Does MSF vaccinate too much or too little?

In terms of the number of patients, immunisation weighs heavily on MSF:
4 million out of a total of 7.
But in operational terms, only one in five of our missions has an immunisation activity.

Prevention is better than a cure.
Then why continue chasing after epidemics rather than doing routine prevention? Without actually getting involved in extended immunisation programmes at national level, reducing the number of missed opportunities is a challenge we can meet.

There are other issues worth discussing:
Should we be vaccinating even more people? How can we mobilise other “vaccinators” and attract donors? What new vaccines should we be using? How can we boost research? This special Borderline feature on “Vaccines” sets out the operational choices, raises the issues and looks at future possibilities for MSF.

Today, 75% of MSF’s immunisation activity is in response to an epidemic, and only 25% is for prevention purposes.

Thank you to everyone who contributed to this issue!

* Searching for the lost EPI!
**Why does MSF vaccinate?**

A debate held Tuesday 15 November, in Paris.

Why do we vaccinate? What are our aims and strategies? Prevention, responding to epidemics...or worse, are we vaccinating because we don’t know what else to do?

**“REACTIVE OR PREVENTIVE VACCINATION?”**

Rony Brauman

There is no natural role for MSF in vaccination, there is only the role that we want to make for ourselves. Were we right to battle amongst ourselves up to this point, whether talking about measles or meningitis, only to impose a standard response to epidemics based on a vaccination model? Was this the right strategy? Does vaccination depend on the vaccine? Is vaccination in and of itself an activity that is defensible or open to criticism?

**“MENINGITIS VACCINE: BLIND FAITH”**

Claire Magone

It does seem that the cerebrospinal meningitis epidemics cannot be broken by anything other than environmental controls. In the meningitis belt, the epidemics form a bell curve; the curve breaks very clearly at the end of May, whatever anyone does. The idea that you can contribute to the decline of a meningitis epidemic by vaccinating is just blind faith.

**“THE IMPACT VARIES DEPENDING ON THE LEVEL”**

Brigitte Vasset

When you look at the epidemic curves, they’re not the same from the point of view of country or town level. Meningitis and measles epidemics are a succession of attacks, so if you observe this at too broad a scale the curve is never broken.

**“INTERVENE, EVEN IF THE AUTHORITIES HAVE THE MEANS?”**

Norbert Ebenga

In Chad, there have been polio cases in different districts since the beginning of the year, but we judged that we didn’t want to vaccinate, for reasons including that the financing is there. But the activity wasn’t well organised, so we provided vehicles to maintain the cold chain. So, what about next year? It doesn’t bother me that we might do it again, because it doesn’t bother me to repeat things, especially when there is the means behind it.

**“URBAN ZONES FIRST!”**

Florence Fermon

In urban zones, if you intervene quickly enough you can break the epidemic curve—we have examples of this! Sometimes—we saw it in Chad—you want everything to be under control. As a result you end up spending a lot of time in areas where you have little impact rather than in areas where you can hope to have impact.

**“VACCINATING WHEN WE’RE ALREADY THERE”**

Michel-Olivier Lacharité

In Mali, in Konsegue, we had a dropout rate of less than 3% between the first and the third dose of the vaccine, thanks to the useful activity we have in place with the agents palu (malaria officers), and to having made the vaccinations available. This is one of the most powerful results of the project. Before thinking about vaccinating against polio in Chad there are areas where we can improve within our current interventions.

**“WE NEED TO BETTER DEFINE OUR OBJECTIVES”**

Francisco Luquero

We often measure our impact by the number of cases averted, but is that really an indicator that tells us something? Because, the number of cases averted is not always the objective of our vaccination activities; sometimes, it’s the mortality that’s been averted. We have to make an effort to redefine the objectives of our vaccination activities.
Thresholds: are they a reliable indicator?
The threshold represents the relationship between the number of cases and the number of population. The epidemic threshold for meningitis is reached generally at between 10 and 15 deaths per 100,000 inhabitants, whereas the alert threshold is met at 5 per 100,000. So should we vaccinate? For a population of 30 000, when the number of cases doubles from one week to the other, it indicates a starting epidemic. The difficulty lies in the reliability of the data: surveillance systems have enormous gaps, and population figures are not always reliable themselves.

“What Are We Doing Between Epidemics?”
Laurent Sabard
In 2005 we vaccinated the whole city of N’Djamena, and five years later we did the same thing again. If we continue like this, we can re-issue our order for vaccines for 2015. The question from the point of view of the operational plan is, what do we do in the period between epidemics? In places where we are present, shouldn’t we rather organise preventive vaccination campaigns? But how do we do it at the level of a capital city, or a whole country?

“What Happens to the Cases We Treat?”
Northan Hurtado
There were 15,000 cases of measles in France this year, with six deaths, which is a very small number. But there were also 700 serious pneumopathies and significant neurological complications, which are expensive to treat. In DRC, we record the mortality, which varies between 1 and 5 per cent, but we never tally the complications. We always talk about the number of people vaccinated, but very rarely about the cases treated.

“Defining Our Objectives: A Political Choice”
Andrea Minetti
Averting cases…we’re all agreed on that. But we should also make some choices that are more political. Do we only want to vaccinate in the regions where we’re intervening, or do we want to go beyond that and take on the aim of reducing mortality? The best strategy in that case would be to limit ourselves to vaccinating under-3s and avert deaths principally amongst these small children. Once we’ve done that, if we have the will and/or the means, we can go further.

“In Terms of Prevention, Our Role Is Not Clear”
Marie-Noëlle Rodrigue
Getting involved in EPI is not our thing. But where is our place in mass preventive campaigns? We want to avert deaths, cases, the consequences—why not epidemics? The problem is that we are confronted by the ministries with their own rationales and by financing mechanisms which are difficult to understand. When there are no cases, why would you do a mass vaccination of 200,000 people? That’s where our role is not clear.
Expanded Programme on Immunization: time for change?

Debate held during the 2011 International symposium on reducing child mortality, in Melbourne, on November 15th.

"DISEASE RESURGENCE TESTS TRADITIONAL MODELS"

Rebecca Freeman – We currently have a resurgence of vaccine-preventable diseases, especially in sub-Saharan Africa, but how much of this resurgence is due to the disease itself, to the vaccine, how the program is structured, or to the financing? What new technologies or new vaccines can be used to address high-burden disease in these contexts? Are there different ways to incorporate vaccines into health programs, and what role can health professionals play themselves in terms of addressing the needs of specific populations?

"WE CAN’T GIVE UP LIGHTLY"

Emmanuel Addo-Yobo – There is an issue of sustaining even the levels of coverage that we have, and going higher than 90%—or getting close to 100%, which of course is not possible. This is because we have defaulters, we have distance, we have missed opportunities. There are a lot of contraindications for immunisations, but a lot of times people will use the slightest excuse not to immunise.

"PREVENTION STRATEGIES ARE WELCOME!"

Balcha Masresha – I’m now seeing that there is some willingness and openness to move to include prevention as part of MSF’s arsenal of tools in the field, and that is very welcome. It helps us strike a balance between the long-term strategic, preventive approach and the need to engage in rapid response to outbreaks, aggressive case management and saving lives. These are complementary approaches towards disease control.

"AWARENESS IS A TOP PRIORITY"

Rajiv Khana – It is very critical in implementation programs, whether they are done with new technology or older technology. Also, once education is made part of the implementation program, you will get much better success. Whether it’s MSF or somebody else. But unless you make the public aware that this can be implemented, you can create 100 other new vaccines, you’ll have little results. Awareness has to be the one of the major tasks in stopping the outbreaks. One of the benefits of MSF as an organisation is that the awareness is very critical; we know awareness comes if an organisation brings data about disease prevalence, and if convinces the government agencies and other primary agencies to put money into that.

"DON’T LET VACCINE WASTAGE FRUSTRATE IMMUNISATION"

Balcha Masresha – Any child eligible for a measles shot who presents to a health facility is supposed to benefit from a measles vaccine. But that doesn’t happen always. Health workers in some countries want to have a minimum of 7 or 8 kids before they open a 10-dose measles vaccine vial, in the interest of minimising vaccine wastage. It’s difficult to expect a mother to come back the next morning, or after two days… One possibility to address these concerns is to move from a 10-dose to a 5-dose vial.

"DISPLACEMENT THREATENS COVERAGE"

Linus Ndegwa – In terms of coverage in Kenya, I know our immunisation is not 100%, but there have been quite a lot of efforts to improve that. Kenya has a lot of refugees coming from Congo, Sudan, and Somalia. During the last two years, there have been outbreaks in those refugee camps, of polio and measles. The government has been trying with all their effort to confine the refugees in the refugee camp, but they contribute to the global burden with which we’re dealing.
How can you explain the new measles epidemic outbreaks during the last three years?
We started from very far. There was a strong mobilisation; measles was introduced into routine vaccination. So, there was an improvement during the first years. However, the first stage is the most difficult. Immunisation coverage was not sufficient and the number of cases increased during the last three years due to funding problems. And also the strategies initially planned reached their level of fatigue. We shouted for victory too early.

