Vaccination activities in Médecins Sans Frontières

Photographs by Phil Moore, DRC, 2014

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Outline

1. MSF movement
2. MSF vaccination policy and activities
3. Vaccination in emergencies (reactive and preventive)
4. Contribution to routine vaccination
5. Challenges and opportunities encountered
6. Vaccination-related advocacy
7. Monitoring, evaluation & research

MSF movement

- **Organizational structure**
  - 24 associations
  - **5 operational directorates for humanitarian assistance programs**
  - 3 supply centers
  - 1 movement: shared name, shared commitment to the MSF Charter and principles, and shared membership of MSF International

Medical research

- Epicentre: epidemiological support to MSF field teams
- Other research units: Manson Unit, SAMU, LuxOR

Advocacy and policy work: Access Campaign

- More appropriate medicines, lower drug/vaccine prices, research and development of new treatments, and the removal of trade and other barriers to accessing treatment.
- Focuses on MSF medical priorities, including vaccines, tuberculosis, HIV/AIDS, NTDs, Hepatitis C, and diagnostics

Some figures about MSF

Context of Intervention

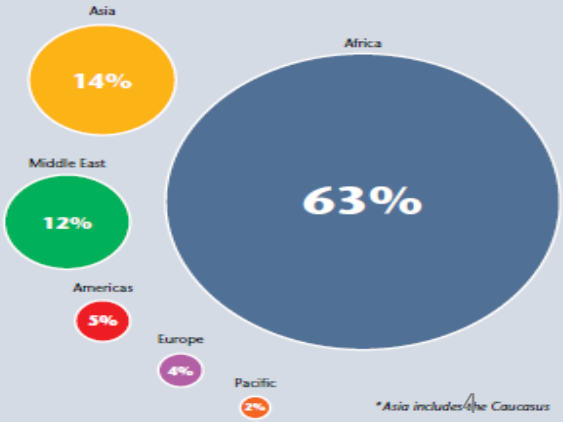
Number of projects

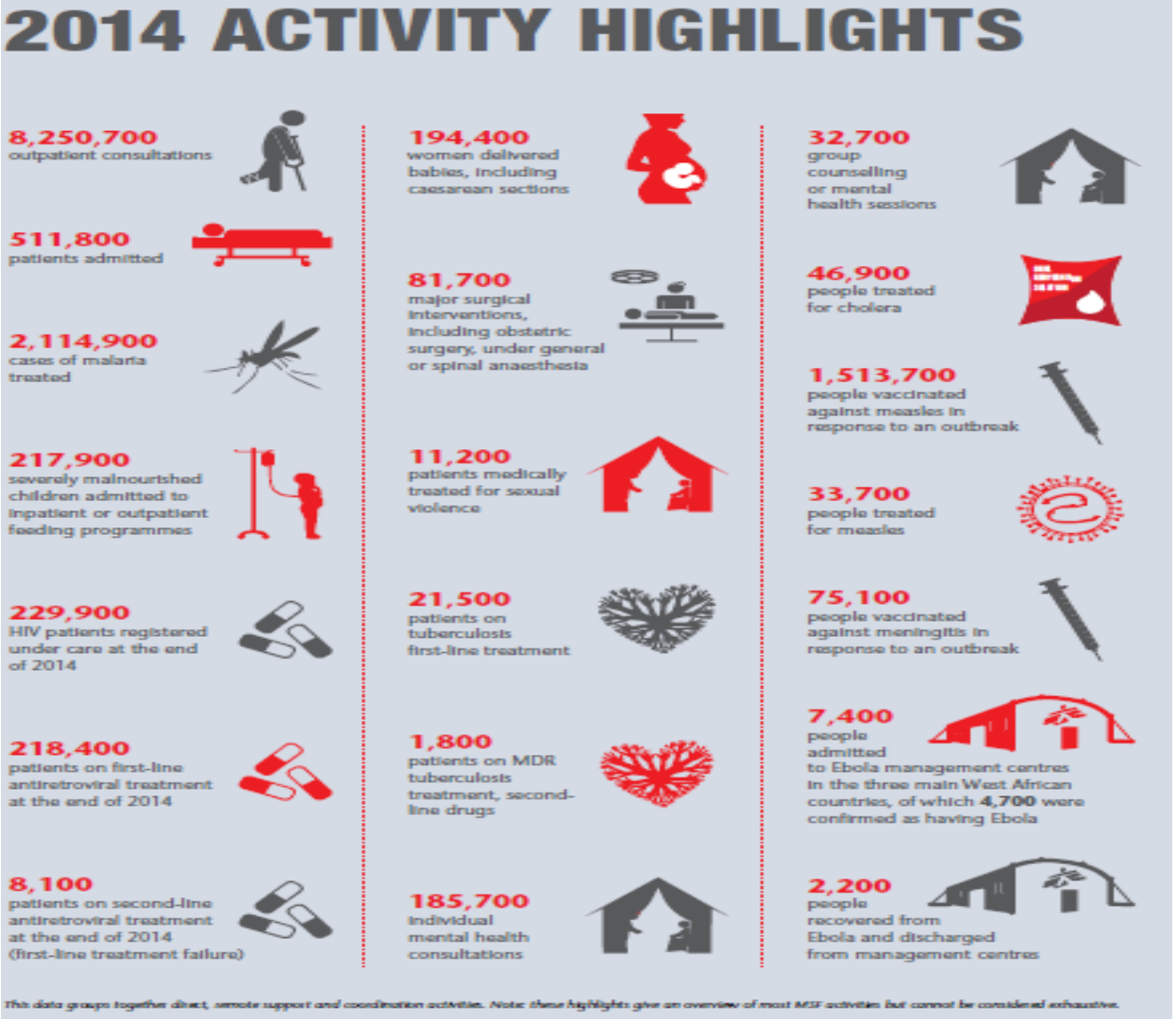
Stable	157
Armed conflict	120
Internal instability	86
Post-conflict	21

