

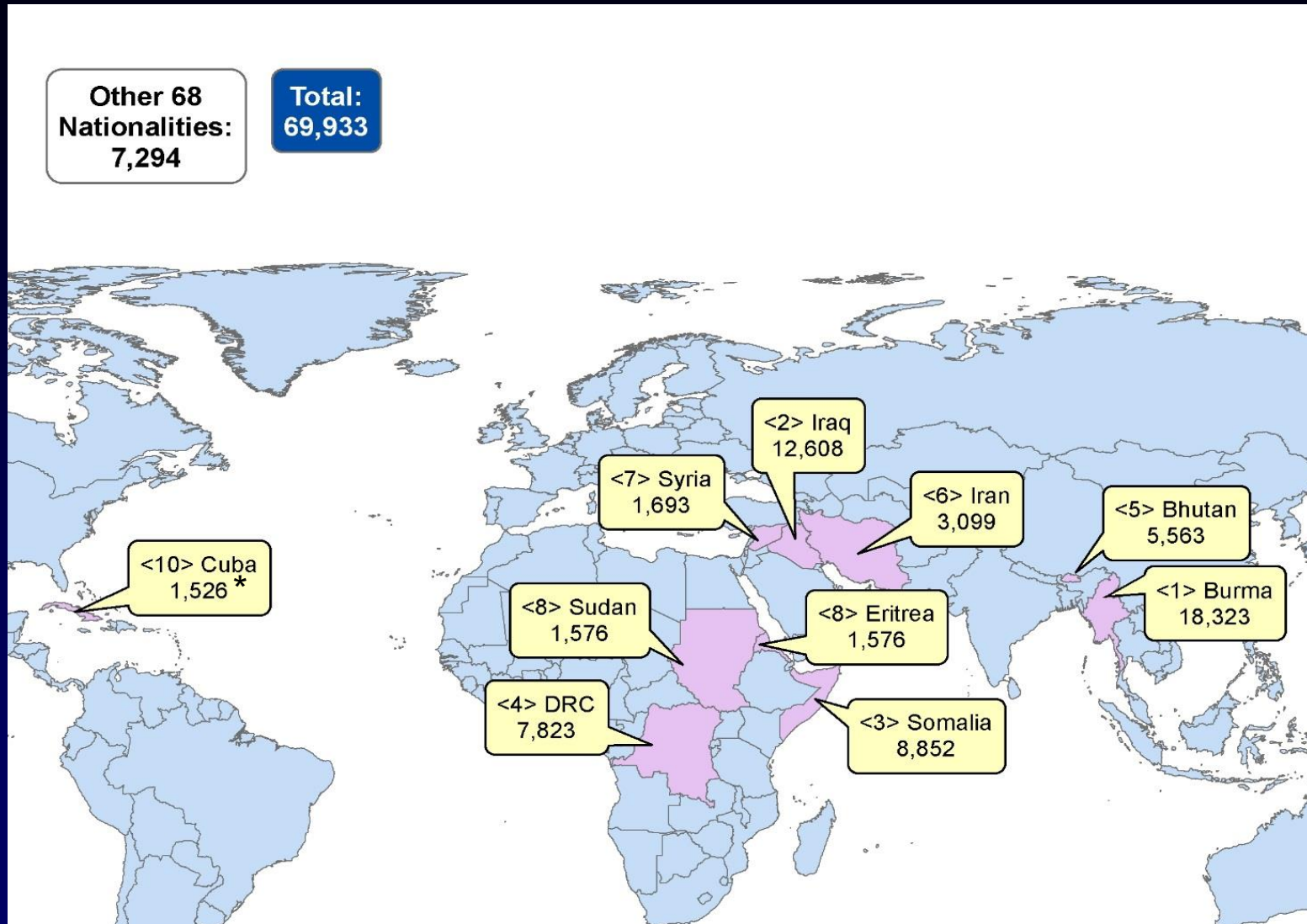
Refugee Enhanced Vaccination Program



**Division of Global Migration and Quarantine
NVAC Meeting
February 2016**



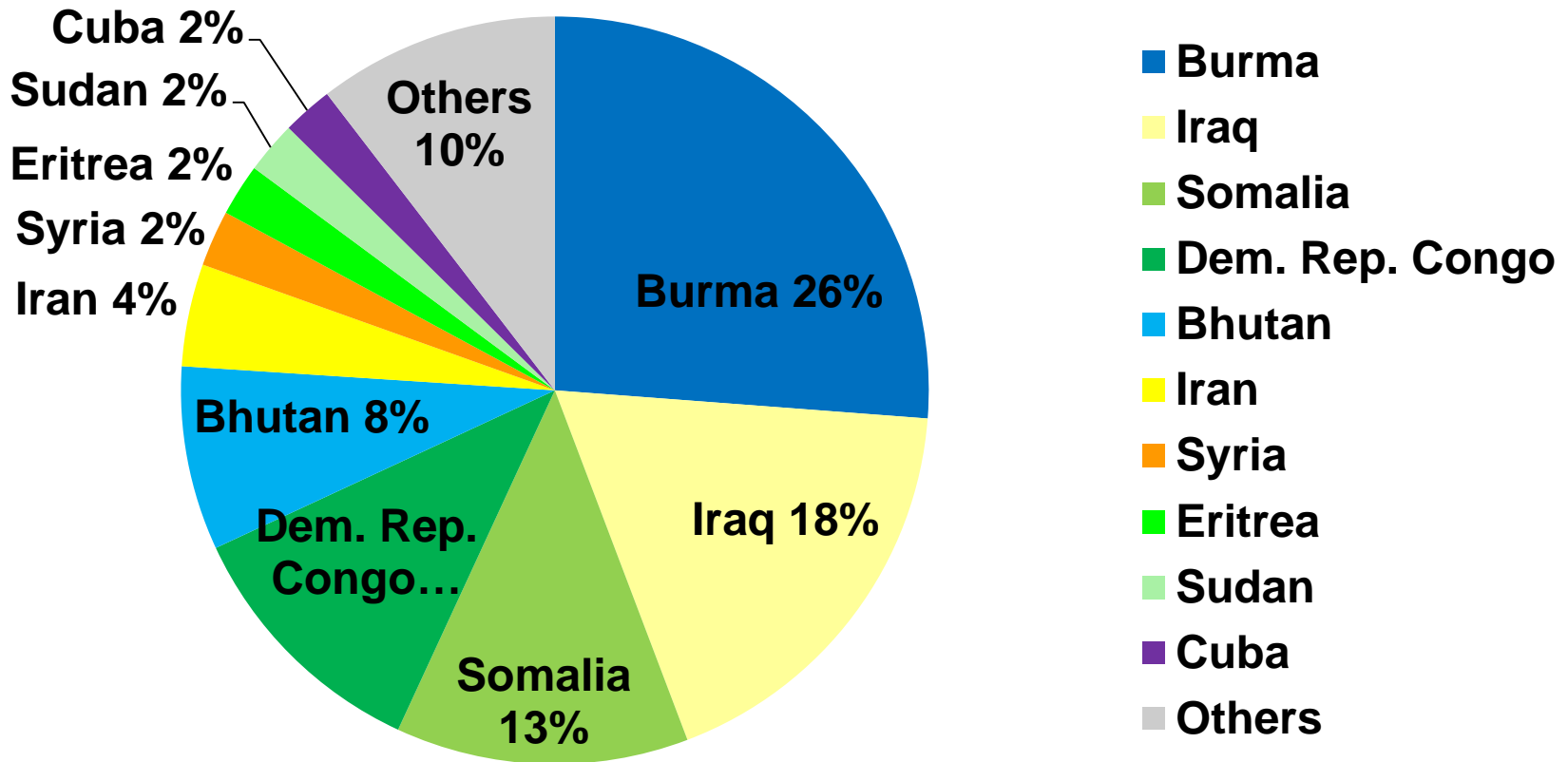
FY 2015 U.S. Refugee Arrivals Top 10 by Nationality