Is there a problem with the vaccine, or is it just the practice?
It is not a bad vaccine, for sure. The problem is that we have failed to reach the people we should vaccinate. Routine vaccination is not sufficient; we need to regularly conduct catch-up campaigns. But such campaigns do not always happen. The number of likely cases increases progressively and we end up with an epidemic.

What is the part of responsibility of national health authorities?
The EPI (mass vaccination programme) is part of their responsibility. They also should provide 50% of operational funds - the rest being funded by the Measles Initiative - in the event of a catch-up campaign. The rest is a matter of political choices, a matter of priority: some countries, which are not rich, such as Chad, do put money into catch-up campaigns, while others, like DRC, don’t.

What about international health actors?
The Measles Initiative has done a lot for the decrease of the epidemic, but has not done enough to renew its strategies. There are people who never get vaccinated. While others, the same people every time, are revaccinated. On the ground, the international health actors have been somehow too much on the wait: we were sure epidemic would come back, and it has not been anticipated; response mechanisms were not in place.
What is wrong with current strategies?
We focus on the 9 to 11 month period, because this is when the vaccine is most efficient. Every time a child is received for consultation, even if he is above 11, we could seize the opportunity to vaccinate him/her, at least till the age of 5. It is a WHO recommendation, but it is not followed anywhere. Everything is so standardised that there is no more room for flexibility.

In terms of advocacy, what levers can MSF activate?
We launched several actions, at various levels: in DRC itself, to warn and mobilise actors on the ground (WHO, UNICEF, MoH). We used press releases based on data provided by Epicentre to ring a bell and say it’s time for people in charge to take responsibility, because the epidemic is about to spread. There was also an action launched from the head office, with the WHO in Geneva and New York. We also warned donors that it was necessary to make funds available to respond to emergencies, as we believed epidemics were about to break out. It all worked fairly well. The WHO and the UNICEF gave money and conducted epidemic-response and catch-up campaigns.

What did we do in DRC, with one person stationed in Kinshasa for this purpose, and a backup linked to operations and the medical department, enabled us to keep a constant pressure. Medical advocacy is not something we’re used to at MSF France; it would be interesting to have people work on it.

In DRC, MSF changed its vaccination strategy midway, why?
The initial strategy, according to a common intersection agreement, was to vaccinate all children aged 6 month to 15 years. But when an Epicentre backup team came to investigate the epidemic in every health zone of intervention, we realised that we could go beyond the standard “6 months - 15 years” scheme and adapt our response per age groups. If, in a given zone, prevalence was stronger amid the under 10 population, why vaccinate above this age? Bonus: lighter logistics and less costly campaigns.

What prevented us from adapting our response?
We clashed with other sections which questioned the OCP strategy. We had to abide by the standard “6 months – 15 years” scheme and adapt our response per age groups. If, in a given zone, prevalence was stronger amid the under 10 population, why vaccinate above this age? Bonus: lighter logistics and less costly campaigns.

The results are here, but the approach remains new for MSF. In other countries, we faced the same problematic, but the strategy has never been questioned. We had to abide by the standards. I think of Malawi for instance.

The epidemic resurfaces every 5 years. How do you explain this cyclic trend?

As to implementing a large scale preventive vaccination project, I do not think this is a mission for us. We are not in DRC to be a substitute for government. Wouldn’t our role rather be to lobby to push authorities to face their responsibilities? The impact would be double if we make them understand the need for the government to provide the necessary funds to ensure regular campaigns are conducted.

North Kivu spared

For years, MSF has systematically vaccinated against measles in the province’s refugee camp. All children have accordingly received one or more doses. During the 2011 epidemic, the area was spared by measles. “Despite circumstances and reasons for which vaccination was conducted during those war years, the North Kivu example proves that the vaccine works and that catch-up campaigns allow to prevent cyclic epidemic trends”, says Laurent Sabard.

1. The Measles Initiative includes the UNICEF, the American Red Cross, the World Health organisation, the UN Foundation and the American Centre for Disease Prevention.

Their strategy: that all children receive two vaccine doses before the age of one, the reinforcement of disease surveillance systems, and making efficient treatment against measles available.
“Ready-made strategies should be avoided”

Andrea Minetti, Epidemiologist at Epicentre

MSF vaccinated 3.3 million people in Malawi in 2010, and the same number in DRC in 2011, using the same strategy for radically different contexts.

With the launching of EPIs (mass vaccination programmes) in 1980 and the 2000 Measles Initiative, many African countries have seen the recurrence of the measles epidemic decrease. Malawi has set an example in this regard. The coverage rate in terms of routine vaccination is higher than 95% (all age groups included) and supplementary immunization activities are happening every 3 years.¹

In 2010, however, 130 000 cases were counted in the country, a figure similar to those registered before the EPI. This was due to one main reason: the measles vaccine only works in 70% to 90% of cases, depending on the age at the time of the shot. Even with a coverage rate of routine vaccination at 100%, with a second shot opportunity later, not all children develop immunity. Progressively, the number of the non-immune adds up to those of the previous year, and again the following year, to ultimately constitute a cohort of “likely” cases.

DRC, MALAWI: TWO DIFFERENT CONTEXTS

In Malawi, with 30% of cases above 15, all age groups were affected. In countries like DRC, where epidemics are regular, populations have a natural immunity, acquired with time. Young children are accordingly the most affected.

MSF, however, has implemented exactly the same strategy in both countries: systematic vaccination of the 6 months to 15 years cohort. In Malawi, the choice excluded those above 15, although they were sick and contagious. Moreover, among this population, which already benefitted from a mass vaccination, the rate of the primo-vaccinated we approached was low. In the best of cases, MSF gave a second dose to those who failed to react to the first shot.

But, with no selection of patients and no verification of their vaccination records, we vaccinated for the third, or even the fourth time. Many people who were already immunised. So this was a useless action. Conversely, in DRC, we mobilised significant resources, but to vaccinate age groups above 10 already protected by their own natural immunity.

MSF SHOULD GO “TAILOR-MADE”

Our ready-made strategy, “6 months – 15 years”, cannot work everywhere. In Malawi, we should have vaccinated the over 15 to cover all cases. But is avoiding new cases, namely among adults at low risk of death, a sufficient target? How to better rationalise our human, financial and logistic resources? Shouldn’t we adapt our strategy to the contexts of intervention?

In Malawi as in DRC, MSF has not managed to stop the epidemic. What is the real impact we have? What are the reasons that would drive three sections to vaccinate millions of people? In DRC, OCP was the only section to limit the target population to 6 months to 10 years, but at a late stage and only in four health zones of the Katanga province. Once again, the objective was to limit the number of cases. In a country with very limited resources, where infant mortality rates are already high, shouldn’t the focus be solely on the high risk population, which means vaccinating primarily the under three.

CHOOSE THE COUNTRIES OF INTERVENTION

In my opinion, MSF should absolutely adapt its response to the context and the epidemiology of the country. It should also study the surveillance data to better identify the risk population and analyse the age of the first cases. In other words, it should not go with a ready-made strategy, made “here” which would not work “there”.

Finally, priority should be given to countries where health authorities are not able to conduct such campaigns, where mortality is higher, where access to healthcare is problematic and where malnutrition is aggravating factor, etc…. In DRC, as in South Sudan, or Chad for instance, MSF has a real role to play.

1. Reinforcement of routine vaccination to give a second chance to those who have not benefited from EPI or who have not been immunized by the first injection.

¹ 1980
Measles killed 2.5 million people.

² 2008
Measles killed 165,000 people.

³ 2009
More than 60,000 cases and 1,000 deaths reported in Africa.

² 2010
More than 220,000 cases and 1,200 deaths reported in Africa.
Paoua: up to 100% missed chances to vaccinate

In the northwestern region of CAR, an assessment conducted in August 2011 showed that a number of eligible people were not vaccinated when they stopped at facilities supported by MSF.

In the brownish-walled corridor, mothers are waiting on overcrowded benches facing outpatient consultation rooms. They have with them a sick child, though sometimes they are accompanied by two or three more children, in good health. However, a large number of children at the Paoua health station, the only hospital of the sub-province, will not be vaccinated.

“Children with no vaccination cards were not vaccinated”.

The majority of patients will not even be asked. Some mothers who are asked to show the vaccination card of their kids would have forgotten to bring it – some kids never had one. Kids who are accompanying a mother, a brother or a sick sister will receive no particular attention.