Project locations

Number of projects

Africa	240	Americas	20
Asia*	55	Europe	16
Middle East	47	Pacific	6





2014 resources

-Income

- 1.280 million € - 89% private donations

- Human resources: 36 482 positions
  - International staff: 2 769 (7 086 international departures)
  - National staff/hired in country: 31 052
  - International office, operational directorates and associations: 2 661

MSF vaccination background

MSF Vaccination Policy Paper

July 15, 2007

In the past several years, MSF has focused more on medical activities that involve direct patient care. Vaccination activities have been considered a preventative public health measure deemed to be the responsibility of the Ministry of Health and supported by UNICEF. However, in most MSF contexts the health infrastructure is weak or collapsed and immunization coverage remains insufficient to prevent disease and outbreaks. With the exception of responding to epidemics, MSF has neglected vaccination activities in the projects. This not only relates to traditional and underused vaccines, but also the newer vaccines. As a medical organization that provides health care to populations, it is not acceptable to ignore such an activity that is so effective in preventing significant disease and death.

This vaccination policy describes where MSF aims to be regarding vaccination activities in projects within the next three years. The accompanying strategic document[1] illustrates the framework to reach the policy recommendations. Operationalization of the policy requires contextualization and design of appropriate/relevant interventions in MSF projects based on this policy position.

Background Information

It is estimated that approximately 2 million deaths annually are due to diseases that are preventable by vaccines currently recommended by the World Health Organization.[2] Of these deaths, approximately 1.5 million occur among children under the age of five. An additional 2.1 million deaths, of which 1.1 million were children, are estimated to be due to pneumococcus, meningococcus and rotavirus.[3] For these infections, a vaccine is either currently available or will be in the near future.

The use of immunization to prevent infectious diseases is one of the most cost effective medical interventions in public health. Over the past decade, global immunization coverage rates have been rising marginally. However, in the poorest parts of the world, the coverage rates for traditional vaccines[4] have been drastically declining since the 1990s. In recent years, MSF has been confronted with outbreaks in open as well as closed situations in these areas.

Inequality remains in access to immunizations. Large population groups do not receive any immunizations or only the first vaccines of a series, remaining partially protected. Vaccines routinely used in industrialized countries like Hepatitis B and *Haemophilus influenza* type b have been slow to be available and used in low-income countries. Newer vaccines (Meningococcal and Pneumococcal) are expensive and in many countries, not affordable. The cost of immunization will only increase as countries include the newer and more expensive vaccines in their programs, further widening the imbalance.