- Does not include paroles and asylum seekers who arrive by sea or across a land border.
- Data source: Disease Notification Analysis (DNA) database based on Worldwide Refugee Admissions Processing System (WRAPS) from the U.S. Department of State



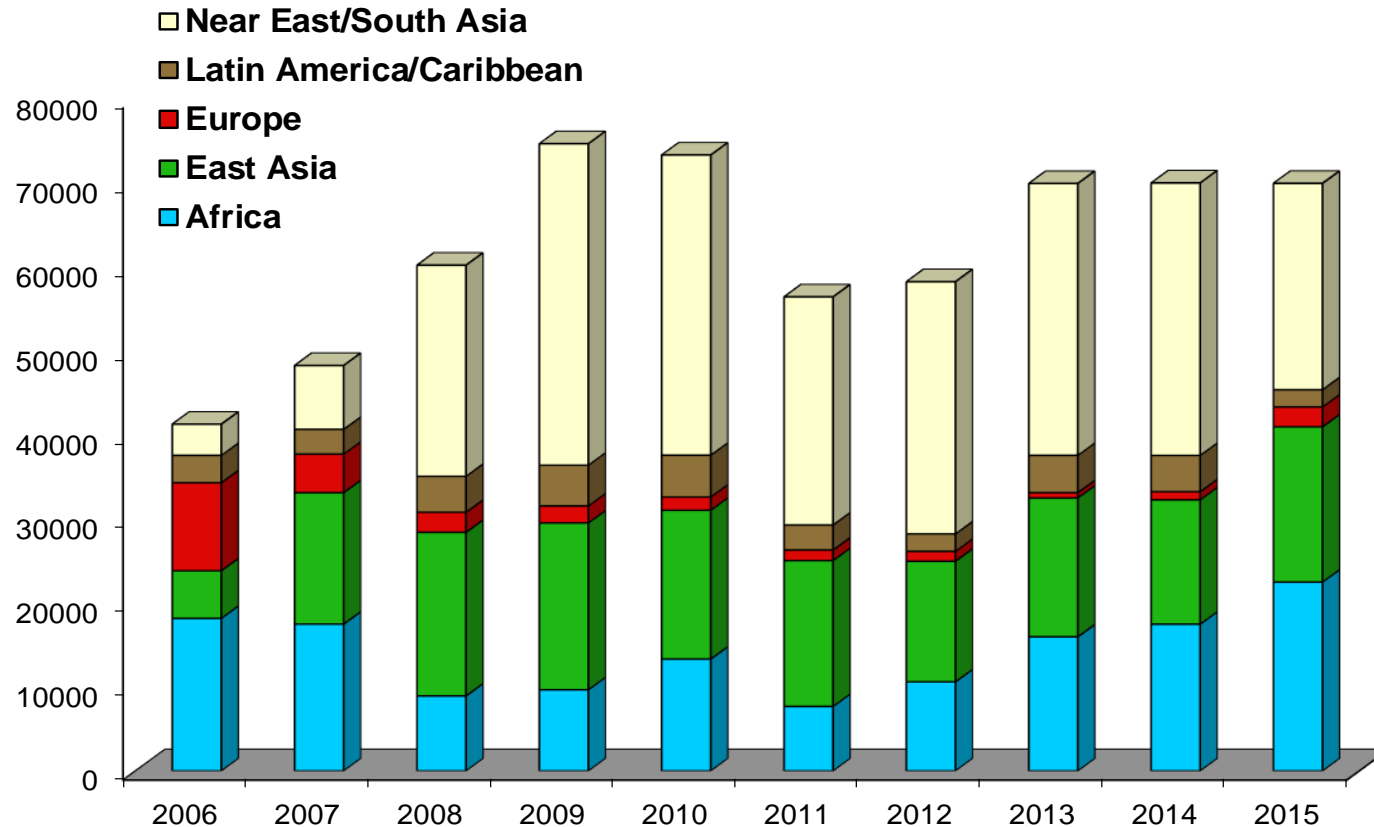
FY 2015 U.S. Refugee Arrivals Top 10 by Nationality, total arrivals = 69,933



Data source: Disease Notification Analysis (DNA) database based on Worldwide Refugee Admissions Processing System (WRAPS) from the U.S. Department of State



FY 2006 – 2015 U.S. Refugee Arrivals, by Nationality



Data source: Disease Notification Analysis (DNA) database based on Worldwide Refugee Admissions Processing System (WRAPS) from the U.S. Department of State



