time horizons in public sector, need to revise initial forecasts as environment changes (e.g., WHO approves new product, external event shifts funding focus)</li> <li>• Once available, use actual user data to</li> </ul>	<ul style="list-style-type: none"> <li>• Acknowledge uncertainty in modeling (e.g., through scenario analysis, providing ranged outputs based on degrees of uncertainty)</li> <li>• Thoughtfully consider the possibilities for failure—expiries,</li> </ul>

	<ul style="list-style-type: none"> <li>• Assess health system requirements before product development (e.g., the product requires specialists to operate; are there specialists in-country?)</li> <li>• Be conservative with the time required to produce, register/qualify, and create awareness for products, as it usually takes longer than expected</li> </ul>	<p>revise forecasts—will be more powerful than consumer research</p> <ul style="list-style-type: none"> <li>• Adapt the outputs and objectives of models based on the stage of product development—early models may be advocacy-oriented while a later goal may be procurement</li> </ul>	<p>product damage, no willingness to pay</p> <ul style="list-style-type: none"> <li>• Determine if a model to propagate uncertainty (i.e., define set of expected outcomes based on known facts) would provide insights (e.g., for go/no-go or advocacy decisions)</li> </ul>
Risks and challenges to consider	<ul style="list-style-type: none"> <li>• Actors are not always rational; factors (e.g., brand loyalty) can override user preferences</li> <li>• Data on health system capacity can be difficult to gather (e.g., beds, machines, specialists)</li> <li>• Demand for new products is often obscured by factors such as predicting if the new product will cannibalize demand for other products and switching costs to new product</li> </ul>	<ul style="list-style-type: none"> <li>• New products often disrupt markets; however, data may not be available to predict the impact of new products on demand</li> <li>• LMIC data collection systems are often poor, inhibiting the revision of forecasts</li> <li>• Forecasts can be self-fulfilling if funders also invest in advocacy/volume guarantees—it is difficult to isolate “true” demand</li> </ul>	<ul style="list-style-type: none"> <li>• Forecasts built earlier in product development will have greater uncertainty than later forecasts</li> <li>• Propagating uncertainty requires significant data inputs that must be updated consistently, creating a significant amount of work as factors change quickly</li> </ul>
How funders can support	<ul style="list-style-type: none"> <li>• Align with innovators on desired model outputs and</li> </ul>	<ul style="list-style-type: none"> <li>• At inflection points in therapeutic areas (e.g., new product is approved) encourage</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure innovators consider uncertainty of model inputs/outputs in forecasts</li> </ul>

	<p>objectives before models are built</p> <ul style="list-style-type: none"> <li>• Pressure test model outputs based on experience and market intelligence</li> <li>• Help innovators source inputs on markets and health systems</li> </ul>	<p>innovators to revise forecasts</p> <ul style="list-style-type: none"> <li>• Acknowledge the demand distortion caused by volume guarantees</li> <li>• Fund data collection systems alongside interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Leverage experience to inform the potential for failure with products</li> </ul>
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### 3 Resources for Global Health Product Market Access