NO CARD, NO VACCINE

During the day, there are tens of missed opportunities. Florence Fermon, vaccination referral officer, is in the corridor that day to understand why and how eligible people are not immunised when they come to the hospital or in one of the seven outskirt health centres supported by MSF.

“The day of the evaluation we noted that women and kids who presented no vaccination card were not vaccinated, she observes. Moreover, the medical staff did not verify the vaccination status of those people by asking them questions”. Other missed occasions included the healthy children in the company of their mothers. “In outpatient consultation, it happens that mothers living in remote areas show up with all their children, but only one is sick. The medical team is then focused on the sick child and omits to investigate the immunisation status of the others”, laments André Munger, desk doctor.

HOSPITALISATION, A RELATIVE CONTRAINDICATION

At the Paoua hospital, pregnant women and newborns are vaccinated daily by a midwife. In the other wards, in paediatrics and nutrition, vaccination is scheduled three
MSF in CAR

In March 2006, MSF intervened in the Ouham Pende, on the borders with Cameroon and Chad, in the northwest of CAR. In Paoua, MSF operates in all clinics of the main reference hospital and supports seven outskirts health centres.

In the southwestern part of the country, MSF was present in Carnot in 2009 to respond to a nutritional crisis. During the same period, evaluations revealed a large number of HIV and TB cases. In 2010, MSF redefined its project in Carnot to be able to offer medical care for these two diseases, which are behind a significant precocious mortality rate in the area.

In Paoua, as in other MSF facilities, often patients in inpatient care are not offered the chance to take advantage of their presence at hospital to get vaccinated. “What happens often in hospital is that a sick child might present a vaccination contraindication. But this contraindication is only relative, not absolute. When the child gets better, he should be vaccinated. What usually happens is that the child, once in a better condition, goes home without anyone thinking of offering to the mother to vaccinate him”, adds André Munger. Thus, we miss the chance of his presence to offer to him the routine vaccines.

VACCINES UNAVAILABLE

In the health centre, we face other difficulties, the main one being the unavailability of vaccines. This unavailability can be general. The day of the assessment for instance, yellow fever vaccine was out of stock in the whole country. Or local: cold chain deficiency, most of the time. In the seven health centres supported by MSF, vaccination activities are offered once a week thanks to the EPI being an access point for paediatric care. In 2010, MSF revealed a large number of HIV and TB cases. In 2010, MSF redefined its project in Carnot to be able to offer medical care for these two diseases, which are behind a significant precocious mortality rate in the area.

Vaccination activities started in 2007 in the city of Paoua and were progressively extended to outskirts health stations as of mid-2008. “The situation has changed a lot since 2006, with a clear improvement in security conditions. This makes access to health centres easier for the population and allows us to consolidate our support to health stations in the bush”, says Louis Albert Massing, Project Officer in Paoua. Vaccination coverage remains however very low.

MORE AWARENESS

Vaccination should, in theory, be offered systematically. “In Paoua, we observe a lot of deficiencies in the system”, notes André Munger. “We should have a good awareness of the staff, both nationals and expatriates, on the vaccination reality. All stages should be thought of according to this priority, which is to vaccinate when there is a chance to do so, and we should work for this to happen!”.

Efforts made by the medical teams should also be extended to information towards families, who should have their vaccination card every time they come to a health facility. The teams should also inform mothers of the available vaccines and their side effects (fever, slight swelling at the spot of the vaccine for instance), so they consent to be vaccinated or have their children vaccinated. When they are well-informed, many mothers themselves accept the vaccine.

The reality is that in a country like CAR, where the health system is extremely weak and human resources are very limited, MSF is a stand in for national health authorities. Access to health care, including vaccination, is extremely limited. With measles and polio epidemics present in border countries, importation risks are high and inadequate vaccination coverage heralds an epidemic outbreak in 2012. To remedy dysfunctions at the level of health structures, an analysis with the staff enabled the teams to propose solutions and ensure a regular and efficient follow-up. In addition, to prevent a measles outbreak, a vaccination campaign is organised in Paoua and its suburbs in January.
Méningitis: heavy artillery for what impact?
Claire Magone, CRASH

Meningitis is a disease which, when it reaches epidemic proportions, “attacks” a population on a scale less significant than measles or cholera, but it can be extremely lethal and have grave consequences (neurological consequences with psychomotor problems, loss of hearing and of sight). Thus it is a disease which kills, handicaps, and terrifies populations, including adults, but against which the mass vaccinations undertaken by MSF in the past 15 years have had very limited impact at least in northern Nigeria, where we have undertaken the largest-scale vaccinations in the history of MSF. It must be said that we have greatly improved in our reactive capacity since 15 years ago in terms of epidemic response: it was via the media in Paris that we learned there was a meningitis epidemic raging in northern Nigeria in 1996, whereas in 2009 we already had an emergency medical team on the ground that had developed a network of reliable medical contacts within the country’s health facilities who alerted the team when the first cases emerged. Also in 1996 we had faced a shortage of vaccines during the campaign but in 2009 we had a seat within the International Coordination Group which manages and allocates global vaccine stocks. Nonetheless, the impact of such mass vaccinations has remained very limited.

A SLIGHTLY EFFECTIVE VACCINE

How does one explain that although we’ve become quicker and more effective in the deployment of the necessary resources, we haven’t been able to obtain more significant results? First of all, development of an effective vaccine against meningococcal meningitis A which mostly strikes Africa, has been much less enthralling for governments and the pharmaceutical industry than a vaccine against meningitis C, which had raged in England and the US. While the polysaccharide vaccine against meningitis C was replaced by a conjugal vaccine in 1999, it took until 2009 for the conjugal vaccine against meningitis A to finally be developed. For many years, we thus satisfied ourselves with a vaccine that was ineffective in under-twos, slightly effective in under-fours, which induced a limited immune response, and did not eliminate carriage.

MENINGITIS: POLITICAL ADVANTAGE

Generally, health authorities see a political advantage in meningitis vaccination because, unlike cholera, malnutrition or measles, which point directly to a failure of the medical and health system, meningitis appears as a scourge whose arrival is out of their control, but against which they can organise a spectacular response. This is why the governments most stubbornly resistant to MSF’s interventions are more inclined to let us undertake a meningitis response, and attribute the beneficial outcomes to themselves, and it is also the reason why they push us to vaccinate in zones regardless of epidemiological considerations, to satisfy primarily societal pressure by presenting the response as socially equitable. Whatever our initial reactive capacity, our involvement in mass campaigns—at the level of vaccinating several million people—condemns us to a certain extent to vaccinating too many people, and too late. Since 1996, the assessments which followed the northern Nigerian campaign have recommended vaccinating early and locally, observing that meningitis is not one epidemic but a multitude of micro-epidemics. Basically we should convince ourselves, and convince the authorities, that it is better to launch small commando teams for reactive vaccination, in very discrete settings (towns, schools, hospitals etc), instead of trying to swat a fly, however deadly it may be, with a hammer.

“During mass campaigns, we vaccinate too much and too late”

Méningitis: heavy artillery for what impact?
Claire Magone, CRASH

In Zamfara, an MSF team monitors the apparition of meningitis cases in villages.

1996
A cerebrospinal meningitis epidemic hit northern Nigeria. The Dutch, Belgian, Spanish and French sections organised a response of unprecedented magnitude: 90 expatriates were deployed in the three Nigerian states most affected, vaccinating 2.9 million people, and treating 30,000 patients between March and May 1996. But since 1996 research has concluded that vaccination against meningitis, conducted several weeks after epidemic thresholds are crossed, has had a “marginal” effect, averting for example only 3.3% of cases in Katsina State.

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During mass campaigns, we vaccinate too much and too late

Nigeria. Public (Health) Relations
Article by Claire Magone in Humanitarian Negotiations Revealed: the MSF Experience edited by Claire Magone, Michael Neuman and Fabrice Weissman.
Was the meningitis epidemic in Nigeria in 2009 a surprise? Not at all. A large-scale epidemic had been expected in the meningitis belt. The previous large-scale epidemic in the region went back to 1996, and the cases were mostly concentrated in Nigeria. So the next big epidemic broke out in 2009, but earlier in the year than expected. However we were alerted quite quickly by the authorities because we had organised, at the beginning of the year, an epidemic response training module for the Ministry of Health.

Why did the vaccination campaign take on such big proportions? The epidemic was very stretched out geographically, reaching as far as Nigeria’s Northern States. MSF France intervened in three states, comprising a total of 15 million inhabitants. We had to vaccinate from ages two to 30, 65% of the population of each target district. By the end, MSF had vaccinated three million people in the space of two and a half months.