U.S. Refugee Admissions, FY 2016 Program*

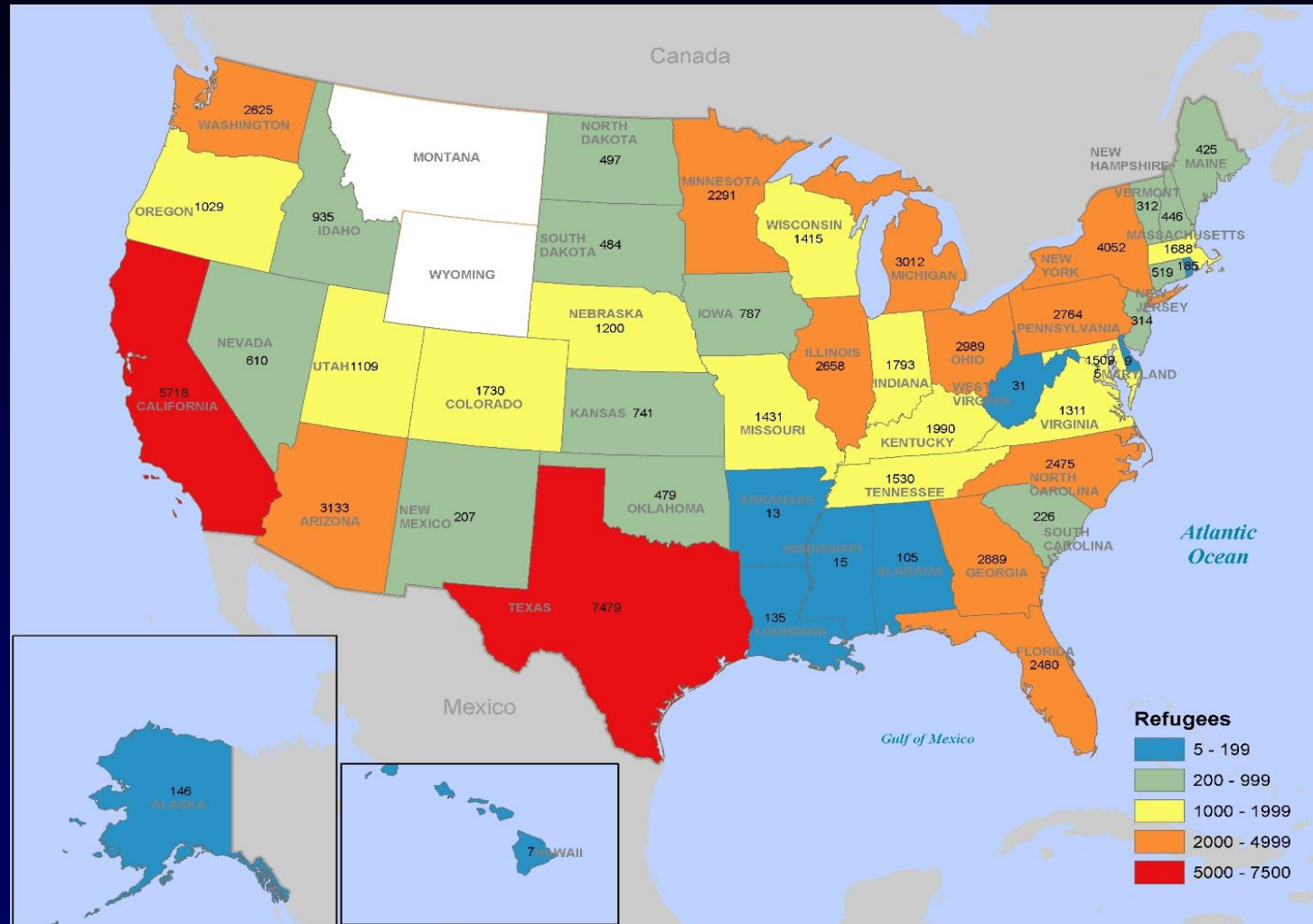
Region	Ceiling for FY 2016	Primary populations
Africa	25,000	Congolese in Rwanda, Tanzania, Uganda, Burundi; Somalis in Kenya, Ethiopia, Uganda; Eritreans in Sudan and Ethiopia
East Asia	13,000	Burmese in Thailand and Malaysia
Europe/ Central Asia	4,000	Religious minorities from the former Soviet Union
Latin America	3,000	Cubans (many) and Colombians (few), Central American minors
N. East/ S. Asia	34,000	Bhutanese in Nepal, Iraqis, Iranian religious minorities, Syrians
Unallocated Reserve	6,000	Available as needed for any region
Total	85,000	



*Proposed Refugee Admissions for Fiscal Year 2016. Report to Congress



FY 2015 U.S. Refugee Arrivals by State



Data source: Disease Notification Analysis (DNA) database based on Worldwide Refugee Admissions Processing System (WRAPS) from the U.S. Department of State



Vaccination of U.S.-Bound Refugees

- **70,000 - 85,000 refugees resettled (>70 nationalities from 100 countries) to 49 states annually**
- **Refugees not legally required to get vaccinations before U.S. resettlement**
 - **Many refugees arrive in U.S. with no documented vaccinations**
- **> 40 vaccine-preventable disease outbreaks in last 5 years**
- **Missed opportunity to vaccinate refugees between required overseas health assessment & arrival in U.S. (4-6 months)**



Selected Vaccine Preventable Diseases Affecting U.S.-bound Refugees

2003-2005: Measles, rubella, varicella, Côte D'Ivoire (Liberian refugees)

- Death of 1 child (measles)
- U.S.-born child with congenital rubella
- Delay of resettlement >6 m during outbreak control period

2006: Polio, Dadaab, Kenya (Somali refugees)

- Related outbreak control costs: \$309,283

2003

2005

2006

2011

**Dec 2012
Vaccine
Program
Starts**

2005: Measles, Eastleigh, Kenya (Somali refugees)

- CDC recommended vaccination & waiting 1 incubation period before resettlement
- Recommendations not implemented due to cost concerns
- Results: Ill refugee arrives in U.S.; domestic outbreak response and surveillance

2011: Measles, Kuala Lumpur, Malaysia (Burmese refugees)

- Symptomatic in-flight; transmission to 2 other children on the plane
- Several epidemiologically linked cases, including a case in a CBP officer
- Extensive overseas & domestic outbreak control and vaccination efforts
- Related costs ~\$130,000

Cost Comparison: Vaccination Program

- Giving 10 doses of vaccines (2 doses of each of 5 childhood vaccines) overseas costs 76% less than giving the same vaccines in the US [\$93 vs \$388]
- Giving 10 doses of vaccines overseas represents a 16-25% reduction in getting a child fully vaccinated (35 doses of routine childhood vaccines as per ACIP) [\$1406 vs \$2020]
- Additional benefits of eliminating serious diseases in the refugees, preventing outbreaks and importation into the U.S.



Successful Overseas Interventions: Pre-departure Parasite Treatment Program

- Started in 1997 with parasite treatment for Barawan Somali refugees
- Now includes
 - albendazole and ivermectin for soil-transmitted helminths
 - praziquantel for schistosomiasis
 - artemether-lumefantrine for malaria



NVAC Global Immunizations Working Group Recommendation

Ensuring Immunization Coverage among U.S.-bound Refugees

The Assistant Secretary of Health (ASH) should endorse HHS coordination with other USG agencies to support efforts that provide routine overseas administration and documentation of vaccinations for all U.S.-bound refugees with vaccines that have been identified for pre- departure administration.



Refugee Vaccination Program: Overview

- **Partnership between CDC and the Bureau of Population, Migration and Refugees (PRM), Department of State (DOS)**
- **Implemented by the International Organization for Migration (IOM)**
- **Start with 5 pilot host countries of asylum: Malaysia, Nepal, Thailand, Ethiopia and Kenya**
- **Plan to expand to 100% coverage for all refugees in U.S. Refugee Admissions Program (USRAP)**



Refugee Vaccination Program: Overview

- **Vaccinate U.S.-bound refugees according to the U.S. schedule as feasible**
 - **Subject-matter experts convened in 2010-2011 to develop schedule**
 - **Excludes a few currently unavailable or expensive vaccines (varicella, hepatitis A, Tdap, influenza, meningococcal)**
- **Procure vaccine through UNICEF or locally**
- **Assure proper cold chain, storage, handling and administration**
- **Provide documentation to U.S. domestic health care providers**



Vaccine Schedule for Refugee Vaccination Program

Vaccine	Dose 1 (Initial Exam)	Dose 2 (4–8 weeks after the exam depending on vaccine and site logistics)
DTP	5 yrs - < 7 yrs	N/A
Hepatitis B	Birth - < 6 wks AND 5 yrs - adult	14 wks - adult
Hib ^{1,2}	N/A (part of pentavalent)	14 wks - < 15 mos
MMR	1 yr ³ - born in or after 1957	1 yr - born in or after 1957
OPV (trivalent)	6 wks - < 11 yrs	14 wks - < 11 yrs
PCV-13	6 wks - < 5 yrs ^{4,5}	14 wks - < 2 yrs ⁶
Pentavalent ⁷ (DTP-HepB-Hib)	6 wks - < 5 yrs	N/A
Rotavirus	6 wks- < 15 wks	14 wks - ≤ 8 mos
Td ^{9,10}	7 yrs – adult	7 yrs – adult (see footnote for exclusions)

¹also give 1 dose of Hib vaccine to unimmunized immunocompromised patients with functional asplenia aged ≥5 yrs, and to unimmunized HIV-infected patients aged 5-18 yrs²also give a dose to children now < 5 yrs old who were < 15 mos old when received previous dose

²start at age 6 mos during outbreaks

⁴also give one dose to immunocompromised refugees aged 5 yrs and older

⁵give one dose only of PCV-13 to all children <5 years who have received 4 doses of PCV-10 or PCV-7 series on vaccine history. Otherwise, vaccinate as per schedule in table for children with <4 doses of PCV-7 or PCV-10 vaccines on history

⁶also give additional dose to children now < 5 yrs old who were < 2 yrs old when received previous dose

⁷if there is already a vaccination history of one or more component(s) of Pentavalent vaccine, separate vaccine components can be given instead.

