Translated version of MSF-CH RAPPORT FINAL POUR PARTENAIRES

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FINAL MISSION REPORT
CHOLERA
NORTH DEPARTMENT, HAITI

Medecins Sans Frontieres - Switzerland (MSF - CH)
24 October 2010 - October 20, 2011

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Cap - Haitien

MSF - CH NORTH BY THE NUMBERS
November 2010 - September 17, 2011

GENERAL
Beginning of operations
October 24, 2010
End of operations
September 30, 2011
Office Closed: October 20, 2011
MEDICAL & STRUCTURES
Total number of structures put in place
or supported by MSF - CH
5 CTC, CTU 17, 7 CS, 108 ORPs

Total number of patients treated in the North
39,960 (collected by MSF)
41,840 (collected by the DSN)

Total number of patients treated with
structures purely MSF - CH (North)
31,759

Percentage of patients treated by MSF -
CH (North)
79.5% (figures MSF)
76% (DSN digits)

Number of daily admissions at peak
the epidemic (December 2010)
500

Total number of deaths
559 (figure MSF)
668 (figure DSN)

Mortality rate
1.4% (MSF)
1.6% (DSN)

Total number of deaths - MSF structures - CH
441

Mortality rate in the MSF structures - CH
1.4%

Total population of the department
(Census 2005)
823.043

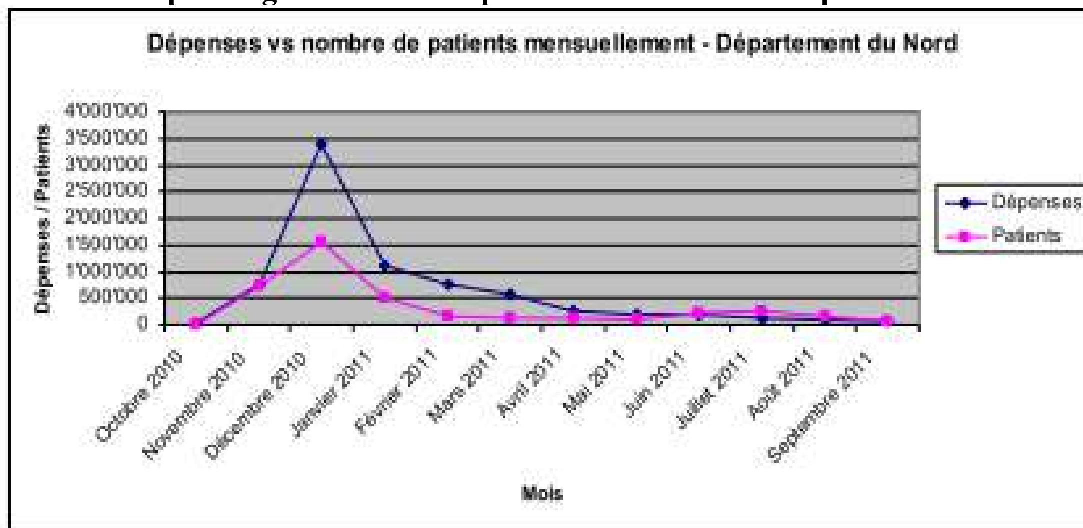
Average attack rate in the North
(November 2010 - September 2011)
4.8% (MSF)
5% (DSN)

Information, deduction, Communication (IEC)
Number of municipalities affected 19
Number of communal sections affected 75
Number of houses targeted 10,564
Number of target markets 25
Number of schools educated 50
Number of churches educated 15
Number of associations educated 89
Many authorities educated 151
Number of trained rangers of the DSN 650 (81% of total)
Total number of persons aware
205.545
LOGISTICS
Amount of donations and medical
HTG 17,744,109.54 or USD 443.602
A
DSN = Direction Sanitaire Nord (MSPP-North Department)

ADMINISTRATION
Maximum number of employees at peak
the epidemic (December 2010)
1200 National
50 expatriates
Number of employees at the close of
project
37 national
5 expatriates
Expenses October to December 2010
CHF 4,193,725
Expenses January-September 2011
CHF 3,396,470
Total expenditures in October 2010 -
September 2011
CHF 7,590,195