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MSF vaccination policy

Vaccination policy adopted in 2007

- Include vaccination in MSF projects:
  - Vaccinate with more antigens (new and under-utilized vaccines)
  - Extend target age group
  - Alternative strategies to increase coverage
  - Vaccinate specific groups – victims of sexual violence, wounded, malnourished, etc
- Respond to outbreaks:
  - Surveillance, case management and vaccination
  - Preventive campaigns to prevent outbreaks
- WHO prequalified vaccines (research could be an exception)

MSF vaccination activities

Emergencies

Outbreak response

Preventive vaccination

Routine

Direct implementation or support according to needs

Focus on:

- Extension of target age group
- Vaccinate with more antigens
- Specific groups

Research

Advocacy

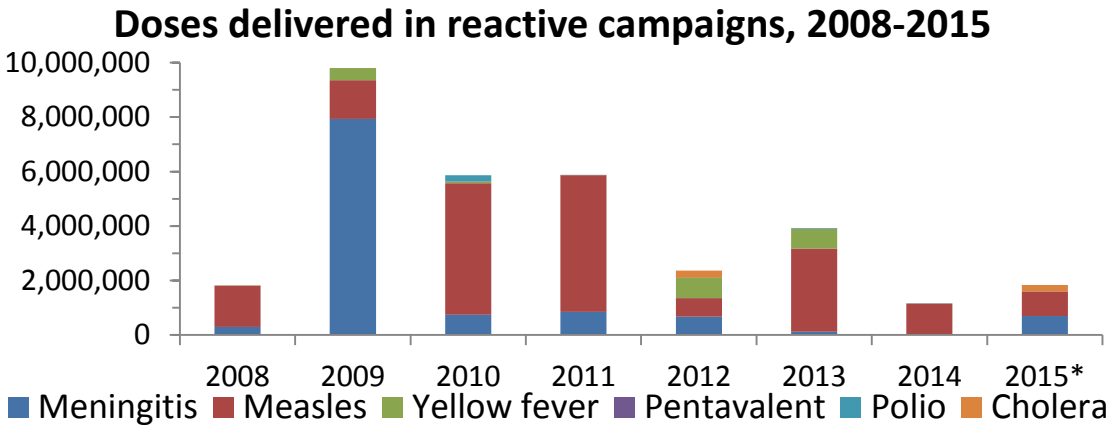
MSF vaccination in numbers

Evolution of MSF vaccination activities, doses delivered 2008-2014

	2008	2009	2010	2011	2012	2013	2014
Response to outbreaks/epidemics	1 817 957	9 530 871	5 630 285	4 970 623	2 368 839	3 928 079	1 196 508
Preventive campaigns emergencies				76 064*	79 838*	312 972	630 760
Routine vaccination	1 229 897	1 200 894	1 206 712	1 595 883	1 707 794	2 406 618	2 041 532
Post-exposure prophylaxis	18 240	31 688	50 248	66 466	61 413	77 285	70 557
Total doses administered by MSF	**3 066 094**	**10 763 453**	**6 887 245**	**6 709 036**	**4 217 884**	**6 724 954**	**3 939 357**
Doses supplied by MSF supply centers	4 070 485	6 527 823	9 673 319	5 925 469	3 481 634	3 868 707	3 258 710

Outbreak response

Outbreak response



Examples in 2015:

- Measles	DRC, Chad, Sudan, CAR, Niger
- Meningitis outbreak due to meningococcal group C	Niger and Nigeria
- Cholera	South Sudan and Tanzania
- Pertussis	Sudan

International Coordination Group

- Created after worldwide shortage of meningococcal vaccines after the Nigeria meningitis outbreak
- A mechanism to try to cope with vaccines (relative) shortages in case of outbreak

Epidemic meningitis	Yellow fever	Cholera	Ebola
1997	2000	2012	2015?

- ICG members: WHO, UNICEF PD, IFRC & MSF
- Additional expertise and technical advices provided by a range of partners
- All members have a similar role in ICG: review requests and independently decide on vaccine allocation – participate to the discussion to inform on vaccine needs for the following years

Preventive vaccination in emergencies

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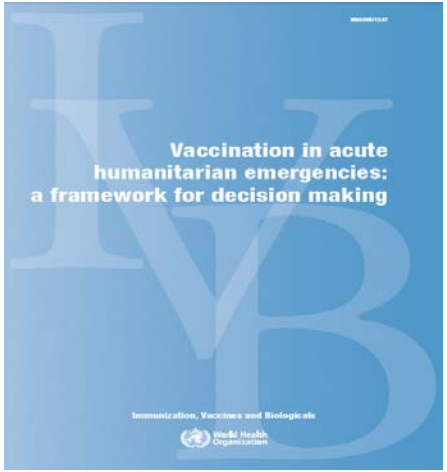
Preventive vaccination in emergencies

- Measles vaccination is one of top 10 priorities in emergency situations since many years
- New WHO recommendations[1] for extended vaccination package according to risk evaluation