⁸MAXIMUM age for dose 1 is 14 weeks 6 days. MAXIMUM age for dose 2 is 8 months.

⁹give only ONE Td dose to children aged 7 and older who have any historical documentation of DTP or DTaP vaccine (regardless of when administered)

¹⁰do not give Td vaccine to children who have received DTP/DTaP within the last 12 months

Schedule: Catch-Up Considerations

Vaccine	Maximum number of doses (including doses on history)	Dose intervals recommended for USRAP	Minimum dose intervals (can be used if short of time)
DTP/DTaP	<p>4 - If child has fully reliable vaccine records or IOM is certain the child has not received other DTP doses outside of what is documented on vaccine records.</p> <p>If there is any doubt about the vaccine record, or if the child does not have a vaccine record but lives in a setting where many refugee children have received DTP vaccines, only give DTP per schedule in table 1 and no further catch-up doses.</p>	8 weeks EXCEPT dose 3 to dose 4 interval = 6 mos	<ul style="list-style-type: none"> 4 weeks for doses 1-2 and 2-3 6 months for dose 3-4 For <u>DTP only</u>—if a child already has 4 documented doses of DTP on history, do not give another dose, even if previous doses given below minimum age or interval²
Hepatitis B	3	8 weeks	<ul style="list-style-type: none"> 4 weeks for dose 1-2 8 weeks for dose 2-3 <p>Dose 3 must be given at least 16 weeks after dose 1 AND minimum age for dose 3 is 24 weeks</p> <p><i>Do not count doses given below minimum age or interval as valid</i></p>
Hib	<p>4 (depending on current age and age at time of first dose; see ACIP and table 1); briefly:</p> <ul style="list-style-type: none"> To get a 1st dose of Hib, child must be <5 yrs old OR have condition as specified in footnote 3 of table 1 To get a 2nd dose, child must have been <15 mos old during dose one To get a 3rd dose, child must have been <12 mos old during dose <u>one</u> AND <15 mos old during dose <u>two</u> To get a 4th dose, child must have been <12 mos old during doses <u>one</u>, <u>two</u>, and <u>three</u> 	8 weeks	<ul style="list-style-type: none"> 4 weeks IF age <12 mos 8 weeks if age is 12 mos or older OR if age <12 mos but dose 1 was given at age ≥7 mos <p><i>Do not count doses given below minimum age or interval as valid</i></p>
MMR	2	8 weeks	<p>4 weeks</p> <p><i>Do not count doses given below minimum age or interval as valid</i></p>
OPV/IPV Trivalent ³	4	8 weeks EXCEPT dose 3 to dose 4 interval = 6 mos with minimum age 4 years for dose 4	<ul style="list-style-type: none"> 4 weeks for doses 1-2 and 2-3 6 mos for dose 3-4 AND minimum age for dose 4 must be 4 yrs <p><i>Do not count doses given below minimum age or interval as valid</i></p>
PCV-13	4 (depending on current age and age at time of first dose see ACIP)	8 weeks	<ul style="list-style-type: none"> 4 weeks IF age <12 mos 8 weeks if age is 12 mos or older <p><i>Do not count doses given below minimum age or interval as valid</i></p>
Pentavalent	3	8 weeks	See individual vaccine components
Td	2 (see Table 1 footnotes 8 and 9)	8 weeks	4 weeks

Hepatitis B Pre-vaccination Testing

- **CDC, 2008**

"All persons born in geographic regions with HBsAg prevalence of $\geq 2\%$... should be tested for chronic HBV infection. This includes immigrants, refugees, asylum seekers, and internationally adopted children born in these regions, regardless of vaccination status in their country of origin (123)... Because HBsAg prevalence can vary within these regions, additional knowledge about local HBsAg prevalence can be used to guide decision making regarding testing." (<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm>)

- **Rapid HBsAg**

- **Vaccination of negatives; counseling of positives**



Vaccination Program: Preparation

- **USRAP Expanded Vaccination Program Manual**
 - vaccine specific instructions, administration of vaccines, injection safety, etc.
- **Contraindication/Precaution Checklist**
- **Vaccine Information Statements (VIS)**
- **Country-specific Standard Operating Procedures (SOPs)**
- **Adverse Effects Reporting Tool**



Training Materials

Centers for Disease Control and Prevention and
International Organization for Migration

USRAP Expanded Vaccination Program

Manual and Standard Operating Procedures

Vaccine Information Statements (VIS) and Contraindications Checklist

RUBELLA 5

You can get it from contact with an infected person. Spread from person to person through the air. Signs and symptoms include fever, headache, muscle pain, loss of appetite, and swollen glands. It can lead to deafness, meningitis, infection of the brain and spinal cord (coning), birth defects of the foetus or ovaries, and rarely sterility.

2) Contraindications

Individuals with a severe allergic reaction to gelatin or egg protein should not receive this vaccine.

3) Precautions

Individuals with a mild or low fever should not receive this vaccine.

4) What if my child or I have a moderate or severe reaction?

Look for any unusual condition, such as a serious allergic reaction, high fever, weakness, or unusual behavior. Serious allergic reactions are extremely rare with any vaccine. If one were to happen, it would most likely come within a few minutes to a few hours after the shot.

5) What should I look for?

Signs of a serious allergic reaction can include:

- difficulty in breathing
- hives or wheezing
- swelling of the throat
- fever
- diarrhea
- fast heart beat
- paleness

6) What to do?

Call your doctor immediately.

7) What to do?

If you have noticed signs of a serious allergic reaction immediately contact the nearest hospital/doctor.

8) What to do?

Ensure that the vaccination report provided by CIM is with you and presented to medical staff.

9) What to do?

When leaving a hospital/doctor take your vaccination report back and request a report from a hospital/doctor. Bring all these documents to CIM at the date of your second appointment for vaccination.

10) What to do?

Ensure that your CIM vaccination report is always with you and can be presented to CIM staff.

11) What to do?

When calling CIM be ready to provide your case number (IM-300000) and your name.

12) What to do?

IM Medical Phone Line: +603 9235 5999 (Monday to Friday - 9am to 5pm)

IM Medical Unit in Tawakkal: International Organization for Migration (Monday to Friday - 9am to 5pm)

IM Medical Unit in Tawakkal: Tawakkal Hospital, 2nd Floor, Level 2, No. 1, Jalan Pahlawan, 5000 Kuala Lumpur

REFER TO THE NEAREST CLINIC ON PUBLIC HOLIDAYS, WEEKENDS AND AFTER OFFICE HOURS

IMMUNIZATION CONTRAINDICATION CHECKLIST

For all applicants: "The following questions will help us determine which vaccines may be given by CIM. If you answer 'yes' to any questions, it does not necessarily mean that vaccines will not be given. It just means additional questions must be asked. If a question is not clear, please ask me to explain it."

