Bottleneck Analysis Framework

v1, 2015

Country-Specific Bottleneck Analysis – Overview

Goal

Assess potential uptake challenges along the product value chain to identify critical bottlenecks for:
1) Intervention
2) Further investigation
3) Referral to another stakeholder, especially for systems-based issues
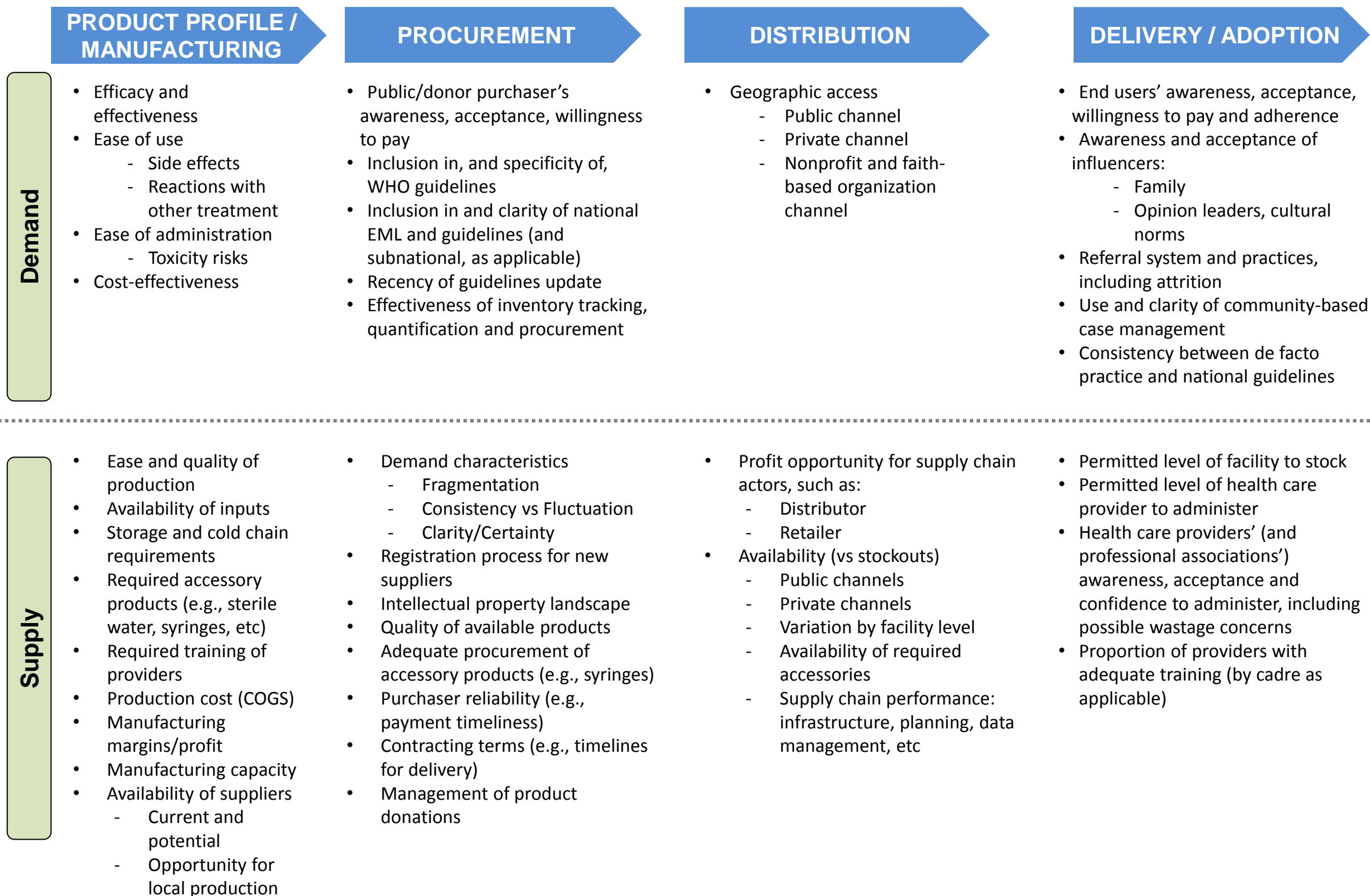
Structure

- Each potential uptake issue examined ("Metric") is detailed further in research questions to classify issue:
    - Advantage
    - Neutral/mixed issue
    - Challenge
    - Critical bottleneck
    - Unknown
- Metrics and research questions aim to cover important potential challenges while remaining answerable with reasonable effort