MONTHLY EVOLUTION VERSUS NUMBER OF PATIENTS

Spending vs. number of patients each month - Department of North



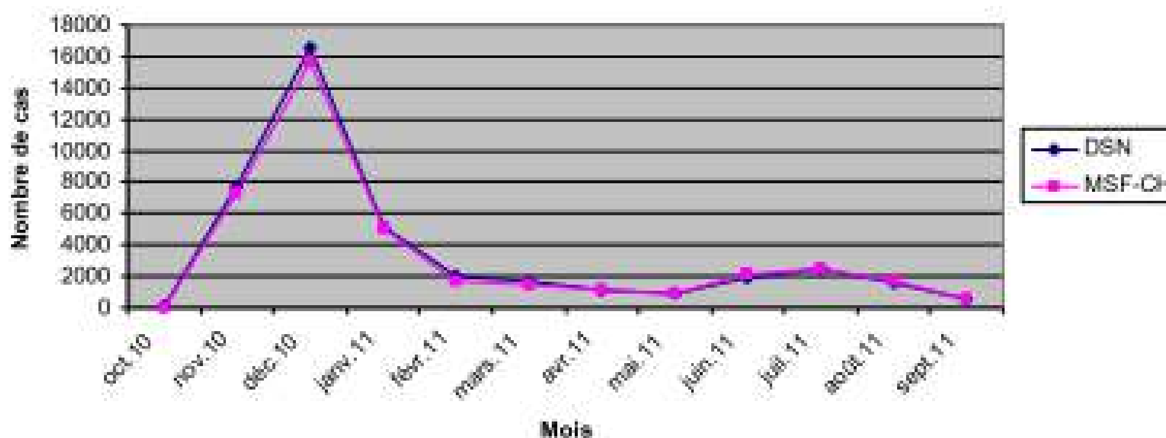
2 A substantial amount of donations were not valued and are therefore not included in this figure

SUMMARY OF THE NUMBER OF PATIENTS BY CHOLERA IN THE DEPARTMENT OF THE NORTH

Monthly Summary of cholera cases in the Northern Department between October 2010 and September 2011 (comparison figures collected by the DSN and MSF - CH)

PERIODE	DSN	MSF-CH
Octobre 2010 (semaines 42 et 43)	121	55
Novembre 2010 (semaines 44 à 47)	7701	7288
Décembre 2010 (semaines 48 à 52)	16,588	15,686
Janvier 2011 (semaines 1 à 4)	5175	5051
Février 2011 (semaines 5 à 8)	2040	1693
Mars 2011 (semaines 9 à 13)	1716	1425
Avril 2011 (semaines 14 à 17)	1097	1137
Mai 2011 (semaines 18 à 21)	908	874
Juin 2011 (semaines 22 à 26)	1895	2074
Juillet (semaines 27 à 30)	2512	2479
Août 2011 (semaines 31 à 35)	1570	1654
Septembre 2011 (semaines 36 et 37)	517	544
TOTAL	**41,840**	**39,960**

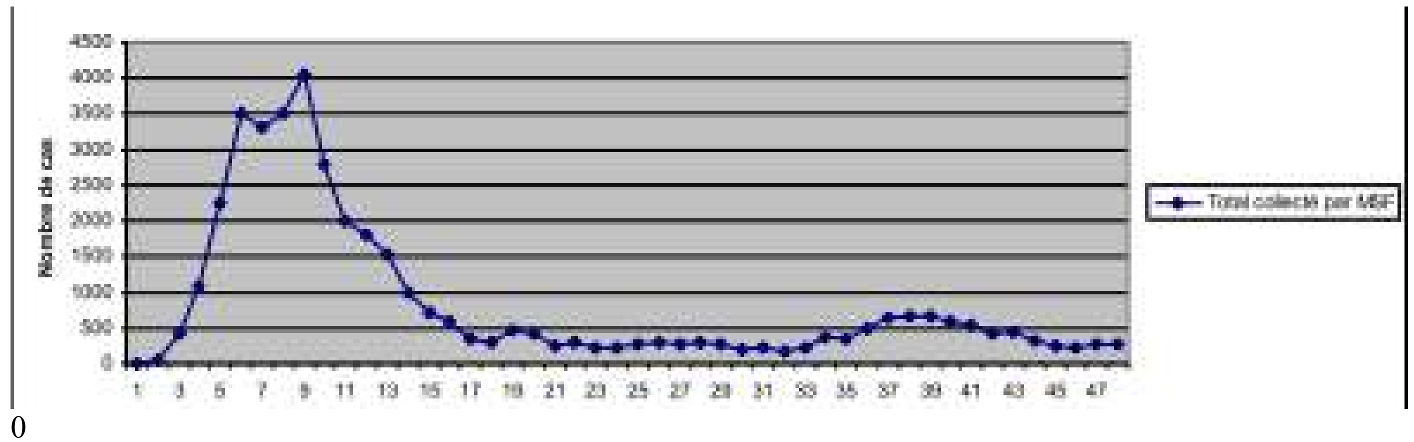
Number of monthly cholera patients - Department of North
October 2010 - September 2011