REFUGEE NAME: **CING NOL BARY** CASE NO: **IM-24493** AGE: **35y11**

Question	Date 1: 05-Apr-2015	Date 2: 02-Apr-2015	Date 3:
1. Are you (or your child) sick today?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
2. Do you (or your child) have allergies to medications, food or a egg, a vaccine component or latex?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
3. Have you (or your child) ever had a serious reaction after receiving a vaccination in the past?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
4. Do you (or your child) have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g. diabetes), anemia, or other blood disorder?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
5. Do you (or your child) have cancer, leukemia, HIV/AIDS, or any other immune system problem?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
6. In the past 3 months, have you (or your child) taken medications that weaken your immune system, such as corticosteroids, prednisone, other steroids, or anti-cancer drugs, or have you (or your child) had radiation treatment?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
7. Have you (or your child) had a seizure or a brain or other nervous system problem?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
8. In the past year, have you (or your child) received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
9. Are you (or your child/teen) pregnant?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
10. Have you (or your child) received vaccinations in the past 4 weeks?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK
11. Have you have any problems after the previous Vaccination dose at CIM	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK

For parents: Did you bring your child's immunization record with you?
It is important to have a record of your child's vaccinations. Please keep any record of your child's previous vaccinations or the ones they receive from CIM for future reference.

T°C: **37** T°C: T°C:

019 321 48587 016 782 6444

9/2

Vaccination Program: Preparation

- Cold chain maintenance & CDC Storage and Handling Toolkit
- Emergency Power Supply and Retrieval Plan
- Medical Procurement Guidance
- On-site Training



Cold Chain



Visible
thermometer

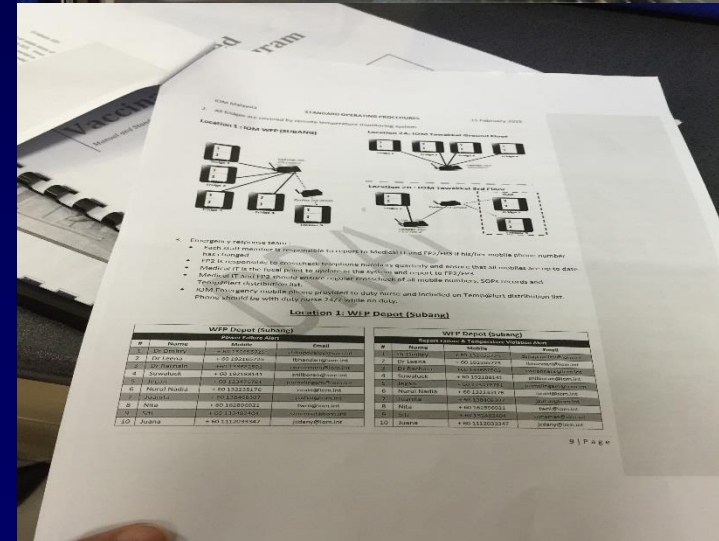
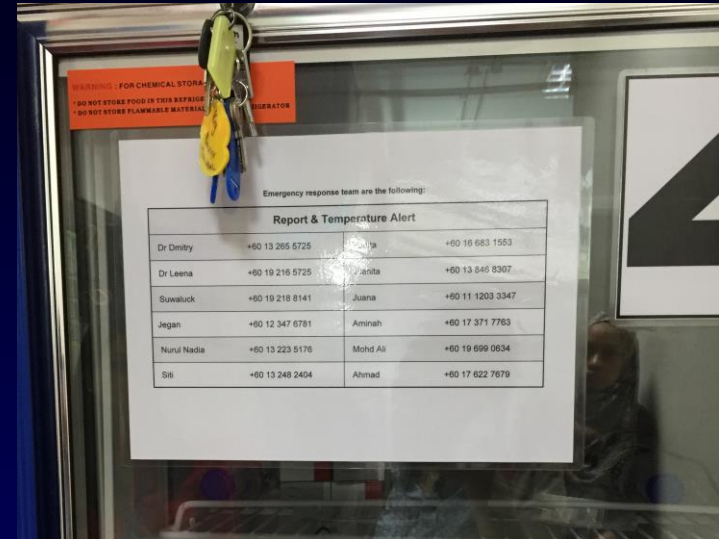
SMS system for
remote monitoring

Sheets for BID
temperature
monitoring

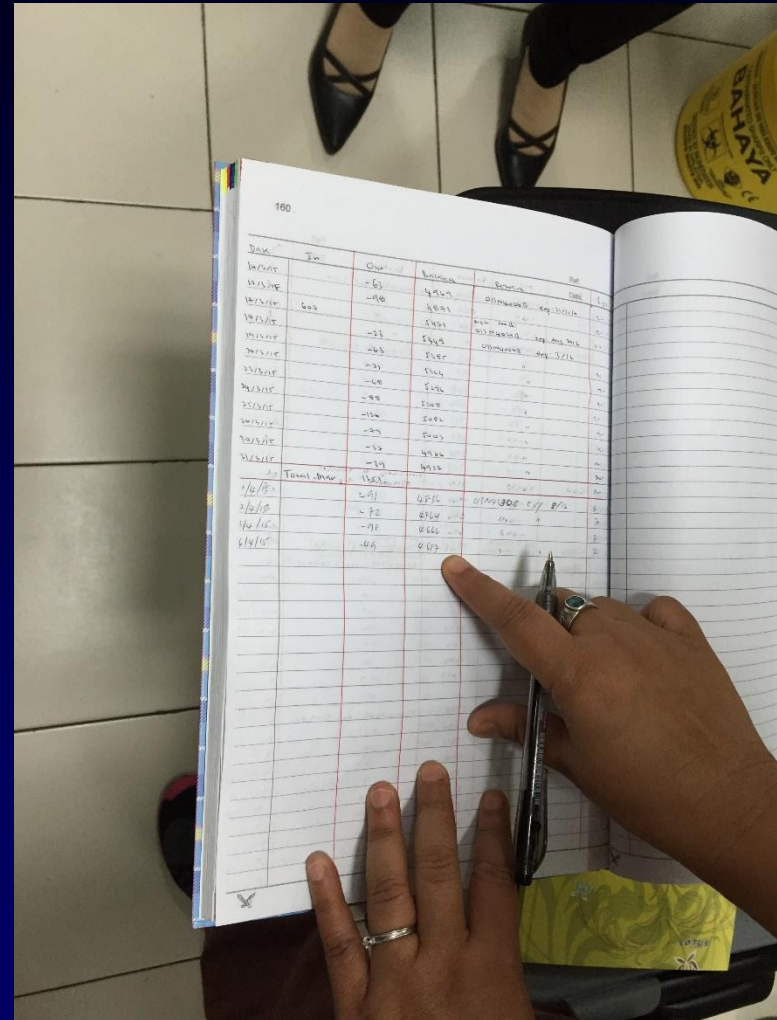
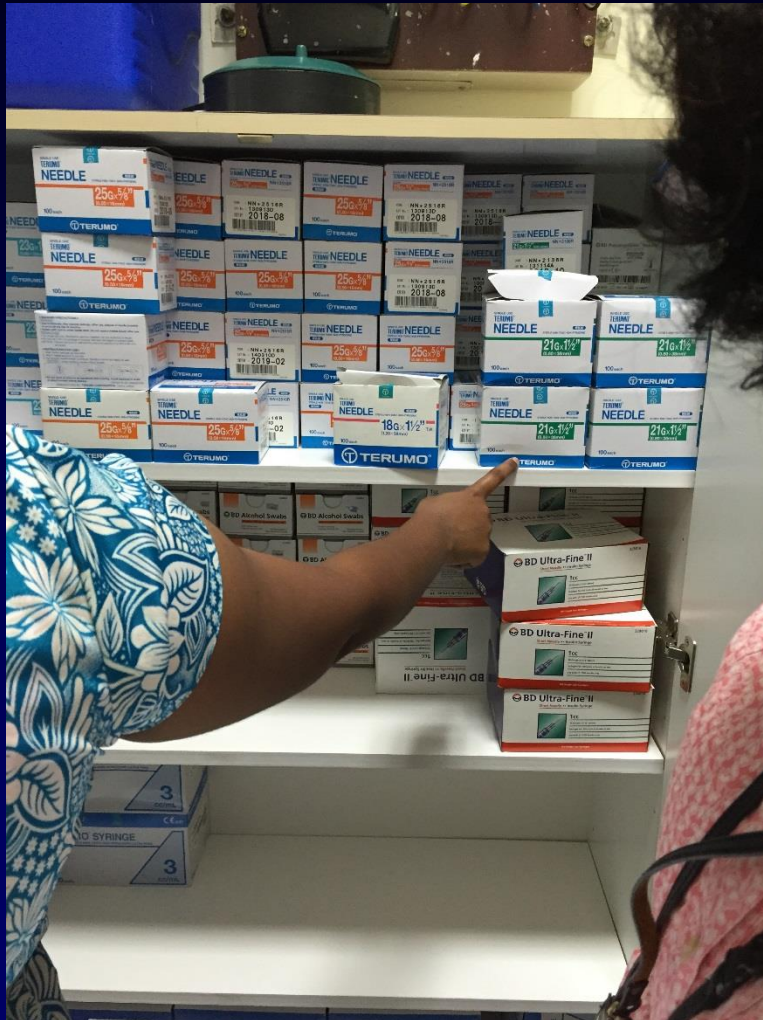
Plugs labeled
'do not
disconnect'