What were the difficulties faced in undertaking this operation? The challenge at first was to gather all the epidemiological data—and in doing so visit a very large number of health centres each week—and establish a surveillance system. Nigeria is so big that it was impossible to vaccinate everywhere. So we had to target as closely as possible the districts where vaccination was necessary to stop the epidemic. The teams traversed the states to find the meningitis cases and treat them, because curative care was an essential part of the response. But we found it difficult to make progress as quickly as we would have wished. First, it took us a month to receive the epidemiological data to be able to identify the priority zones, determine the vaccination sites, raise awareness to ensure that the population would come, and prepare the sites before we could start vaccinating itself. The ICG authorisation process (International Coordinating Group of WHO) was partly responsible, because it required us to provide a maximum of information to then obtain the authorisation and import the vaccines. But after that our reactive capacity improved and we only needed another 15 days to be ready. Another issue was how widely dispersed the population was. In addition to the operational bases we set up in the capital of each State we had to create sub-bases from the where the teams fanned out to farther-flung regions. Coordination had its base in Jigawa but was also “flying”. Or, more precisely, “driving”.

Why was there, at times, a sense of chasing after the epidemic? We ended up competing with a polio vaccination campaign, and we had to wait for that campaign to finish before we could start our intervention. Also, sometimes we found ourselves at odds with the Ministry of Health which was applying a strategy of “contact immunisation”, which consisted of vaccinating only the people close to the person who had contracted meningitis. This didn’t prevent the epidemic from starting up again.

In 2009 a meningitis epidemic spread through West Africa. With around 9000 cases and 550 deaths, Nigeria was the country hardest hit. MSF dispatched enormous logistical resources, and vaccinated close to five million people.
To vaccinate 4 million children per annum; is it the role of MSF?

Among the 7 million people MSF admitted (or treated) in 2010, vaccination ranks very high among the services with which they were provided. This is not a minor thing! But this gross quantitative figure obviously does not allow us to judge whether it is our role or not. That today 75% of operational vaccination activities are conducted in response to epidemics and only 25% are preventive is a concern for me. Without wanting to question the dominating strategy of epidemic response, we should be able to discuss and regularly re-evaluate this know-how to keep on improving.

Nonetheless, I want to insist on the persisting deficit in terms of routine vaccination offered in all MSF-operated health structures, primarily in countries with modest mass vaccination programmes. That in some of our missions in Central African Republic or in Congo Brazzaville, six children out of ten are not vaccinated, represents too many missed opportunities! The vertical approach does have limits that can’t be pushed. In practice, a mother coming from afar with a kid suffering from diarrhoea should be entitled the same day in the same location to consultation, treatment, mosquito net in malaria zones, advice, vaccines, etc… Helping set up this “one stop” concept, wherever we are operating, through highly pragmatic negotiations with local partners, in capitals, and with decision-makers and international donors, comes down to improving access to health care. This is the role of MSF.

Can mass vaccinations break an epidemic or not?

Let’s not forget, when we speak about epidemics, the importance of treating the cases. To treat patients remains a priority. Every mass vaccination during an epidemic outbreak is a challenge; the operational challenge is not a minor one, and the impact difficult to measure. MSF’s action is however not a blind one. It all depends on the infection, the vaccine, the precocity, the quality of the alert, the demographic density, the negotiation with authorities and other involved actors, the response time, the age groups…

If we take the example of Meningitis, we learned from the 2009 outbreak in Nigeria that beyond five weeks between the start of the meningitis A epidemic in a given area and the launching of the mass vaccination, it becomes delusional to think about stopping the epidemic.

To face the high recurrence of measles epidemic, should MSF engage more in EPIs?

It is not MSF’s role to remedy structural dysfunctions in national health systems. We treat patients, not systems. However, in case by case, field by field, MSF negotiates its more or less important participation in a EPI. Why not? But we have to be vigilant to have acceptable conditions in terms of missed occasions, stock outage, cold chain rupture, age groups. When this is not possible, the feasibility of offering a quality vaccination “on the side” should be seriously considered, at least as a transition option. Instead of running behind epidemics, let’s try to anticipate. Not at the scale of a country, but on the level of specific zones, identified as priority zones, where we can propose vaccination campaigns much earlier.

3 QUESTIONS FOR

Jean Rigal
Medical Director

Has MSF’s action always been confined to vaccinating in response to epidemics?

Historically, in the 1980s, there was a whole period during which MSF participated in EPIs in Mauritania, Niger, Yemen and Madagascar. We were fully involved in such programmes, to the extent that we acted as a substitute to the authorities. In Mauritania, we fitted cold chain installations into vehicles and nurses drove to desert areas to vaccinate. Progressively, we shifted into technical assistance. Within the framework of the last of such programmes, which we conducted in Yemen, we were advisors to the Minister for data organisation and information systems.

We gave no political justification to this approach. We used to consider vaccination as undoubtedly the most efficient and least costly public health tool. In low income countries, this seemed interesting. At the time, we extended our programmes beyond emergency – we set up cost recovery programmes, in Guinea for instance. Later, we considered that our role was not to be technical assistants. With the resurgence of conflicts and significant population displacement, we re-shifted towards emergency.

Should MSF take part in prevention campaigns, as was the case on the “Meningo A” vaccine?

We respond to epidemics by launching operations that
Measles incidence and mortality, similarly to other diseases covered by vaccination programmes, have been decreasing for the last thirty years. Despite their limitations, mass vaccination programmes (EPI) launched during the 1970s and 1980s have been as a whole successful. However, in the early 1990s, the first successes achieved by vaccination campaigns were not enough to reassure States and the World Health Organization (WHO). They were worried about the political, economic and security consequences of a resurgence of a number of infections (malaria, TB...) and the outbreak of a number of other diseases (AIDS, Ebola...). The growing resistance of infectious agents to medication and the unavailability of new products had significantly reduced the possibilities of efficiently responding to the main infectious threats.

After contributing to the launch of EPIs in a number of countries, MSF reached the conclusion that its know-how and operation mode did not really match the nature and long duration of such an activities. In this context, the issue of participation in vaccination campaigns was raised again, but in different terms: to vaccinate in reaction to an epidemic outbreak. The response to epidemics “in an open situation” has thus become a priority for MSF, whose experience was limited before to responding to epidemics in closed areas-refugee camps for instance. While MSF disengaged from national vaccination programmes, with less frequent interventions in refugee camps, the re-launch of the combat against infectious diseases by donors and by the WHO created an opportunity to develop new immunisation activities on a large scale.

Mass vaccination launched in reaction to the tracking of early cases is one of the conventional tools to respond to specific epidemic threats. However, to be efficient, the measure has to be taken as early as possible and target limited groups, carefully chosen. Otherwise, the number of cases and deaths avoided would be too low to justify such a costly operation at a scale of millions of individuals. Rarely are such favourable conditions (early detection of an epidemic and rapid reaction) gathered in the context of MSF operations.

In 2009, after long years of advocacy on MSF’s part, the WHO recommend vaccination against measles, out of the framework of EPIs, during an epidemic outburst. Since then, MSF has responded to measles epidemics by vaccinating ten million people, without being able to say if the number of cases and deaths avoided justified such an action.

Should they not allow to avoid enough cases and deaths, wouldn’t emergency mass campaigns be a good opportunity to extend low vaccination coverage achieved by routine activities conducted within the framework of deficient national programmes? According to the UNICEF, “catch-up” vaccination days proved very useful as a supplement to routine activities of national programmes with minor gaps, in Latin America for instance, but this is rarely the case in countries where MSF is conducting emergency vaccination against epidemics. In such conditions, should we continue this kind of vaccination campaign?

are extremely expensive, but maybe not always efficient in terms of saved lives, because no one else does so and because we want to vaccinate the maximum of people. But why should we waste so much energy and money, when we could get involved to some extent in the development of prevention systems - to pass from classical Meningo to combined Meningo for instance-knowing that it is basically a national program and that our participation remains relatively modest?

Should MSF engage in EPIs?
Wherever we are, if there’s an absence of health authorities for justified reasons - lack of public funds or distance and logistic problems-it is normal in my opinion to participate into EPIs, or even discuss with the MoH the extension of age groups to avoid the resurgence of an epidemic. Why should we be limited to playing the fireman if we can advocate for certain public health tools? In Chad, we only intervene on malaria, but if we have an opportunity to vaccinate children against measles, this can be interesting.

There are administrative impediments. EPIs are often organised in a rigid and bureaucratic way at the MoH level. When we want to vaccinate in South Sudan against Tetanus, we face objection from the administration, which considers that this is part of its own prerogatives, but not part of its priorities. There is also some reluctance on our part to participate in “development” projects. We should avoid being too dogmatic when there’s a proposition to vaccinate, either reactively or preventively.
The MSF Access campaign was launched in 1999. It dedicates a major part of its action to vaccination, both to funding issues and new vaccine development schemes.