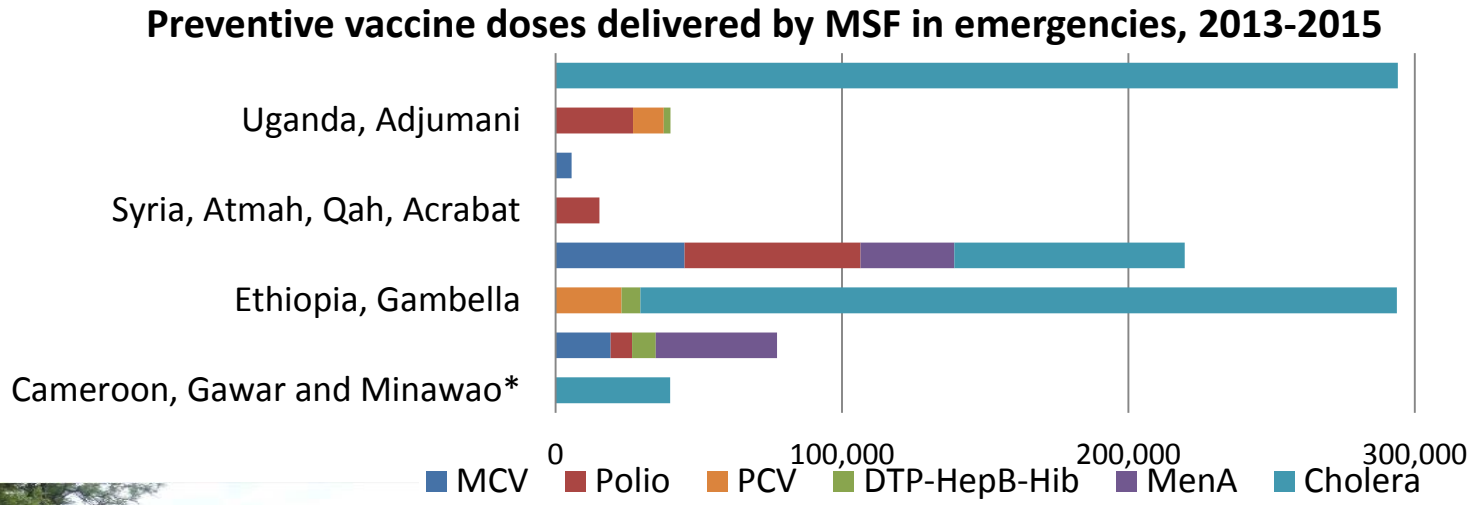
Framework document to decide what vaccine would constitute high priority public-health interventions to reduce avoidable death and disease in emergencies
MSF focus on vaccine-preventable diseases to:

- Reduce risk of outbreaks
- Reduce morbidity and mortality
- Reduce hospitalization



[1]WHO (2013). Vaccination in acute humanitarian emergencies: A framework for decision making. WHO, Geneva.

Preventive vaccination in emergencies



Ex: Gambella refugee camps

- Inter-ethnic conflict South Sudan (Dec 2013)
- Ethiopia: Gambella region
  >1,000 arrivals/day; 67% children
- Context: morbidity, living conditions, rainy season, cholera in South Sudan, new arrivals

Proposal OCV / PCV and DTP-HepB-Hib vaccination + Case management + Water & sanitation

OCV campaigns: 2 rounds 2 weeks apart → 195,930 people vaccinated

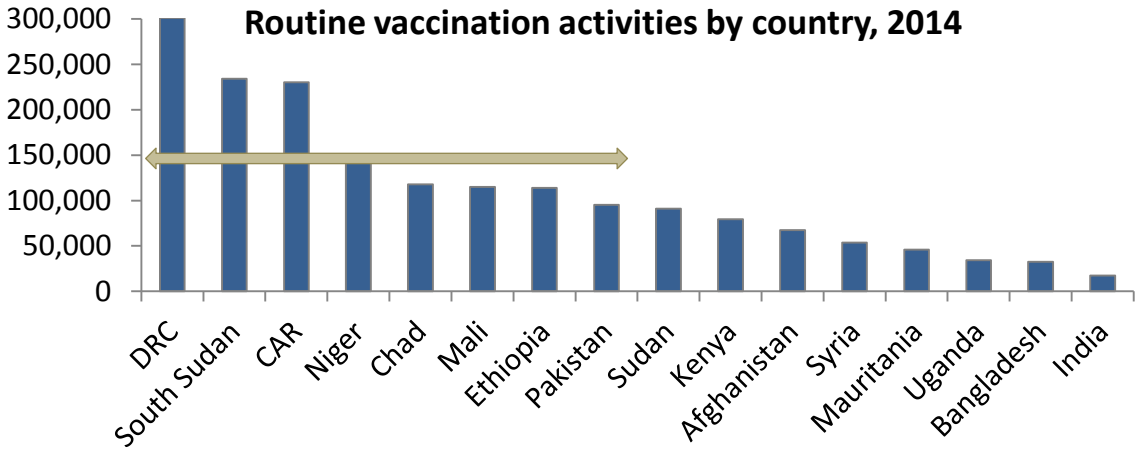
PCV and DTP-HepB-Hib campaigns: 2 rounds 8 weeks apart & 3rd dose in EPI

