

Cold Chain Equipment Manager (CCEM)

Valuable new tool for better management of cold chain equipment

Free, easy-to-use, field-tested database program helps immunization managers meet rapidly expanding needs

Immunization program managers around the world are facing a critical challenge. Although recently developed vaccines against *Haemophilus influenzae* type b (Hib), rotavirus, human papillomavirus, and other pathogens can save millions of lives, delivering these vaccines to children and adults who need them will require substantial improvements in cold chain management and capacity.

A new, free software tool called Cold Chain Equipment Manager (CCEM) can help. It enables program managers to get the right equipment to the right place at the right time.

A growing need to upgrade the cold chain

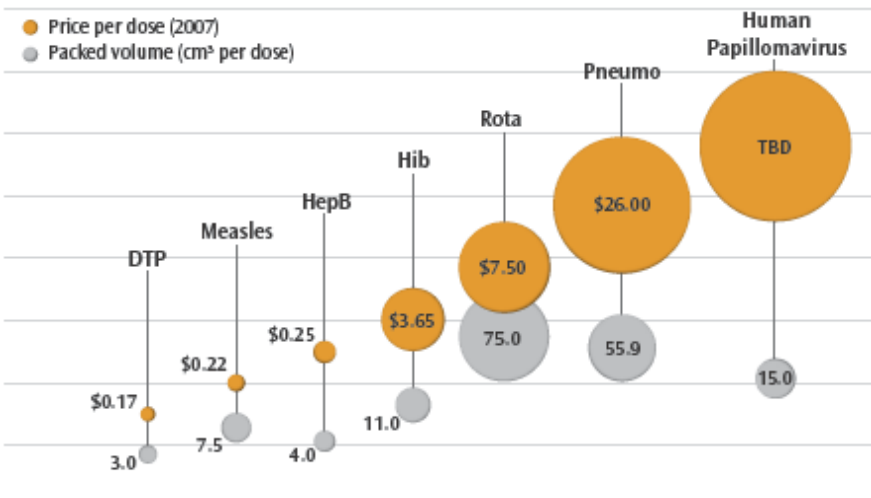
Throughout the next decade and beyond, countries will have opportunities to introduce many new lifesaving vaccines into standard immunization programs—in some cases

doubling the number of vaccines offered. The new products will generally cost more and require more storage space than traditional vaccines.

Effective and efficient delivery of vaccines will require better cold chain planning and management. Governments and donors that invest in the new vaccines will want to ensure that few doses are spoiled, wasted, or held in storage longer than necessary.

The CCEM solution

Developed collaboratively by UNICEF, the World Health Organization, and PATH, CCEM employs a Microsoft Access database to collect and analyze information on existing cold chain equipment and to plan for future needs. It helps cold chain managers quickly and accurately forecast costs of equipment needed for multiyear national immunization



New vaccines, such as those that protect against rotavirus (Rota), pneumococcus (Pneumo), and human papillomavirus (HPV) are much bulkier than traditional vaccines such as diphtheria, tetanus, and pertussis (DTP), and Hepatitis B (HepB).

New vaccines are requiring upwards of 500 times the amount of physical space in the cold chain.

plans. The tool comes with abundant documentation, including an extensive user manual.

Implementing CCEM is a six-step process:

1. Conducting an inventory of existing cold chain equipment.
2. Identifying a routine system for updating inventory data.
3. Analyzing existing storage capacity against requirements.
4. Assessing cold chain performance indicators.
5. Planning for vaccine storage capacity requirements.
6. Developing a multiyear plan for equipment procurement.

The CCEM tool, database source code, and documents may be used, copied, and distributed without charge.

Designed to meet users' needs

CCEM has been expertly designed to give users a reliable, easy-to-use tool that meets their needs. Key features and benefits include:

- An equipment identification guide and simple data collection forms that improve inventory accuracy.
- Rapid identification of health facilities with dangerous shortages in storage capacity.
- Automated impact assessment for new vaccine introductions and policy changes.
- Ability to create either standard or customized reports.
- Simplified preparation of procurement lists and multiyear budgets.
- Automated allocation of equipment based on capacity requirements, energy needs, and other factors.
- Easy integration of CCEM data into existing spreadsheet tools such as the WHO Cold Chain Capacity Planning Tool.
- Ability to tailor the tool to each country's immunization program structure.

"I sincerely got the impression that CCEM would be an excellent tool to help configure a multiyear plan for my country."

—CCEM workshop participant, Panama City, October 2008

Successful pilot use in Uganda

In 2007, CCEM was successfully used for a national inventory of 2,500 health facilities in Uganda. Input from staff with the Uganda National Expanded Programme on Immunization contributed to further refinement of the prototype. Other countries are currently being considered for implementation.

Resources

The tool and related documents are available for download in English, French, and Spanish from the PATH website at www.path.org/projects/cold-chain-ccem.php. To obtain a CD containing all CCEM materials, please email publications@path.org.

For additional information about CCEM, contact John Lloyd (jilloyd@path.org) or Sophie Newland (snewland@path.org).

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