Approach

- Create first draft based on desk review of available reports, such as national RMNCH plans and the UNCoLSC RAIC assessment
- Vet assumptions and identified bottlenecks with in-country stakeholders
- Prioritize interventions with in-country stakeholders
- Prioritize unknowns to investigate

Input on bottleneck analysis framework and approach provided by UNCoLSC IA TRT members, including USAID technical teams, Save the Children, MSH, PATH, CHAI, and USP, among others

Bottleneck analysis framework: tool to assess country-specific product uptake challenges

PRODUCT PROFILE / MANUFACTURING	PROCUREMENT	DISTRIBUTION	DELIVERY / ADOPTION

Demand

- **Product Profile / Manufacturing**
  - Efficacy and effectiveness
  - Ease of use
    - Side effects
    - Reactions with other treatment
  - Ease of administration
    - Toxicity risks
  - Cost-effectiveness

- **Procurement**
  - Public/donor purchaser's awareness, acceptance, willingness to pay
  - Inclusion in, and specificity of, WHO guidelines
  - Inclusion in and clarity of national EML and guidelines (and subnational, as applicable)
  - Recency of guidelines update
  - Effectiveness of inventory tracking, quantification and procurement

- **Distribution**
  - Geographic access
    - Public channel
    - Private channel
    - Nonprofit and faith-based organization channel

- **Delivery / Adoption**
  - End users' awareness, acceptance, willingness to pay and adherence
  - Awareness and acceptance of influencers:
    - Family
    - Opinion leaders, cultural norms
  - Referral system and practices, including attrition
  - Use and clarity of community-based case management
  - Consistency between de facto practice and national guidelines

Supply

- **Product Profile / Manufacturing**
  - Ease and quality of production
  - Availability of inputs
  - Storage and cold chain requirements
  - Required accessory products (e.g., sterile water, syringes, etc)
  - Required training of providers
  - Production cost (COGS)
  - Manufacturing margins/profit
  - Manufacturing capacity
  - Availability of suppliers
    - Current and potential
    - Opportunity for local production

- **Procurement**
  - Demand characteristics
    - Fragmentation
    - Consistency vs Fluctuation
    - Clarity/Certainty
  - Registration process for new suppliers
  - Intellectual property landscape
  - Quality of available products
  - Adequate procurement of accessory products (e.g., syringes)
  - Purchaser reliability (e.g., payment timeliness)
  - Contracting terms (e.g., timelines for delivery)
  - Management of product donations

- **Distribution**
  - Profit opportunity for supply chain actors, such as:
    - Distributor
    - Retailer
  - Availability (vs stockouts)
    - Public channels
    - Private channels
    - Variation by facility level
    - Availability of required accessories
    - Supply chain performance: infrastructure, planning, data management, etc

- **Delivery / Adoption**
  - Permitted level of facility to stock
  - Permitted level of health care provider to administer
  - Health care providers' (and professional associations') awareness, acceptance and confidence to administer, including possible wastage concerns
  - Proportion of providers with adequate training (by cadre as applicable)

PROCUREMENT Detail: Potential Bottlenecks

Country	Country Name	**Last Updated**	Jul. 3, 2014

	Metric	Desk Review Research	Data Source	Summary
Demand	Public/donor purchaser's awareness, acceptance, willingness to pay	• Who are the primary purchasers (MOH, USAID, NGOs, etc)? • What budget do the primary purchasers allocate to this product? Is there a cap on unit price?		
	Inclusion in, and specificity of, WHO guidelines	• Are all recommended formulations endorsed by the WHO and/or other SRAs who these purchasers rely on for purchasing decisions?		
	Inclusion in and clarity of national EML and guidelines	• Are all recommended formulations clearly specified in the national (subnational, as applicable) EML and treatment guidelines? • When were national treatment guidelines last updated? • Do the guidelines reflect product best practices?		
	Recency of guidelines update			
	Effectiveness of inventory tracking, quantification and procurement	• At facilities, what is the ordering process (timeline and decisionmakers)? • How does ordering relate to inventory tracking? • How accurately is demand quantified and forecasted? • Does the procurement process include formulations based on the EML? • Are quality specifications included in the procurement process?		
	Demand characteristics	• How fragmented is demand between public, NGO and private sector? • How much does demand fluctuate from year to year?		
Supply	Registration process for new suppliers	• What is the registration process, and how much time and effort is required from new suppliers?		
	Quality of available products	• Do products available to the primary purchasers meet quality standards?		
	Adequate procurement of accessory products (e.g., syringes)	• Administering the product may require accessory products (e.g., needles or sterile water). If so, how are these quantified and procured? • What availability indicators exist for these accessory products?		
	Purchaser reliability	• For the primary purchasers, how reliable are their payments? • How timely are their payments?		
	Contracting terms	• How timely are manufacturers in delivering their products? • Other relevant contracting terms?		
	Management of product donations	• How sizable are product donations? Who approves donations? • How are donations distributed?		
Other		• What other factors affect procurement of sufficient, high quality products?		