What is the Access position on vaccines?
When MSF decided that vaccination was a priority some three years ago, we thought the logic behind access to vaccines was different from the one behind the access to drugs. For instance, there are no generic vaccines, because the process of producing copies is complicated. But at the end of day, as is the case for drugs, it is competition from developing countries’ companies that brings prices down on global markets. The most recent example is the Pentavalent. When the Indian manufacturer Serum Institute entered the market, the price decreased from $3.2 to $1.75.

Till this year, vaccine prices were not published. Donors had accordingly no idea of the prices paid by GAVI and UNICEF to buy the various vaccines. This was one of the projects the Access campaign worked on this year: to enforce more transparency. It was a success.

You also denounced conflicts of interest within GAVI...
Pharmaceutical companies are part of GAVI’s bodies – such as Crucel, with 50 to 80% of its turnover based on GAVI’s orders. Last June, we tackled this issue, but our lobbying was a failure: the reply we received was that all actors, including the WHO and UNICEF, were potentially in a situation of conflict of interests...

There is another problem with GAVI – which objective is to introduce new vaccines in the target countries – and that is a relative disconnection from reality. Today, countries can introduce very expensive vaccines against the rotavirus or the pneumococcal infection thanks to huge subsidies, whereas they are sometimes unable to organise campaigns with basic vaccines such as the BCG, polio or DPT. A balance must be achieved. More resources are needed for expanded programs on immunization (EPI), though vaccines’ introduction remains important.

Why are Expanded programs on immunization so important?
It is a must. The major measles epidemic that hit DRC this year was mainly linked to the failure of routine activities. Immunisation coverage levels were usually very low in the country. So, the major challenge is here: to avoid epidemics. Today, populations in many areas have no access to vaccination. We have to show that the system is not working for all, that it is too rigid and that EPI strategies have to be adapted to reach a fair vaccination coverage, even amongst populations with little access to health systems.

GAVI has recognised the failure of its funding strategy in countries described as “fragile”, like DRC, CAR, and South Sudan. GAVI wishes to develop new strategies for countries where EPI campaigns have been a failure. MSF has to decide whether it wants to adhere to this approach and share its experience to have an impact of new strategies.

What strategies are put forward by the Access campaign?
For the Access campaign, the objective for this year should be to work more closely with a number of projects to better understand the field reality and be able to push for the development of new products, easier to use. For instance, we are in touch with the Hilleman Laboratories, which are working in India for the development of new vaccines. For measles, we need a vaccine that can be given at six months instead of nine months currently, possibly without the use of a syringe, by means of new technique, through inhalation and that is heat resistant. Obviously, the development of easy to use vaccines will have an impact not only on our operational strategies, but also on the efficiency of EPIs.

The Global Alliance on Vaccines and Immunisation (GAVI)
GAVI is a partnership between the public and private sectors, founded in 2000 to improve children’s access to recent vaccines in developing countries. GAVI gathers, among others, the WHO, the UNICEF, the World Bank and major private donors, like the Bill & Melinda Gates Foundation.

At first, GAVI committed to add to the basic ‘package’ in partner countries vaccines against Haemophilus influenzae B and hepatitis B – used in rich countries since the 1990s. Recently, GAVI focused more efforts on the introduction of vaccines aimed at preventing acute diarrheal infection linked to the rotavirus, pneumococcal diseases, human papillomavirus and meningitis A.

1. Pentavalent = 5 antigens in one dose: Diphtheria, Tetanus, whooping cough, Hepatitis B and Haemophilus influenzae B
“Why are you so desperate about selling this programme?”

Alhaji Najeeb Hussain Adamu, Emir of Kazaure

Before the commencement of the controversial polio vaccination programme in 2003, representatives of WHO, NPI and UNICEF visited the Emir of Kazaure at his palace in Nigeria, to solicit his support for the programme.

In 2003, the victory against polio is said to be “at hand.” The number of cases dropped from 350,000 to 1,900 and the disease is endemic in only six countries, including Nigeria, responsible for half of the cases. WHO decides to redouble its efforts there, and strengthens the National Immunization Days: 5 in 2001, 8 in 2002, 11 in 2003. But vaccination teams face a growing resistance in the Nigerian population.

Dr Gloria: Your Royal Highness, I have been sent to cover WHO activities in Nigeria and especially polio eradication. In my country, Zimbabwe, we have eradicated polio. The World Health Organisation is now poised to eradicate the disease in its entirety. In order to certify Africa free of poliomyelitis, all African countries must ensure the total eradication of the disease through immunisation.

I remember in my country, people initially hid their children from immunisation fearing that those immunised will become pigs. This is because the exercise was not explained to them properly. I just want to say, sir, we cannot succeed in this exercise without your blessing and support because you are the father of the people. Thank you your highness.

Emir: Thank you very much for your coming. I must say that you have read the WHO Advocacy manual very well by the way you spoke persuasively about your mission here. I have been going through the manual myself, and I have seen how well perfected and aggressive it is. Nonetheless, I welcome you most sincerely.

I am sure the reason you are here today is because you heard that I am in the forefront of those expressing the fears and apprehension that people have about the vaccine for eradication of polio. This is due to the constant question people are asking us regarding the motive and the necessity for the programme which we could not get answers.

I remember very clearly, in the year 2000 and 2001, Dr. Mrs. Awoshika and company came to Jigawa State, and all the Emirs were asked to attend a meeting with her. At that time the fear was on the possibility of lacing the polio vaccine with some fertility drugs which could render inoculated people infertile at a later stage in life. I remember then that many Muslim organisations were asking for independent examination of the vaccine to ascertain its safety.

When we raised those concerns and apprehension, we were told that the drugs had been certified by WHO, and were manufactured under the best manufacturing environment and that we should be assured that there is no infertility drugs in the vaccine. We wanted hard evidence but we were given only assurances.

Following the concerns and apprehensions expressed by our people, we had to start conducting our investigations ourselves, reaching through books and the internet. All the books and publication you see around me are on polio. So madam, you see the apprehensions of any people are not like that of your people in Zimbabwe who thought they are going to be turned into pigs. Our fear is more on medical terms, more on health grounds. All you do is propagating the WHO advocacy programme of pushing the product. My assessment of this WHO advocacy document is that it is a marketing publication. All it talks about is targeting group A.B.C., how to deal with the media, ten ideas for photo opportunities, ten ways of involving new partners... This is the type of documents I used to see when I was in the banking industry, a business advocacy plan, if you want to sell a product. Why are you so desperate about selling this programme?

In your manual here it says you should tell the people they should submit themselves to “few drops” of the vaccine. Yet you come every year, for five years now. Nobody knows what is happening, you just come and drop a few drops on our children, and after a year or so, money is arranged, you come back and do it again, the same children that were given last year.

What are you after, what is WHO after, what is UNICEF after, why all this desperation? To wipe out 109 cases? How much is being spent on Nigeria? How many children die of measles, how many children die of malaria and diarrhea? Why are you not spending those monies to supply our hospital with drugs to fight malaria, typhoid, and measles? ■
Tomorrow’s vaccines: too expensive, not efficient enough, or not really adapted?

Malaria: a vaccine for kids with 50% efficiency?

Last October, the British group GlaxoSmithKline revealed the first results of a clinical test on a malaria vaccine conducted in seven sub-Saharan African countries. Three doses of the vaccine would reduce the risk of infection with malaria up to 56% - 47% for the most severe form. “These results show the efficiency of partnerships in the process of creating a vaccine that is able to protect millions of children against this devastating disease”, said Bill Gates, co-president of the foundation created with his wife Melinda and which is funding the PATH Malaria Vaccine Initiative programme launched in 2001.

MSF had a more measured reaction. “The results of the malaria vaccine trial show that there is potential, but let’s not drop the investment in insecticide treated bednets and effective treatment for a vaccine that has proven to work only half the time,” comments Nathan Ford, Medical Director of Médecins Sans Frontières Access campaign. “There was very low malaria-specific mortality in the trial, which is explained by the high quality of care provided. This underscores the importance of ensuring that, in order to prevent malaria deaths, the priority is to ensure that children with severe malaria get the best possible treatment.”

Cholera: vaccinate were we can’t treat?

Shanchol, an oral vaccine developed by Shantha Biotech, was pre-qualified last November by the WHO. The vaccine is less expensive than the one available up till now, but has a relatively short protection period, two to three years. Today, no vaccine offers long-term protection against cholera. The two existing vaccines require two separate doses at a two week interval with an effect starting a week after the second shot.

