The innovation of the Controlled Temperature Chain (CTC) – where do we go from here?
Programmatic definition of a Controlled Temperature Chain (CTC)

• a specific set of conditions allowing for a vaccine to be stored and transported outside of the traditional 2° to 8°C cold chain
  - One excursion, just prior to administration
  - Ambient temperatures up to 40° or more
  - Specifically limited duration/at least 3 days

• Current EPI priorities for CTC:
  - Campaigns & special settings
  - Appropriate tools: VVM, PTTI, Monitoring
  - Tested (for safety & stability), Licensed & Prequalified
The CTC Agenda : UPSTREAM

• Development and licensure of more CTC-compatible vaccines
  o Clarify definition and programmatic priorities
  o Regular dialogue with manufacturers and regulators
    ✓ Promoting awareness and interest in CTC
    ✓ Exploring thermostability of existing vaccines
    ✓ Encouraging CTC consideration in new product development
      – Generic Preferred Product Profiles (VPPAG)
    ✓ Clarifying barriers and challenges / identifying solutions
  o Development of WHO Guidelines on the Regulatory pathway for CTC licensure
CTC licensure to date

• December 2012 – **Meningitis A Vaccine** *(MenAfriVac)* licensed, prequalified and pilot tested for CTC
  - 4 days / 40°C

• May 2015 – **Pneumococcal Conjugate Vaccine** 13-valent *(Prevnar13)* licensed and prequalified for CTC, guidance to be developed
  - 3 days / 40°C

• End of 2015 – **Oral Cholera vaccine** *(Shanchol)* expected to be licensed and prequalified for CTC

• 8 manufacturers working on generating data in support of CTC for at least 10 different vaccines.
The CTC agenda: DOWNSTREAM

• Scale up country-level experience / boost demand
  o Integrating CTC into MenAfriVac campaigns
  o Generating more data in support of CTC
    ✓ Operational Research: KAP, Cost-benefits, Coverage
    ✓ Wastage, AEFI, Monitoring tools
  o Advocating for CTC with national stakeholders
  o Ensuring appropriate technical support
  o Improving training, supervision, and monitoring tools
  o Documenting and applying lessons learned
  o Developing field implementation guidelines for new vaccines
CTC Demand/Implementation Momentum

- **2012**
  - **Benin**: 155,596
  - **Mauritania**: +83,809

- **2014**
  - **Togo**: +1,014,768
  - **Cote d’Ivoire**: +424,376

- **2015**
  - **East and Central Africa**
    - Expected: +2,000,000

**Population Reached with CTC (Cumulative)**