Water bottles for
insulation.
No food in fridge.

Cold-Chain Safeguards



Supply Stocks and Logbooks



Documentation: New DS-3025 Form

Photo

VACCINATION DOCUMENTATION WORKSHEET
 To Be Completed by Panel Physician Only
 For US Vaccination Requirements

OMB No. 1425-0113
 EXPIRATION DATE: 09/30/2017
 ESTIMATED BURDEN: 30 minutes
 (See Page 2 of 2)

GIVE COPY TO APPLICANT

Name (Last, First, MI)		Birth Date (mm-dd-yyyy)	Exam Date (mm-dd-yyyy)		Blanket Waiver(s) To Be Requested If Vaccination Not Medically Appropriate.
Passport Number		Alien (Case) Number			

1. Immunization Record
 Vaccine History Transferred From a Written Record
 List Chronologically from Left to Right. Provide date as mm-dd-yyyy

Vaccine	Date	Date	Date	Date	Date	Date	Date	Date	Date	<div style="display: flex; justify-content: space-between;"> Vaccine Given By Panel Site For Designated Refugees Only: Additional Vaccine Given by IOM* Test for Immunity </div>	Indicate reason below. Mark all that apply (see legend): A, B, C, D, F, H
Diphtheria, tetanus, pertussis											
<input type="checkbox"/> DT, DTP, DTaP											
<input type="checkbox"/> Td											
<input type="checkbox"/> Tdap											
Polio											
<input type="checkbox"/> OPV											
<input type="checkbox"/> IPV											
Measles, mumps, rubella											
<input type="checkbox"/> MMR											
<input type="checkbox"/> Measles											
<input type="checkbox"/> Mumps											
<input type="checkbox"/> Rubella											
Rotavirus											
<input type="checkbox"/> RotaTeq (RV5)											
<input type="checkbox"/> Rotarix (RV1)											
Hib											
Hepatitis A											
Hepatitis B											
Meningococcal											
<input type="checkbox"/> MCV4											
<input type="checkbox"/> Other MCV conjugate											
Varicella											
<input type="checkbox"/> Vaccine											
<input type="checkbox"/> Varicella History											
Pneumococcal											
<input type="checkbox"/> PCV 7											
<input type="checkbox"/> PCV 10											
<input type="checkbox"/> PCV 13											
<input type="checkbox"/> PPSV 23											
Influenza											
Other											

2. Summary for Immigrant Visa Applicants

☐ US vaccination requirements COMPLETE
 (Requesting a Blanket Waiver)

US vaccination requirements NOT Complete:

☐ Requesting Individual Waiver based on religious or moral convictions

☐ Requesting Adoptee Exemption

☐ Applicant refuses vaccinations

3. Panel Physician Name (printed) _____

I attest I performed this examination and have an agreement with the Department of State or supervised completion of this form. I am the same Panel Physician that signs the DS 2054.