Should MSF consider using them in Haiti? “Without improving access to drinking water and sanitation, cholera will no doubt continue to be recurrent,” says David Olson, MSF medical advisor for diarrheic diseases. And vaccinating everyone, as the government initially demanded, poses many problems. First, it is impossible for companies to produce enough vaccines. And the cost of vaccines only will reach a minimum of 25 million euros, to which HR and logistics expenses should be added, while the protection period will not go beyond two years and for only two thirds of the vaccinated population. Spending this money on a sustainable improvement of access to water and sanitation would probably be a better investment.

To have a significant impact, the means would be to target those who have no access to medical structures and no prevention measures. In urban areas, it seems easier to treat the disease and distribute water and soap, but also to disseminate information.

Pneumococcal vaccine: prices still too high!

MSF is participating, in Kenya, in the introduction of a new generation of pneumococcal vaccine for kids. A vaccine that is still very expensive, compared to prices of other routine vaccines. “The new vaccine is good news, children in developing countries will finally be protected against pneumococcal diseases”, explains Dr Tido von Schoen-Angerer, director of the MSF access to essential drugs campaign (Access). “However, its price, fixed in agreement with two major pharmaceutical groups, is very disappointing. For countries which receive no aid, the vaccine is unaffordable. Prices should be reduced if we want a maximum of children to benefit from it”.

Two pharmaceutical companies - GlaxoSmithKline and Pfizer/Wyeth – are getting significant amounts of money thanks to this vaccine introduction project. Each of the two has to sell 30 million doses per annum for 10 years, at a unit price of $10.50. Each lab will also receive additional “subsidies” of $225 million.

This threatens to worsen financial difficulties facing the Global Alliance for Vaccines and Immunisation (GAVI), which funds the purchase of new vaccines for developing countries. It is also a source of concern for many countries which are directly buying their vaccines.
How GAVI could – and should – have negotiated a better deal for pneumococcal vaccines

By Laurent Gadot, Access campaign

The advanced market commitment implemented by GAVI aimed at improving access to vaccines and at developing new products for poor countries. But it favours big pharmaceutical groups.

GAVI Alliance’s describes the Advance Market Commitment (AMC) for pneumococcal vaccines as an “apparent early success” and recommends exploration of the mechanism for potential application to other areas. Part of GAVI’s fundraising success in these cash-strapped times lies in the fact it is perceived as a cost-effective mechanism. But could it have negotiated a better deal for the pneumo vaccine? With the same amount of public and foundation money could more children have been immunised?

If the AMC is judged only on its ability to increase access to pneumococcal vaccines (PCV) it is, as GAVI notes, a potential success. But the idea of the AMC was to reproduce the incentive offered in developed countries markets to attract pharmaceutical investment to stimulate development of a product that meets a priority medical need in poor countries.

THE THREAT OF RATIONING REMAINS

Instead of focusing on R&D inducement, GAVI’s pneumo-AMC primarily acts as an incentive to scale-up production capacity and as a procurement mechanism for products nearing commercialisation in wealthy markets. This fact is acknowledged by GAVI.

The two companies participating in the AMC - GlaxoSmithKline (GSK) and Wyeth (now part of Pfizer) - sell each dose of PCV for $7, with $3.50 coming from the donor subsidy top-up and most of the remaining $3.50 being paid by from GAVI on behalf of eligible developing countries. Once the firms have collected their share of the $1.5 billion subsidy, they commit to sell each dose at a maximum of $3.50 a dose – this is known as the tail price.

For GAVI, funding the scheme has proved a considerable challenge. Purchases of PCV alone are projected to reach 37 percent of all GAVI’s vaccines programmes expenditure between 2011 and 2015, and this funding challenge is set to increase sharply after that.

In the absence of adequate pledges from donors beyond 2015, the financial burden of the AMC could force GAVI to embark on rationing. The current troubles of the Global Fund to Fight Aids, TB, and Malaria, which has been forced to downsize after donors have withheld their financing, serve as a reminder of the credibility of this threat.

Another problem with a ‘one-size-fits-all’ design of the AMC is that it provides little incentive for emerging suppliers to invest in the necessary R&D, as a considerable proportion of the subsidy will have been awarded to GSK and Pfizer by the time any low-cost product can compete for a share of the subsidy. In the absence of competition to drive prices down, there’s little hope that the AMC tail price would ever fall below the $3.50 cap. An additional mechanism was therefore needed, one that the Gates Foundation and PATH are now providing through additional financial support to manufacturers from emerging countries.

What if GAVI had chosen an alternative, and designed an AMC for low-cost suppliers only? With lower costs of production, a lower tail price and subsidy would have been secured. These savings could have allowed GAVI to finance a larger push programme than the one currently being financed by Gates. And in order to secure short and medium term supply from existing suppliers GAVI could have entered in bilateral negotiation with GSK and Pfizer, using the same expertise and efforts as it mobilised to secure the participation of those companies in the AMC.

On the contrary, the pneumo-AMC carries the long-term risk of being locked into the higher tail price, a price that was deemed necessary to secure Pfizer’s participation in the short- and medium-term.

By definition, any mechanism that wants to attract multinational companies will have to offer rents that are inflated above costs, to come close to potential rewards offered by lucrative markets. But the AMC has re-enforced the position of the market leaders by granting them a time advantage over emerging countries suppliers and limiting the potential market share emerging suppliers can compete for.

AMC definition:

An advance market commitment is a binding contract, typically offered by a government or other financial entity, used to guarantee a viable market if a vaccine or other medicine is successfully developed. As a result of such a commitment, the market for vaccines or drugs for neglected diseases would be comparable in size and certainty to the market for medicines for rich countries. This would enable biotech and pharmaceutical companies to invest in the development of new vaccines.
Watch and Read...

**Books**

*Immunization in Practice, a Practical Guide for Health Staff.*

This practical guide contains eight modules targeted at district and health facility staff. It intends to improve immunization services so as to reach more infants in a sustainable way, building upon the experiences of polio eradication. It includes materials on planning, monitoring, and use of data to improve the service, that can be used at any level. *Immunization in Practice* is both a resource and training guide that can be used in workshops and supportive supervision visits. It is useful both for staff who are learning to provide immunization services and for those who have been doing so for some time. Its format is easy to follow.

*ImmuNoFACTs: Vaccines and Immunologic Drugs.*

This book has been a leader in drug information for more than 60 years. It is an essential resource for anyone who prescribes, administers, dispenses, or monitors immunologic agents. It will help you to make informed decisions about dosages, administration, storage, formulary admission, and purchase of vaccines and immunologic drugs.

*The Politics of Polio in Northern Nigeria.*

In 2008, Northern Nigeria had the greatest number of confirmed cases of polio in the world and was the source of outbreaks in several West African countries. Elisha P. Renne explores the politics and social dynamics of the Northern Nigerian response to the Global Polio Eradication Initiative, which has been met with extreme skepticism, subversion, and the refusal of some parents to immunize their children. Renne explains this resistance by situating the eradication effort within the social, political, cultural, and historical context of the experience of polio in Northern Nigeria. Questions of vaccine safety, the ability of the government to provide basic health care, and the role of the international community are factored into this sensitive and complex treatment of the ethics of global polio eradication efforts.

*Vaccine.*

Vaccine is the pre-eminent journal for those interested in vaccines and vaccination. It serves as an interface between academics, those in research and development, and workers in the field. It is the official journal of the Edward Jenner Society, the International society for vaccines and the Japanese society for vaccinology. It is published once or twice a year, and can be purchased online.

**Films**

*Organising An Emergency Mass Vaccination Campaign.*

This film is an essential support to the training of volunteers called to set up a campaign of mass vaccination. It requires human, material and financial resources and a disciplined organization with the aim to vaccinate a large number of people over a short period.

*Shots in the Dark.*
A film by Lena B. Moreco

Far from rejecting the unquestionable and widely documented benefits of vaccination, *Shots in the Dark* underlines the necessity of supporting research to better understand the long-term effects of vaccination and protect the minority at risk. According to the author, some of the research underway indicates that vaccination is directly responsible for immune or neurological disorders among certain people genetically or neurologically predisposed to react badly to vaccine components. Cases of autism, multiple sclerosis, Guillain-Barré syndrome, macrophagic myofasciitis, encephalitis, paralysis, and neuropathies indicate the seriousness of the situation.