LEGEND for Summary Assessment

Advantage	Neutral	Challenge	Critical Bottleneck	Unknown

DISTRIBUTION Detail: Potential Bottlenecks

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	Metric	Desk Review Research	Data Source	Summary
Demand	Public channel – geographic access	• Pricing for 1L and 2L treatment course to end user • Distribution of facilities (e.g., # of primary care sites, secondary care sites, etc) and average distances, time or transport costs for urban and rural users • Perception of public health facilities		
	Private, for-profit channel – geographic access	• Pricing for 1L and 2L treatment course to end user • Distribution of health facilities and average distances, time or transport costs • Perception of private, for-profit health facilities		
	Nonprofit and faith-based organization (FBO) channel – geographic access	• Pricing for 1L and 2L treatment course to end user • Distribution of health facilities and average distances, time or transport costs • Perception of nonprofit and FBO health facilities		
Supply	Profit opportunity for distributors	• What is the profit and profit margin in supplying 1L and 2L products wholesale? How does this compare to distributors' other products? • What volume and % of their customers buy this product?		
	Profit opportunity for retailers	• What is the profit and profit margin for providers in administering 1L and 2L treatment courses? How does this compare to retailers' other products? • What volume and % of their patients use this product?		
	Availability (vs stockouts) in public channels of product, accessories	• How common are product or accessory stockouts in public facilities? • How much inventory is kept, where is it stored, and how often is it checked?		
	Availability in for-profit channels	• How common are product or accessory stockouts in for-profit facilities? • How much inventory is kept, where is it stored, and how often is it checked?		
	Availability in nonprofit/FBO channels	• How common are product or accessory stockouts in nonprofit/FBO facilities? • How much inventory is kept, where is it stored, and how often is it checked?		
	Availability by health facility level	• How does availability of the product and its accessories vary by health facility level (community, primary, secondary and hospital)?		
	Supply chain performance	• How is distribution of the product affected by supply chain performance (infrastructure, push/pull planning, data management, LMIS, etc)? • How is distribution split across public, for-profit and nonprofit/FBO channels?		
Other		• Are there other factors that greatly impact distribution?		

LEGEND for Summary Assessment

Advantage	Neutral	Challenge	Critical Bottleneck	Unknown

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DELIVERY/ADOPTION Detail: Potential Bottlenecks

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	Metric	Desk Review Research	Data Source	Summary
Demand	End users' awareness, acceptance, willingness to pay and adherence	• Among pregnant women and recent mothers, what are awareness levels of the health condition? • How willing are they to use and pay for the product? • How much value is placed on finishing a full treatment course?		
	Awareness and acceptance of influencers	• What are common views of the health condition and the product among caretakers and other influential family members? • What are common views of the health condition and product among key opinion leaders? • Are there any cultural norms around the health condition and product?		
	Referral system and practices, including attrition, if applicable	• Is the current patient referral system clearly defined? Do providers have supporting job aids, patient forms, or other guidance? • What percent of patient attrition/loss occurs through the referral process?		
	Use and clarity of community-based case management	• How does the community-based case management process work? • How would referrals/community care respond to the likely guideline changes?		
	Consistency between de facto practice and national guidelines	• How consistently does actual practice using the product reflect the national treatment guidelines? • How does this vary by public, for-profit or nonprofit/FBO providers?		
Supply	Permitted level of facility to stock	• What level of HF is permitted to stock the product? • How restrictive is this in providing the product to end users?		
	Permitted level of health care provider to administer	• What provider levels (e.g., doctor, nurse, CHW) are permitted to administer the product? • How restrictive is this in providing the product to end users?		
	Proportion of providers with adequate training (by cadre as applicable)	• Among doctors and their associations, what are awareness levels of the health condition and the product? How trained and confident are they in administering the product? • What are awareness, training and confidence levels among nurses?		
	Providers' awareness, acceptance and confidence to administer	• What are awareness, training and confidence levels among CHWs/midwives? • Is product wastage a concern in administering the product?		
Other		• Are there other factors that greatly impact the service delivery or user adoption of the product?		