Panel Physician signature _____

Date (mm-dd-yyyy) _____

* Only for designated refugees in special IOM vaccination program

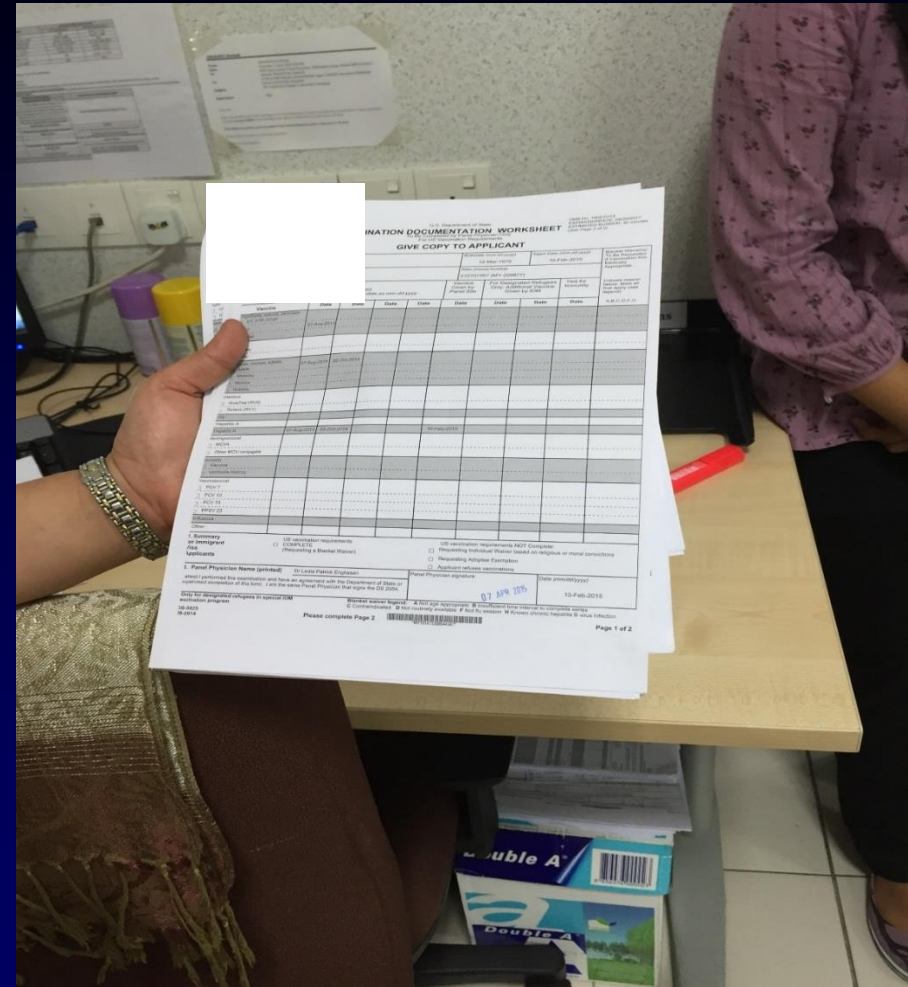
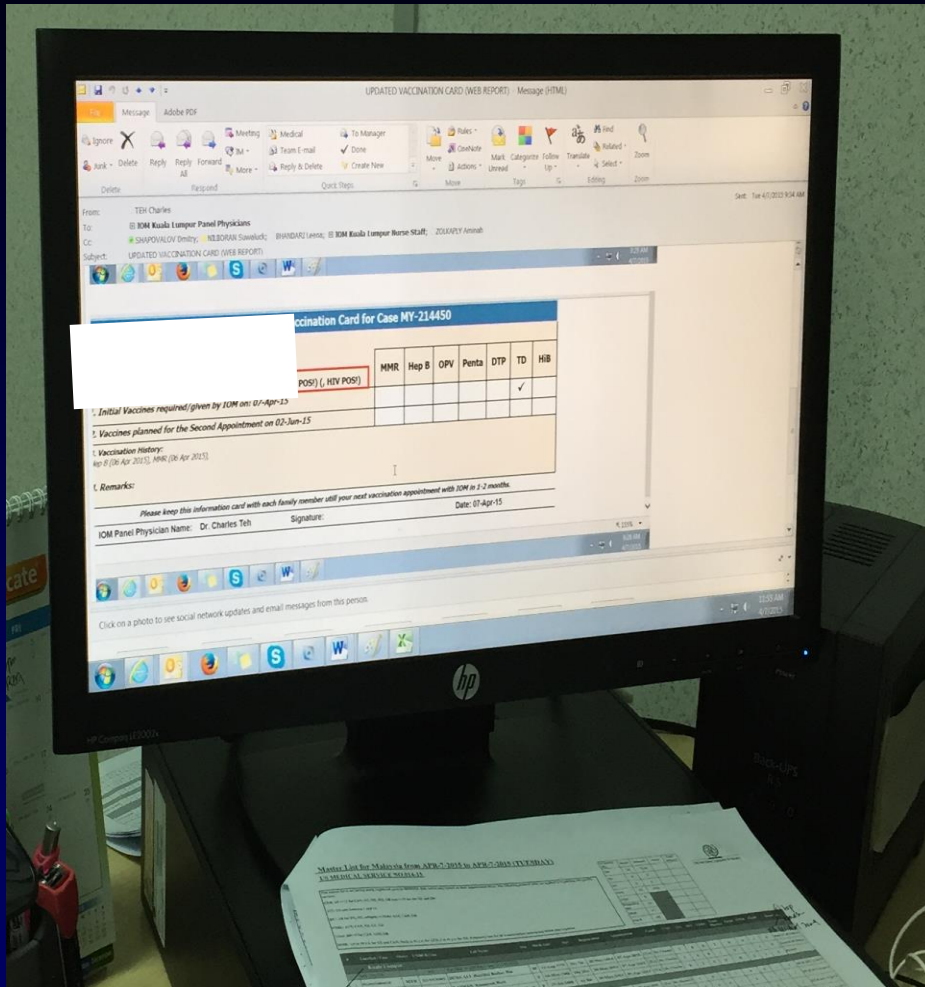
Blanket waiver legend: A Not age appropriate B Insufficient time interval to complete series C Contraindicated D Not routinely available F Not flu season H Known chronic hepatitis B virus infection

DS-3025
09-2014

Please complete Page 2

Page 1 of 2

Electronic Data Transmission



Overseas vaccination data in IOM's MiMOSA -> CDC's Electronic Disease Notification (EDN) System -> U.S. state refugee health programs/clinics

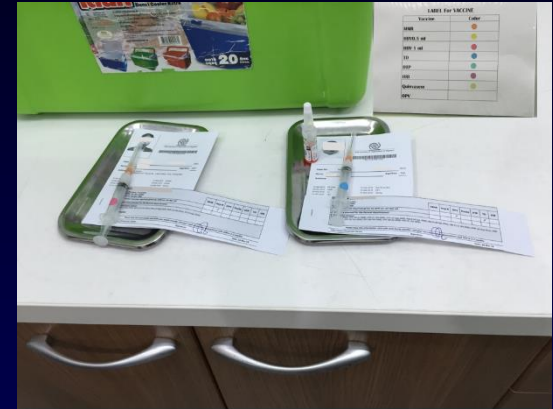
Example: Thailand Vaccine Administration



Nurse draws up doses on-site



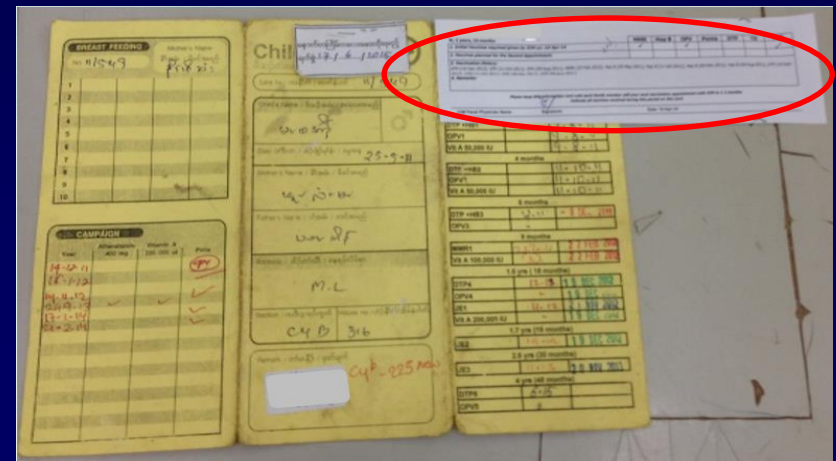
If prefilling done, is very limited;
clearly labeled



Individual tray with doses for
one patient



Second nurse administers vaccine; patient is
seated



IOM-given vaccines documented, attached to child's
camp record

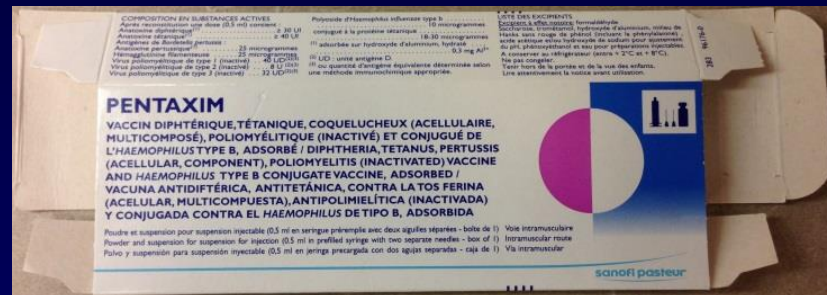
Implementation Challenges

- **Assessing validity of camp-based vaccination from health partners**
- **Logistics of 2nd dose**
- **No live vaccines administered within 30 days of other live vaccines**
- **Outbreaks & changes to vaccine schedule**
- **Adverse events monitoring in non-primary care setting**
- **Staffing and training**
- **Internet access for data entry/documentation**



Implementation Challenges: Procurement and Importation

- Vaccine procurement
 - Small amounts challenging to procure from UNICEF
 - Each country with different availability/formulation



- Importation of vaccines
 - Country-specific requirements
- Pharmacy distribution hub established in Nairobi

Implementation Challenges: Cold Chain



Implementation Challenges: Access for 2nd Doses

Scheduling of 2nd doses — careful planning required!