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On the web

**OMS/WHO, The Immunological Basis for Immunization Series**

This series was initially developed in 1993 as a set of eight modules focusing on the vaccines included in the Expanded Programme on Immunization (EPI). These modules have become some of the most widely used documents in the field of immunization. Latest modules published in 2011: rabies, hepatitis A, human papillomavirus, rotavirus, typhoid.

http://www.who.int/imunization/documents/immunological_basis_series/erv/index.html

**The Lancet: “New Decade of Vaccines”**

In December 2010, global health leaders committed to making the next 10 years the Decade of Vaccines - to ensure discovery, development, and delivery of lifesaving vaccines globally, especially to the poorest countries. This series looks at every aspect of this medical technology, including the developments expected over the coming decade and what we can expect from translation of the latest vaccine science. Improving vaccine coverage and financing of both existing and newer vaccines together with how we communicate the benefits of vaccines and ensure public trust and confidence are also examined.

http://www.thelancet.com/series/new-decade-of-vaccines

**VaccineEthics.org Bibliography**

Created by the Penn Center for Bioethics to assist researchers, students, journalists, and others interested in developments in vaccine ethics and policy, the VaccineEthics.org bibliography includes over 1300 items published since 1995 in scholarly journals, government reports, the popular media, and books. Included in the bibliography are items that address ethical, historical, legal, and policy considerations related to vaccine development, regulation, and use.

http://www.vaccineethics.org/bibliography.php
Since 2008, there has been a dramatic increase in the number of kidnappings, attacks and murders in the Sahel by groups claiming to belong to Al Qaeda. To what extent do they see an international medical humanitarian organisation like MSF as a potential target? Is it possible to come to some kind of arrangement with these groups, to find some common ground that would allow us to work in acceptable conditions? To help answer these questions, Michel-Olivier Lacharité’s desk (Mali, Niger, Chad and Yemen) organised a round table and invited three specialists in the region and the different groups of terrorists and criminals at work there.

How did these groups come into being and how have they evolved? What are their real and their stated objectives? What support are they receiving from home and abroad? These are all questions that need answers if we are to be able work in this complex region where security is becoming a growing issue.

MSF AU SAHEL

In Mali, MSF OCP has worked since 2009 in the Sikasso region (southwest), covering the main pathologies that affect young children. MSF does not work in the northern regions of the country where terrorist and criminal groups are the most active.

In Chad, the French, Swiss, and Netherlands sections are present in different regions of the country: in the South, MSF OCP intervenes in Moïssala (malaria), and MSF OCA in Am Timan (pediatrics). MSF OCG intervenes in the East, in Abéché (fistula and maternity), and in the West, in Massakory (nutrition). The three operational centers also intervene on emergencies.

In Niger the four operational centers work essentially on nutrition and pediatrics, in Maradi for OCP and OCB, Zinder for OCG and Tahoua, and Agadez for OCBA. MSF has already been warned of potential dangers threatening its teams in Niger.

In Nigeria, MSF OCP intervenes in Port Harcourt, Jahun, Jigawa, and in Kazaure. OCA intervenes in the North, in Sokoto and Zamfara, and OCBA in the capital city, Lagos.
AQMI, the West’s Frankenstein

*Created from scratch by the Algerian and American secret services, the Maghreb arm of Al-Qaeda has escaped the control of its masters.*

Jeremy Keenan, anthropologist and Professorial Research Associate at SOAS (School of Oriental and African Studies) at the University of London, specialises in the Sahel and is author of many books including *The Dark Sahara: America’s war on terror in Africa in 2009.*

AQMI as a name came into existence officially in January 2007, when the GSPC (Salafist Group for Preaching and Combat) changed its name to Al Qaeda in the Islamic Maghreb. The first test case of this group was in the Sahara in 2002 and it was to create a false flag, or fabricated terrorism. America needed some terrorism, and Algeria needed some terrorism.

America was interested in the control of Africa, mostly for resource reasons, through the militarization of Africa – the US is a militarized state, and when there are big projects, it’s the military that runs them. The problem for America was “how do we legitimize this strategy when there is not much terror in Africa.” The reason Algeria needed terrorism was because America was saying “we are not giving you new army equipment because you have no problem. You are on top of terror, you have done a wonderful job. You do not need this stuff.”

**A NAME BEFORE ALL ELSE**

In 2003, AQMI took 32 Europeans, mostly German speaking, hostage. That was the big operation which has provided the entire justification for everything that has happened since. That operation was fabricated by the Algerian secret services (DRS) controlling it, they had 64 so-called terrorists, probably all of them being 100 percent genuine salafists. We have this situation still today of the leadership being DRS managed, but the foot soldiers being genuine salafists.

Then, in 2006, a second deal was done between the Algerians and the Americans. There was still no terrorism in the Sahara since 2003 and America really wanted a little bit more action, a little bit more propaganda. On May 23rd 2006, 400 men attack, the casernes in Menaka and Kidal and they withdraw before Mali forces came. This was organized with the Americans.

So we now have an international brand, Al Qaeda, being given to an organization that in the Sahara, MAIN ACTIONS CLAIMED BY AQMI SINCE 2007

**MALI**

**JUNE 2009**
A British tourist is kidnapped in Niger and killed in northern Mali.

**JULY 2009**
AQMI claims the killing of 28 Malian soldiers.

**NOVEMBER 2009**
Pierre Camatte (French) is kidnapped in his hotel. He is freed in February 2010 after the release of four AQMI members by Malian authorities.

**MAURITANIA**

**DECEMBER 2007**
Four French tourists are killed in Aleg.

**SEPTEMBER 2008**
12 Mauritanian soldiers are beheaded.

**AUGUST 2009**
Suicide attack in front of the French embassy in Nouakchott.

**NOVEMBER 2009**
Three Spanish NGO staff are kidnapped.

**TUNISIA**

**FEBRUARY 2008**
Two Austrian tourists are kidnapped and released eight months later in northern Mali.

**ALGERIA**

**JUNE 2010**
11 Algerian soldiers are killed at the Malian border.

**NIGER**

**FEBRUARY 2008**
Two Canadian diplomats are kidnapped and released four months later in Mali.

**16 SEPTEMBER 2010**
Seven employees of Areva and Satom are kidnapped in Arlit (uranium extraction site). Three of them are released in February 2011.

**7 JANUARY 2011**
Two French are kidnapped in Niamey. They are killed in a French-Malian rescue operation.
THE 1ST TUESDAY OF THE MONTH DEBATE

The Sahel, crossways for all types of business

Mineral resources, traffic in cocaine and weapons, migrant flows: in the north of Mali and Niger, terrorism and criminality meld into one. At the same time the Tuareg issue remains unresolved.

Of course one of the main issues in the region is the control of natural resources, mostly uranium since Niger is the second world producer. But you also have important resources like coal, oil, gold, phosphate, limestone — and this is not yet fully developed. So the big price and the big strategic interest of external powers is related to those resources. And it is important for major powers to keep that region a bit unstable in order to justify the presence of their own militaries and intelligence agencies, the ultimate objective being the control of those resources.

CRIMINALITY ON THE RISE

There are different issues which make our security assessments more difficult. The two main trends are transnational terrorism and, of course, criminality. Criminality has quite an important role and will have an even bigger role in the future. Since about 2005, the corridor from the northern areas of Mali through Niger - and at the time through southern Libya - has become one of the main roads for cocaine smuggling into Europe.

This brought a huge influx of money. And in an area which has historically been put aside by both the Mali and Niger central governments, that huge influx of money has an important impact on how society functions in those areas. It’s an area that has gone down in terms of economic output.

The prospects for development are quite dim. Both Niger and Mali have not yet made any specific efforts to develop those areas even though they are the main areas in terms of production of resources. So the population does not see any change in their day to day lives. Services such as health care are not provided at a satisfactory level to the population.

DOUBLE-GAME: WHO ARE OUR CONTACTS?

Concerning the second trend - transitional terrorism - there is a mix of actors, people who play both cards. A big cocaine dealer in the area can also be in touch with AQMI groups and feeding them with supplies. So you have to be very careful in who you deal with in those regions because they could play many...
different agendas at the same time.

Some members of AQMI have made an effort in the long-term to integrate the Tuareg society, to marry and build links that would be more difficult to disrupt one day by security services. The Tuareg society is very divided, even if there are some common points in how people identify as Tuaregs. It is a very tribal type of society where different groups meet to agree on general terms. But at the local level, it is very autonomous.

**“THERE IS A PLACE FOR MSF TO INTERVENE”**

To understand the Tuareg you also have to look at the changes in their ways of life. One example is modernization, or a move from tribal societies living in rural areas and basing their work on agriculture to more urban-based livelihood. There is an opportunity in terms of local acceptance for MSF to work considering the Tuareg, or at least assess how much the changes in Tuareg society will affect their health and behavior when seeking health care.

Another aspect related to MSF activities is to look at places which are mainly inhabited by Arab populations. These are also areas where the trends we discussed - such as criminality and terrorism - are present and important.

There are important health and medical needs in the area. There are also different types of populations that could be targeted, but also the presence of migrants that are using the same smuggling routes that go from Europe to North Africa. It's possible to find the necessary connections and develop the network needed to work there. Yes, it has some risks associated with the power games and intelligence games around the area, but I think there is a place for MSF to intervene and be present, and find the adequate information and model and respond to the area's needs.