Number of cases reported by MSF - CH since the start of operations: 39.960
Number of deaths recorded by MSF - CH: 559

Number of cases identified by the DSN: 41, 840
Number of deaths identified by the DSN: 668

Number cholera cases - Department of North



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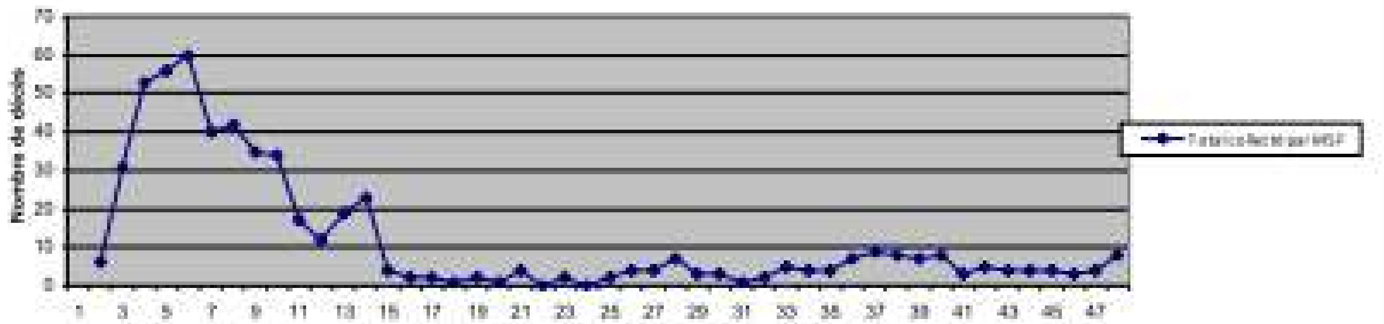
From weeks 42 to 52 of 2010 through weeks 1 to 37 of 2011

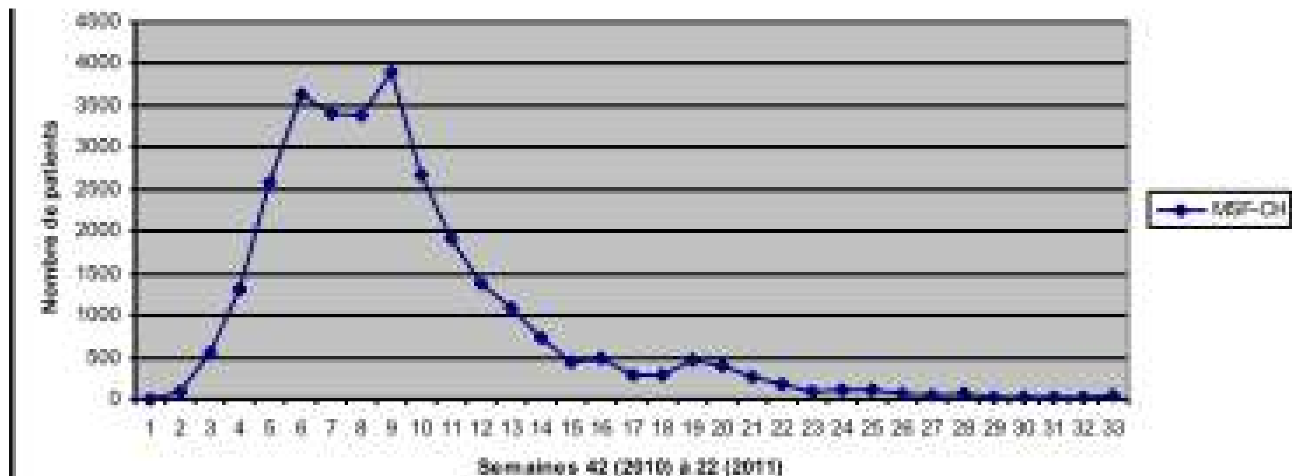
Cholera deaths - Department of North by week