Photo courtesy of Luis Ortega, CDC-TUC



Photo courtesy of Warren Dalal, IRMHB

Expanded Vaccination Program for U.S.-bound Refugees, 2015

Ethiopia
3,281 Refugees
Coverage: 3,217 (98%)*

Uganda
2,570 Refugees
Coverage: 2,545 (99%)*

Kenya
5,051 Refugees
Coverage: 4,994 (99%)*

Rwanda
Coverage data not yet available
since the program started mid-Nov 2015

Nepal
4,510 Refugees
Coverage: 4,510 (100%)*

Thailand
4,251 Refugees
Coverage: 4,251 (100%)*

Malaysia
9,475 Refugees
Coverage: 9,427 (99%)*

Vaccinations Given

Children

- Diphtheria, Tetanus, Pertussis
- Hepatitis B
- Haemophilus influenzae, b
- Measles, mumps, rubella
- Rotavirus
- Polio
- Pneumococcal (pending)

Adults

- Hepatitis B
- Measles, mumps, rubella
- Tetanus, diphtheria

Implementation Dates

- Dec 2012: Nepal, Thailand
- Sep 2013: Kenya, Malaysia
- Nov 2013: Ethiopia
- Aug 2014: Uganda

*Coverage rates depict eligible refugees who have had ≥ 1 dose of tetanus-diphtheria-containing vaccine in CY 2015. This includes people with historical (pre-IOM) doses that were counted towards the schedule.

Vaccination, CY 2013-2015

- **> 100,000 refugees vaccinated**
- **~700,000 doses of vaccine**

	2013	2014	2015	Total
# refugees vaccinated	29,464	42,058	29,145	100,667
# vaccine doses	222,986	255,613	219,657	698,256



Monitoring & Evaluation

- **Site visits**
- **Documentation review**
- **Outbreak tracking**
- **Coverage reports**

Pilot Vaccination Site Assessment Checklist for IOM/CDC Supportive Site Visits		
Site: _____ Country: _____		
Checklist Completed By: _____		
Logistics, Documentation and Log books		Comments
<input type="checkbox"/>	Site has the manual titled, "USRAP Expanded Vaccination Program"?	
<input type="checkbox"/>	Site has the country specific operational plan for the vaccination program.	
<input type="checkbox"/>	Site has a central log book for all vaccines that is appropriately filled out and also shows the distribution of vaccines?	
<input type="checkbox"/>	Has documentation of the number of vaccines used and wastage rates for the site.	
<input type="checkbox"/>	Reviews vaccination records to ensure they are acceptable documentation; rejects records of questionable authenticity	
<input type="checkbox"/>	Has enough supplies of AD syringes, vaccine and diluents, mixing syringe, safety boxes adequate as per the projected work plan?	
<input type="checkbox"/>	Exhibits knowledge of how to complete "Vaccination Documentation Worksheet" (DS-3025) and immunization section of DS-2053	
Knowledge of Technical Instructions		
<input type="checkbox"/>	Knows the proposed vaccine schedule for the pilot program or has it easily accessible for quick reference	
<input type="checkbox"/>	Knows general contraindications and/or precautions for vaccinations being used or has a list of them for quick and easy reference.	
<input type="checkbox"/>	Understands how to fill out the contraindication/precaution checklist and can demonstrate how to fill it out	
<input type="checkbox"/>	Can identify common Adverse Events Following Immunizations (AEFI)	
Cold Chain Maintenance and Supply		
<input type="checkbox"/>	Has a copy of CDC's Vaccine and Storage Handling Toolkit 2012 available	
<input type="checkbox"/>	Uses appropriate freezer and refrigerator, or refrigerator with freezer unit	
<input type="checkbox"/>	Keeps a calibrated thermometer in refrigerator and freezer to monitor temperatures	

Domestic Evaluation of the Overseas Vaccination Program

- **Objective**
 - Was overseas vaccination information received? How?
 - Over-vaccination? Under-vaccination?
- **Methods**
 - Collaboration with 17 state refugee health coordinators & cooperative agreement partners
 - Review sample of 1,500 refugee records that resettled from 5 countries to 17 domestic states



Summary: MMR Results

<u>Objective</u>	<u>Results</u>	<u>n</u>	<u>%</u>
Overseas Documentation	State received overseas documentation	972	87
Domestic Vaccinations	Appropriately vaccinated	829	85
	Under-vaccinated	37	4
	Over-vaccinated	94	10
	Inappropriately vaccinated	12	1

n=11 → born before 1957

n=1 → medical contraindication



Registry Project

- **Electronic transfer of refugee overseas and domestic vaccination information from refugee health screening clinic databases into state immunization registries**
- **Adding unique refugee identifier to the state registry**
- **Assessment of coverage and completion rates over time**
- **Pilot in 5 states: Colorado, Kentucky, Massachusetts, Minnesota, New York**



Vaccination Program: Summary

- **First implemented in December 2012**
- **Now fully operational in 8 countries**
 - **Covering ~50-60% of U.S.-bound refugees**
 - **Implemented in Thailand, Malaysia, Nepal, Thailand, Ethiopia, Kenya, Rwanda, Uganda**
 - **Other countries in process**
- **In 2013-2015, >100,000 refugee beneficiaries to date, ~700,000 doses of vaccine**



Vaccination Program: Next Steps

- **Overseas**
 - **Update schedule periodically based on vaccine availability and U.S. schedule/ACIP changes**
 - **Monitor/respond to VPD outbreaks**
 - **Identify/address cold chain issues**
 - **Enhance staff training and health education for refugees**
 - **Improve adverse events reporting**
- **Domestic**
 - **Promote awareness of program**
 - **Improve U.S. clinician access to vaccine records via EDN**
 - **Establish linkages with state registries**
- **Expand to other countries overseas**



Program Expansion

Tier	Countries	Status	Comments
Tier 1	Ethiopia, Kenya, Uganda, Malaysia, Nepal, Thailand	Complete, in M&E phase	Large IOM programs
Tier 2	Rwanda, Burundi, Tanzania, Chad, Zambia, Jordan, Iraq, Slovakia, Romania, Former Soviet Union, Indonesia, others	Initial assessment and implementation phase in FY 2016	Smaller IOM programs, panel physicians may be subcontracted by IOM
Tier 3	Turkey, Egypt, Lebanon, Austria, Malta, other countries	In discussion	non-IOM panel physicians

Thank You!
Questions?