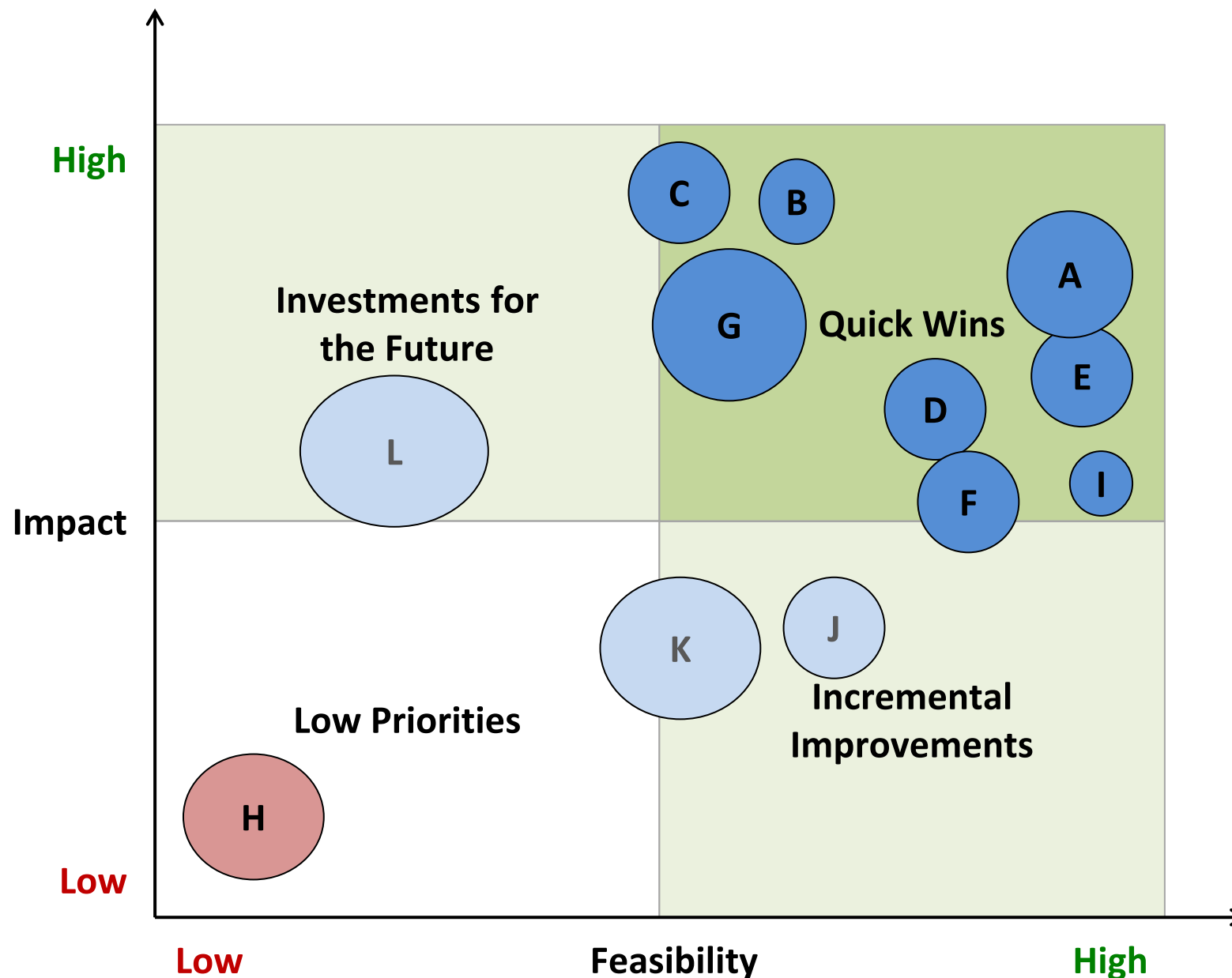**LEGEND for Summary Assessment**

Advantage	Neutral	Challenge	Critical Bottleneck	Unknown

Prioritization table can help articulate rationale for addressing identified bottlenecks

- *Impact*
  - How will addressing this challenge increase usage
  - What will the expected impact be on lives saved and DALYs averted?

- *Feasibility*
  - How serious is the challenge, or how far is this aspect from functioning?
  - How much change (and by how many actors) would be required to resolve this problem?

- *Estimated financial cost*
  - To be added through in-country input
  - (Circle size reflects the estimated cost or investment required)

*How a challenge fits within the scope of a working group is **not** reflected.*
Once a challenge is prioritized, the working group should decide whether to address it directly or advocate for an intervention by another group