From weeks 43 to 54 (2010) through 1-37 (2011)

Number of cases treated in MSF structures - CH:
31.759
Number of deaths in structures MSF - CH:
441
Percentage of patients treated by MSF - CH:
79.5% (figures MSF)
76% (DSN digits)

Number of patients treated in the MSF-CH structures - Department of North



Weeks 42 of 2010 to 22 of 2011

Most cases were treated between October and December 2010.
The reduction of cases started in late December and continued gradually
over the following months. There was a slight increase in late February that has not
and lasted to mid - March the reduction of cases continued until mid - June. At this
period, the cases increased to a maximum peak reached in early July and
corresponds almost to triple the number of cases in previous weeks. A
From the end of July, cases began to decline again
gradually, but with an outbreak of the Cap - Haitian at the end
in September.

Between April and September, there were mini - localized outbreaks that have
succeeded in different communes of the department. The set Lowest
reached for the department is about **200 cases per week** and the average
weekly number of cases generally varies between **200 and 500 cases per
weeks with the mini - outbreaks.**

These mini - outbreaks are now managed by the DSN.

The last outbreak occurred in Cap - Haitien caused an increase in
to just over 730 cases per week (80% of the area of Cap - Haitien), which
could be easily managed by existing structures: Justinian Hospital, the
Bravo and CTC Milot Hospital.

The general strategy of MSF - CH IN

DEPARTMENT OF THE NORTH

The intervention of MSF - CH at the outbreak of cholera in the department North of Haiti was conducted in three consecutive phases:

October-December 2010: first phase
Objective: To fight the disease and reduce mortality by treatment direct, begin implementation of PRO[3] in remote areas, initiate epidemiological monitoring.

It was during the emergency phase where the disease was initially prevailed in Cape Town - Haitian. We had to face and deal with patients in an attempt to reduce mortality and morbidity.
The management was conducted Cap - Haitien in the CTC / CTU[4]:
the Gymnasium,
Bravo, Fort Saint Michel and Vertières. MSF - CH also paved the foundation for Limbe, Piacenza, and Borgne Pilate to put structures in place at of these municipalities and those of Bas Limbe Port Margot and Petit Bourg de Borgne. At the request of MSF - CH, MSF - France then covered the municipalities of Pignon, Dondon, St. Raphael, La Victoire and Ranquitte until late February or MSF - CH then resumed the monitoring of these areas.
This period has also started the implementation of the ORP remote areas through mobile teams 'outreach' who performed in the same time epidemiological monitoring of the disease.

January-June 2011: second phase
Objective: Continue to support and strengthen the center level health, strengthen the training of the DSN, enhance deployment the RFOs for access to care in remote areas, improving the epidemiological monitoring in coordination with the DSN.

Once the situation under control in the main town, the disease has moved in more remote towns also relatively populated areas.
From the February / March, the mobile rapid reaction (RRT) [5] were introduced and took the relay teams' outreach. " The strategy allowed three mobile teams to respond quickly and effectively to outbreaks, and place ORPs at the same time, and track epidemiology of the disease across the Northern Department.

3 PRO = ORP or Oral Rehydration Point = Point of Oral Rehydration
4 CTC = Cholera Treatment Centre; CTU = Cholera Treatment Unit
5 = RRT Rapid Response Team

An agreement with the DSN, the HBC[6] and HHA[7] was finalized for the resumption of CTC Congratulations (At 1st June 2011), the construction of the treatment area and droppings treatment protocol were carried out by MSF at the CTC Bravo (the concrete tanks will be built by the WHO in October to replace the tanks with plastic sheeting).