We say in MSF “all, or almost all, is negotiable”. Can you really negotiate with AQMI?

At the moment I can't see us really having managed to negotiate with them so far, because AQMI isn't anchored to a particular territory, nor does it have a particular social foundation via which we might make ourselves accepted based on the benefits of our activities.

It might be possible to achieve this result via our actions in the medium term, but we're not there yet. And we hear all sorts of things and their opposite regarding donations and development activities that AQMI is putting in place in the north of Mali and Niger to gain the “hearts and minds” of the local populations; for some people this is a major thrust of AQMI’s strategy while for others it’s nothing. From this point of view I don’t believe that the people and AQMI share homogenous interests, or that the health services that we bring interest them much either.

Instead I believe that MSF’s workers represent a potential target, as volunteers for an institution perceived to be very French, and as citizens of the western world. There are multiple reasons why AQMI targets France in particular: the colonial history of the region, France's role in Afghanistan, its policies on migration, the law on the wearing of the veil. Moreover, the muscled-up response to the most recent abductions and the losses incurred by AQMI at the time, at the hands of the French government, has driven them to seek direct revenge. And the sordid aspect of the abductions doesn’t necessarily distance us any further, especially because the media is suggesting ransom claims will increase.

What measures have been taken to reduce the risk to which our teams are exposed in the region?

We may talk about reducing the exposure to risk, but zero risk just does not exist in this context. There is a certain irreducible risk that has to be taken on at all levels, from the field to headquarter, and I think it is important to remind that to all volunteers who go to the field.

As to what we’re doing to reduce risk, the essence of the rules that we have in place is to avoid being an easy target: for example, if every day at 18:22 a logistician rides his bike between the garage and the office sporting a navy-striped French sailor’s t-shirt and a beret and carrying a baguette under his arm, that’s an easy target. In our projects in Mali we therefore try to not be an easy target, all the while aware that these measures do not guarantee absolute protection.

On the other hand in Niger, the decision to intervene in partnership with Forsani, a national NGO, responds more to operational logic than a security logic.

In a more general sense, it is difficult to reach an equilibrium between security measures and the risk of bunkerisation of the teams, which would have the consequence of cutting us off from the local context and reducing our analytical strength.

In this context, what can you offer in terms of “advice for MSF travellers into the red zone”?

I believe that it is important to make everyone aware that they are the most responsible for their own security, and that they play an equally important role in the security of others. This assumption of responsibility must be coupled with a recognition of the risks, without going as far as getting paranoid.

Also, I remember a piece of advice once given to me by Thierry Allafort (Editor’s note: ex-head of emergencies): “a contact is not a telephone number in your cellphone, it’s someone who is going to call you when he knows you’re in danger”.

Thus the importance of integrating within the context, building authentic relationships and going to meet the people who work with us and who have contact with our project. This can help us shift from a “might happen” analysis, based on past events, to a better reading of the potential risks in the contexts where we work.
Boko Haram is a dissident religious grouping of the sort we've had for at least 200 years and there’s nothing particularly unusual about it except they claim to be more pious, more God-fearing than those in power.

Within the last 10 or 20 years, these dissident groups have come into towns - they used to be at the rural end of protest. What is new is that they've used explosives. You become opposition, you annoy the administration, they then attack you and of course you fight back in any way you can. In some way, they are taking revenge on those who attacked them.

**BOKO HARAM: GROWING IN THE SHADOWS**

There’s a tradition in Nigerian political worlds that you don’t be public – the leadership are private, power is hidden. So the point is that basically if Boko Haram is a franchise, little groups can crop up and do actions anywhere.

On the whole, Boko Haram has never kidnapped anyone. There was a bizarre kidnapping seven months ago in a small town, in Kebbi State, where two building workers - one Italian and one British - were kidnapped. The story is that they’d been sold on to AQMI. This would almost certainly have been done by a local criminal group who thought it was a good way of making money. But Boko Haram doesn’t do kidnappings. Because the whole point about being a group like Boko Haram is that you’re like the invisible. And a kidnapped person isn’t much use.

**NO-ONE REALLY WANTS THEM TO GO AWAY**

If I was a young Muslim Nigerian I would probably join Boko Haram. The village area that I go back to every year had 1,500 taxpayers in 1954. Two years ago they had 75,000. Land doesn’t just expand, and the schools have gone from worse to worse: you’re producing a world of unemployable people. So, what does one do? I would suddenly get an excess of religious feeling, and join Boko Haram who would teach me Arabic. I would learn enough of the Koran and the rituals to perform the appropriate ulama services which I would then be given pay for. I’d almost certainly get a wife. And this is crucial because if you have no education, no job, you won’t get a wife. I bet most of you would join Boko Haram if this is the legacy you would be left with.

The police and the army have a real interest in keeping the Boko Haram crisis “up”. It is a very good source of income, special payments. Also, the local political power brokers want the government to talk with the Boko Haram leadership, to arrange an end to the violence. They don’t want to have an end to Boko Haram because it’s a legitimate religious group. A group like Boko Haram has grassroots support because they are doing what the majority of Muslims want, that is to make sure that they’re living properly in a proper community so that when the Day of Judgment comes, they won’t be found to have been wrong. ■

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**Doctors have borders**

“For most Northern Nigerians, Medicine is a Christian, alien thing, and doctors are arrogant; they’re bossy, they tell you what to do. They’re associated with missionaries. And of course they’re associated above all with colonialism.

There is a very strong sense that medicine is a pretty evil occupation. Medicine is also boastful. You claim to save lives. Now, it is Allah who determines whether you die or you don’t die. Doctors can treat disease but disease does not lead to death; in the same way, prognosis isn’t allowed.

Islam is not about medicine. Out of about 130 miracles that the Prophet made, only three were about healing. But there is a sense that the Prophet didn’t do medicine, didn’t do healing. Christian aid missions’ support in arms and money during the Biafra war were the cause of about a million more people dying. So NGOs aren’t viewed as saving lives, they’re often seen as causing the deaths. MSF should be there, that’s not a problem, but it is just worth reminding you that MSF was founded by Bernard Kouchner, and that Total wanted the oil and supported the Biafran war. Kouchner’s great claim - what your title is all about - that frontiers don’t matter to you, was really an abrogation of sovereignty. There’s no intrinsic reason why medicine should not obey local sovereignty. Doctors have borders: you may not recognize them but others do.”
**EXHIBITION**

“From hospital to hospital”

For many people, going away to work with MSF means providing care with whatever’s at hand, doing internal fixations with a pocket knife, treating TB with aspirin... an image shattered by this exhibition, which presents the know-how and innovative tools that MSF uses in the field, and aims to encourage future expats as well. The exhibition will tour France throughout 2012 visiting University Hospitals in a semi-trailer.

**BOOK**

*Fall Down Seven Times, Stand Up Eight*

Photographer Rip Hopkins was a young reporter working within MSF’s audiovisual team in the 90s. With this book he explores images far removed from the usual humanitarian iconography. Celebrities from the arts, sciences, medicine, and sports, plus a few MSF staff, wear an MSF t-shirt in their own style to express their commitment to the organisation. The book is accompanied by exhibitions in major cities in France.

**VIDEOS**

**40 video portraits**

From patient to surgeon, from donor to cook, from 21 December there’ll be a daily one-minute video portrait posted on MSF’s site as well as Yahoo, Orange, etc. The stories will remind that humanitarianism above all is the story of people banding together in solidarity.

**GATHERING**

**Donor meetings**

We know that there are 530,000 donors in France, 1.8 million supporting the French, US, Australian, and Japanese sections combined, and 5 million for the whole of the MSF movement. But do we really know them? To mark MSF’s forty years, MSF-France decided to go out to meet some of these donors, to thank them and to answer their questions. The meetings were held in ten French cities, thanks to the efforts of the antenna teams and supported by members of the Board, Fundraising, Communications, and GUPA.

**SYMPOSIUM**

**Medical innovation**

Ten years after the creation of the Access campaign and of the DNDI, what new drugs, tests, vaccines are available? How is MSF going to make sure that the needs felt at the field level become a priority in terms of research and development? The symposium should take place in Paris or New York in fall 2012.

**FILM**

*Living in Emergency*

French tour

The audience figures confirm its success: *Living in Emergency* was viewed by 5000 students in 20 French university faculties in 2011! At each university the Student Office took control, mobilising the student body to attend the screening in a lecture theatre, followed by a debate. The *Living in Emergency* University tour continues in 2012.

**VIDEO**

**40 seconds video clips**

A quick presentation of MSF broadcasted on Youtube, Facebook, and the msf.fr website, but also three times per hour on the Christmas market of the Champs Elysées, in Paris.