→ Target: 18,000 6w to 23m for Penta and 40,000 6w to 59m for PCV

Routine vaccinations

Routine vaccinations

- 40% of projects (30 countries)
- 70% doses administered in 8 countries
- Alternative strategies:
  - Combination with other preventive activities
- Post-exposure prophylaxis:
  - Snake bites: Paoua in CAR & Agok in South Sudan



MSF challenges in vaccination

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Operational challenges (1)

- Outbreak response:
  - Vaccines availability increasingly problematic:
    - For meningitis: new outbreaks (meningococcal C)
  - Outbreak response strategy – not really evidence based yet for some diseases
  - Coordinated complete response package (surveillance, free treatment, information and vaccination)
  - Campaign tailored to reach desired coverage (not-fixed duration)
  - Linked with EPI reinforcement

Operational challenges (2)

- Preventive vaccination in emergencies:
  - Opportunities missed to introduce more vaccines in the acute phase of an emergency
  - Lack of awareness of WHO recommendations[1] and resistances
  - Cost and availability of some vaccines
  - Competing health priorities
  - Complex schedules
  - Adapted strategies (campaign, strong EPI support, combination)
  - Importation of vaccines in some countries
- Logistic constraints: cold chain requirements and supply
- Security

[1]WHO (2013). Vaccination in acute humanitarian emergencies: A framework for decision making. WHO, Geneva.

Operational challenges (3)

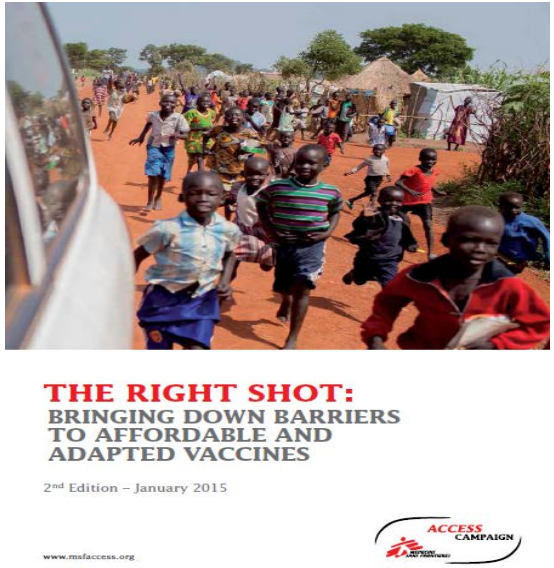
- Routine
  - Extension of the target age group
    - Lack of clear written national policy for interrupted/delayed immunization
    - Lack of vaccines to apply WHO recommendations for interrupted or delayed immunization
    - UNICEF/Gavi role supporting flexibility out of the traditional target age group
  - Introduction of new vaccines: PCV, HepB birth dose
  - Use of data (vaccination coverage, morbidity) to readjust activities
- Post-exposure prophylaxis
  - Limited supply and cost