Source	Link
CII: Ready Set Launch	<a href="https://www.usaid.gov/cii/ready-set-launch">https://www.usaid.gov/cii/ready-set-launch</a>
CII: Idea to Impact	<a href="https://www.usaid.gov/cii/guide-introduction-and-scale">https://www.usaid.gov/cii/guide-introduction-and-scale</a>
CII: Market Shaping Primer	<a href="https://www.usaid.gov/cii/market-shaping-primer">https://www.usaid.gov/cii/market-shaping-primer</a>
CII: Innovation index	<a href="https://www.usaid.gov/cii/global-health-innovation-index">https://www.usaid.gov/cii/global-health-innovation-index</a>
Duke Launch and Scale Speedometer and report	<a href="https://launchandscalefaster.org/insights">https://launchandscalefaster.org/insights</a>
Health Innovation Exchange	<a href="https://hiex.ch/innovations.html">https://hiex.ch/innovations.html</a>
UNICEF case studies	<a href="https://www.unicef.org/evaluation/evaluation-innovation-unicef-work-case-studies">https://www.unicef.org/evaluation/evaluation-innovation-unicef-work-case-studies</a>
MCHN Asset tracker	<a href="https://tableau.path.org/t/BMGF/views/MNCHNutritionAssetTracker/Coverpage?%3Aiid=1&amp;%3AisGuestRedirectFromVizportal=y&amp;%3Aembed=y&amp;_gl=1*1woosrx*_ga*MTk3NDgxMTE3LjE2Njc0OTI3MTk.*_ga_YBSE7ZKDQM*MTY2NzQ5Mjc0OC4wLjAuMTY2NzQ5Mjc0OC4wLjAuMA..#1">https://tableau.path.org/t/BMGF/views/MNCHNutritionAssetTracker/Coverpage?%3Aiid=1&amp;%3AisGuestRedirectFromVizportal=y&amp;%3Aembed=y&amp;_gl=1*1woosrx*_ga*MTk3NDgxMTE3LjE2Njc0OTI3MTk.*_ga_YBSE7ZKDQM*MTY2NzQ5Mjc0OC4wLjAuMTY2NzQ5Mjc0OC4wLjAuMA..#1</a>
Global Access to Scientific Innovations - IAVI	<a href="https://www.iavi.org/our-work/global-access-to-scientific-innovations#:~:text=IAVI%20aims%20to%20reduce%20HIV,and%20other%20innovative%20biomedical%20solutions.">https://www.iavi.org/our-work/global-access-to-scientific-innovations#:~:text=IAVI%20aims%20to%20reduce%20HIV,and%20other%20innovative%20biomedical%20solutions.</a>
Malaria R&D gaps, 'valley of death' (PATH)	<a href="https://www.path.org/resources/investigating-a-second-valley-of-death-in-malaria-rd-how-is-research-for-implementation-funded-preview-of-a-pilot-study-comparing-this-field-to-funding-for-basic-research-and-product-development/">https://www.path.org/resources/investigating-a-second-valley-of-death-in-malaria-rd-how-is-research-for-implementation-funded-preview-of-a-pilot-study-comparing-this-field-to-funding-for-basic-research-and-product-development/</a>
Gfinder	<a href="https://gfinder.policycuresresearch.org/">https://gfinder.policycuresresearch.org/</a>
IDIA Public Sector Scaling Initiative	<a href="https://www.idiainnovation.org/public-sector-scaling">https://www.idiainnovation.org/public-sector-scaling</a>
Forecasting: Principles and Practice	<a href="https://otexts.com/fpp2/">https://otexts.com/fpp2/</a>

Meeting market demand - Product-Market Fit in LMICs (SL@B)	<a href="https://www.innovationsinhealthcare.org/2ASLAB-Meeting-Market-Demand_handoff-JH2.pdf">https://www.innovationsinhealthcare.org/2ASLAB-Meeting-Market-Demand_handoff-JH2.pdf</a>
UNICEF Supply Division Market Notes and Updates	<a href="https://unicef.org/supply/market-notes-and-updates">unicef.org/supply/market-notes-and-updates</a>
CHAI Market Reports	<a href="#">HIV Market Report 2022</a> <a href="#">Hepatitis B Market Report 2022</a> <a href="#">Family Planning Market Report 2022</a>
Reproductive Health Supplies Coalition/VAN	<a href="https://www.rhsupplies.org/">https://www.rhsupplies.org/</a>
SEMA Reproductive Health	<a href="https://semareprohealth.org/">https://semareprohealth.org/</a>
Medicines for Malaria Venture	<a href="https://www.mmv.org/">https://www.mmv.org/</a>
Unitaid Technology and Market Landscapes: Next Generation Pulse Oximeters: Technology and Market Landscape 2022	<a href="https://unitaid.org/publications/?cat=all&amp;type=technology-landscape&amp;date=all&amp;search=#en">https://unitaid.org/publications/?cat=all&amp;type=technology-landscape&amp;date=all&amp;search=#en</a>
PrepWatch (HIV Prevention)	<a href="https://www.prepwatch.org/">https://www.prepwatch.org/</a>

## 4 Expanded Retrospectives

[Internal Condom Retrospective](#)

[Non-Pneumatic Anti-Shock Garment Retrospective](#)

[Pulse Oximeter Retrospective](#)

[Rectal Artesunate Retrospective](#)