



Cold chain planning: Beyond Cold Chain Inventories

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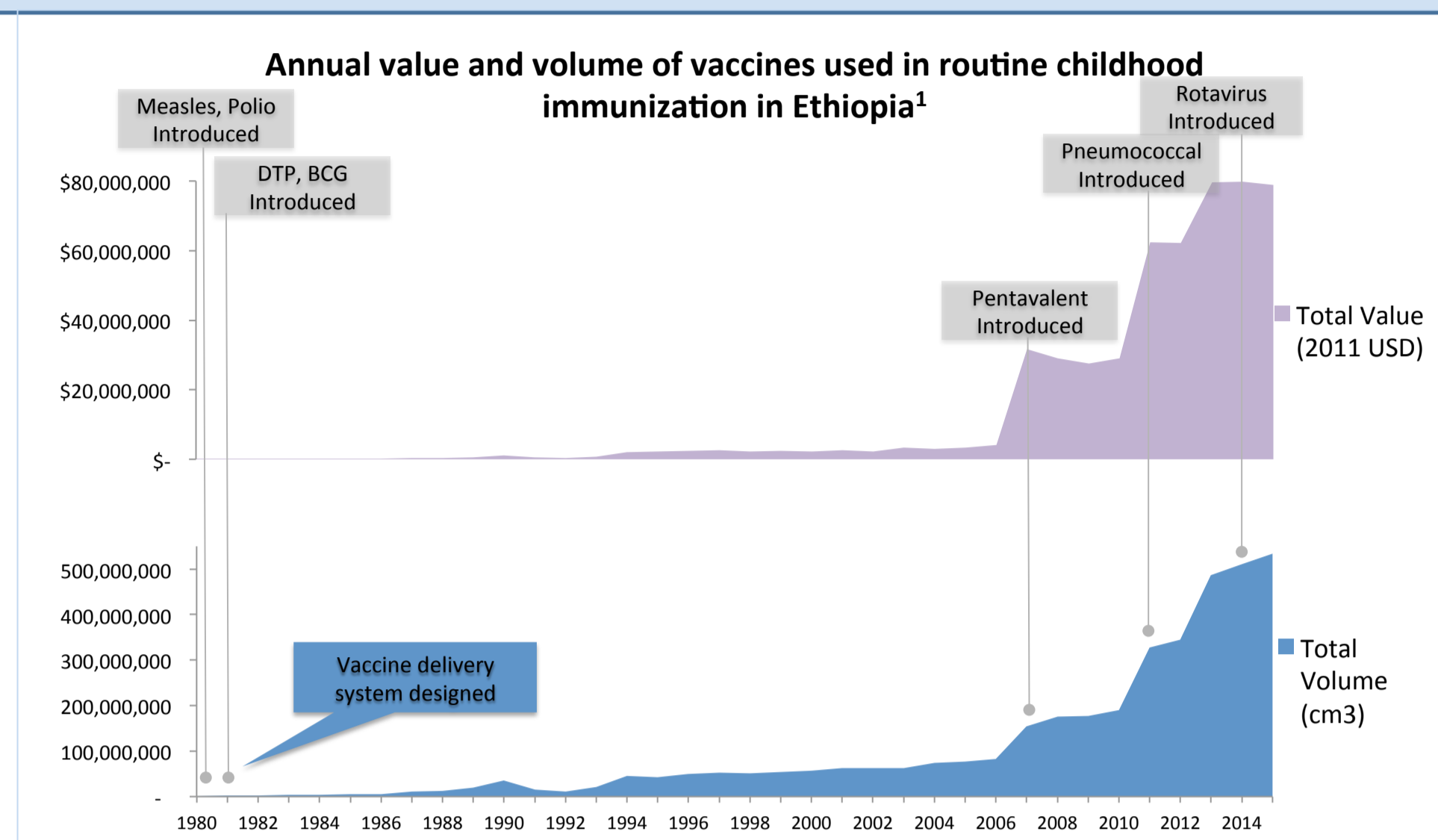
Foreign Affairs, Trade and Development Canada