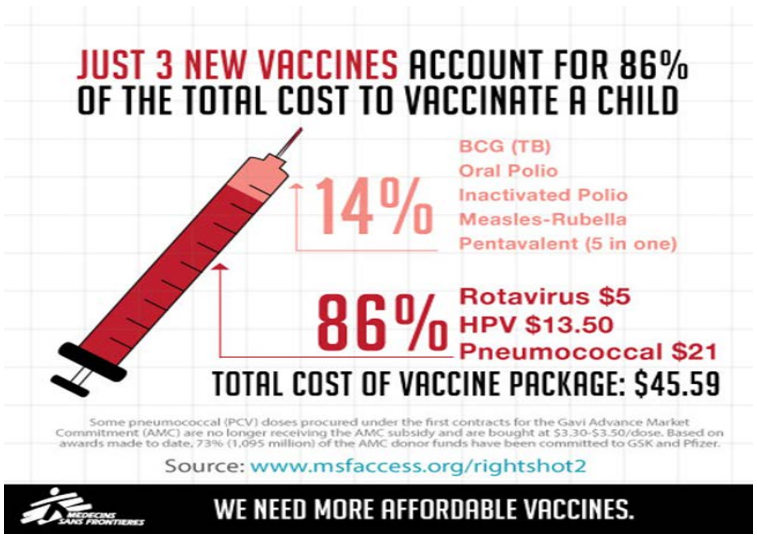
Advocacy

http://www.msfaccess.org/bestshot/

Affordable vaccines

- The cost to immunize a child is now 68 times higher than in 2001
- Price of new vaccines (PCV, RV, HPV) unaffordable
- MSF advocates for:
  - Lower-cost competitors to drive the price of vaccines down
  - Greater transparency in vaccine pricing





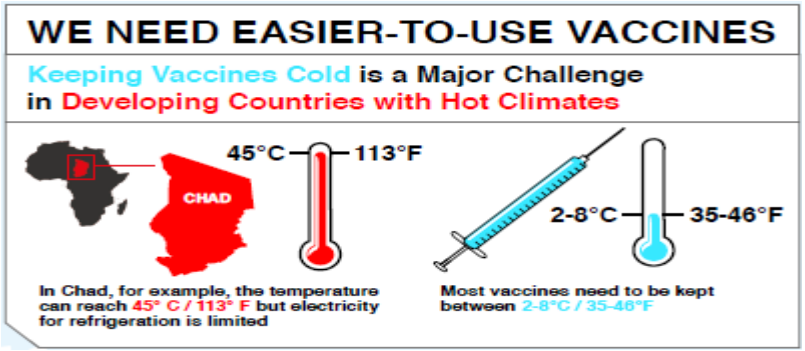
Vaccine accessibility

- Many children miss their full schedule:
  - MOH do not include WHO recommendations on interrupted/delayed immunization
  - Gavi/donors don't fund routine vaccines aligned with WHO recommendations
- Vaccination of refugee populations: Pharmaceutical companies nor Gavi do not extend the lowest global prices of new vaccines to humanitarian organizations
- Vaccine supply
  - Complex and lengthy process for some vaccines
  - Cholera: one main supplier and global shortage
- Poor access to post-exposure prophylaxis (animal bites, injuries)
  - End of production of Fav-Afrique antivenom and lack of a proved effective and safe replacement

Field adaptation

Product suitability: optimizing field ‘adaptation’

- Heat and freeze stability
- Simplified administration
- Fewer doses
- Improved efficacy of oral vaccines
- Most efficacious antigen combination
- Reduced volume



Monitoring, evaluation and research

Program monitoring and evaluation

- In routine vaccination activities:
  - Pre and post implementation coverage surveys
  - Missed opportunities evaluations
  - Evaluation of vaccination in specific projects (reproductive health, sexual violence, nutrition)
- In vaccination campaigns (preventive and reactive):
  - Post-campaign coverage surveys

Research to advance adaptation/simplification

- Immunogenicity and safety of TT in Controlled Temperature Chain in Chad
- Assessment of new delivery devices
- Oral cholera vaccine in South Sudan: impact of single dose in outbreak response /lessons from field implementation
- Measles in DRC: operational strategies
- Impact of PCV vaccination in refugee camps
- Surveys on nasopharyngeal carriage of *Streptococcus pneumonia*
- Burden and epidemiology of rotavirus disease in Niger

Research on new vaccines

- New vaccines/products:
  - On going:
    - Rotavirus pentavalent vaccine (BRV-PV), phase III trial in Niger
    - Involvement in the Ebola rVSV-ZEBOV vaccine trial in Guinea
    - Antivenom alternative for African countries in CAR
  - Plans/ideas:
    - Hepatitis E in outbreak response
    - Meningococcal polyvalent conjugate vaccine

- In order to participate in “closing the GAP”, we need:
  - Flexible policies (international and national) to fill local gaps
  - Support from international and national partners to increase the implementation of preventive vaccinations in emergencies
  - For new vaccines:
    - MSF would like to have access to new vaccines at an affordable price directly from the manufacturers
    - Need of adapted vaccines (composition, thermostability, presentation, etc)


Thank you
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