THREE REASONS TO FOCUS ON COLD CHAIN PLANNING

Good planning safeguards potency and saves costs

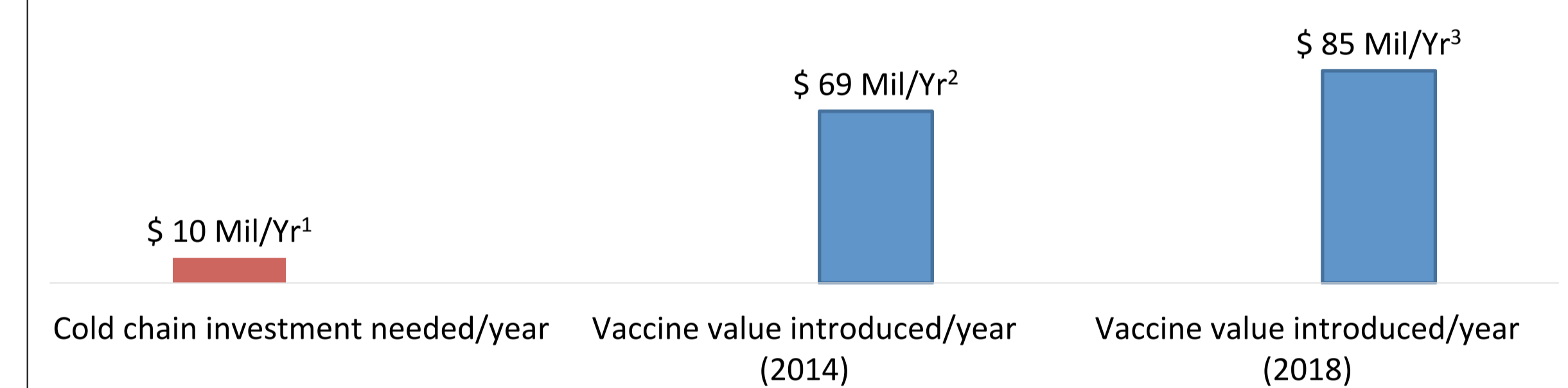
I: The VALUE and VOLUME of vaccines in the cold chain is RISING FAST



¹UNICEF Supply Division, Procurement Data, http://www.unicef.org/supply/files/Table_of_Vaccine_Procurement_1996_2013_Value.pdf; http://www.unicef.org/supply/files/Table_of_vaccine_procurement_1996_2013_volume.pdf

The INVESTMENT in COLD CHAIN is SMALL, relative to value of vaccines

Investing in the cold chain can safeguard 7-9x value of vaccines



¹ \$ 10 Mil = Installed cost of a refrigerator (\$ 5000) * number of refrigerators in Tanzania (7000) / years of cold chain planning (4) + \$ 1.25 Mil/yr. for purchase of other CCEs (WICRs, Freezers, etc.)
² \$ 69 Mil = < 1 year population in 2014 (1,944,337) * value of vaccines/FIC introduced in Tanzania by 2014 (\$ 35.18/FIC)
³ \$ 85 Mil = < 1 year population in 2019 (2,185,233) * value of vaccines/FIC introduced in Tanzania by 2019 (\$ 39.08/FIC)
Population figures taken from GAVI Tanzania web page, and value per FIC calculated from TZ vaccine schedule and vaccine values as obtained from UNICEF vaccines pricing website.

OVERLOOKED FACTORS FOR SUCCESS

Lessons learned across 7 CHAI countries

Focus on **both REPLACEMENT of equipment and EXPANSION of equipment capacity**

Choose cold chain equipment **not only based on PRICE, but also PERFORMANCE (e.g., non-freeze)**

Ensure **BUY-IN from MoH and key STAKEHOLDERS**

Define how the plan will be **FUNDED, equipment ALLOCATED, and execution MONITORED**

5-STEP COLD CHAIN PLANNING PROCESS

Cold chain planning is more than just inventories

Conduct Cold Chain Inventory

- Has the right data been collected, e.g., type of equipment, location, serial number, functional status, quality factors incl age, temperature control, condition, etc?

Calculate Capacity Gaps

- What gaps exist to meet current and future needs, incl new vaccine introduction, campaigns, buffer, wastage, etc?

Develop Plan to Fill Gaps

- What scenarios should be considered, e.g., Repair, Replace, etc?
- What assumptions does MoH support, e.g., electrification, replacement age, gas-based, level of freeze-protection, etc?

Select & Cost Equipment Options

- Has the right mix of optimal equipment been selected for the site?
- What is the estimated cost to procure – and install – equipment?

Execute Plan & Monitor Progress

- Has equipment been procured, installed in the right places, and entered into the system?
- Is the inventory regularly reviewed for accuracy?

THREE POTENTIAL OUTCOMES OF CAREFUL PLANNING

Proper planning can yield dramatic results

Increased budgets for cold chain equipment



Better equipment selection with optimal technology



Decision to stop buying non-PQS cold chain equipment



Updating cold chain plans soon?
CHAI has developed a number of guides and templates to help guide the planning process. To learn more, please contact the author:

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