July-September 2011: third phase
Achieve the passing DSN to supervise the training of municipal and county of DSN, the Ranger Training Community through training WATSAN health workers and supervisors in the DSN.

The number of cases continued to decline gradually, although the villages further away have also begun to be realized.
This period coincided with the establishment of 800 community rangers by the DSN. MSF has focused on the formation of these crossing guards in order to be phased out to give them instead. MSF has completed coverage of the most remote areas by training crossing guards in the awareness and implementation of the ORP missing.
MSF has also conducted training of health workers in the DSN, and the HBC HUJ of hospital hygiene, waste management, water treatment and treatment of waste.
Rangers and nursing supervisors also received training on water treatment. A donation of their testers pool was made so that they can perform tests in their community.

The agreement for the construction of a CTU in the hospital Justinian was prepared and launched by MSF and the DSN. Funding QIP[8]
by MINUSTAH was confirmed (the cost
Additional will be funded by UNICEF) and the work should start in
in October 2011.

These three phases of the intervention were accompanied by an intense awareness, first with patients and carers and with the general population, or by door to door, or in markets, schools, associations, authorities, etc..
To the extent that the messages transmitted in the most remote areas, have understood by the people, the disease can be relatively controlled.
The problem however lies within the understanding of this disease that still faces the popular beliefs and voodoo in the poor hygiene practices difficult to change, the lack of latrines and Access to water is difficult or contaminated water.

6 Hospital in the Baptist Convention of Haiti
7 Haiti Hospital Appeal
8 Quick Impact Project

ACTIVITIES INFORMATION, EDUCATION, COMMUNICATION (IEC)

In parallel with the activities of management of patients with cholera, a
prevention strategy has been in place since the start of operations to
to inform people about the best way to protect against cholera.

IEC sixty agents were deployed initially in the CTC / CTU /
CS[9]
to inform patients and carers about cholera and how
of prevention.
Some officers were then deployed in mobile teams
"Outreach" to intervene in communities, schools, churches,
markets, associations and local authorities.
In a third phase, the mobile teams have been integrated IEC teams
mobile rapid response to extinguish localized outbreaks and inform
the population of the affected areas as quickly as possible.

At the same time, medical staff and WATSAN MSF - CH was
IEC also trained in order to achieve awareness, and more
their task more specialized (medical or hygienic purposes), if necessary. The agents
IEC also followed two WATSAN training to better integrate
principles of hygiene and water chlorination.

These IEC activities have also included as part of a strategy
targeted communication media (radio, television, newspapers) through:
- Press conferences to inform / educate journalists and keep them
inform the development of the disease;
- Awareness sessions for journalists to better understand the
cholera disease and transmit the right messages;
- Radio spots to inform the public on preventive measures on
places where the CTC / CTU and closures structures MSF -
CH; successive radio spots were produced to monitor the evolution of
disease and treatment facilities, and broadcast messages
adapted to the situation.

A - STRATEGY IEC

To perform such work, several strategies have been implemented
successively in order to adapt to changing circumstances:

1 - November to December 2010

9 Centre de Stabilisation

- Initially, the priority was to focus on Cap - Haitien and the
MSF structures in place (CTC, CTU, SC, ORP) by making
prevention activities;
- A distribution of chlorine in municipal several sections, especially in
remote areas with difficult access has been initiated for sections
communal Dondon, Bahon, Acul Du Nord, Plaisance, Pilate, Port Margot and
Borgne.

2 - Second Phase: January to March 2011

The aim was to:
- Achieve the population in the most remote areas to inform the most
Many people on the function performed by MSF - CH;
- Educate the public about any prevention messages to address
against cholera and the location of different points ORP / CS / CTU / CTC;
- Continue the distribution of chlorine cylinders;
- Carry out the pilot assessment of the distribution of chlorine, which took place in the city of
Plaisance. This was primarily intended to identify areas that have been
actually affected by the distribution of Chlorox by the team
IEC / WATSAN the month before.
In addition, the team in charge, has aimed to identify the issues for
be a medium-or long-term cooperation with
development partners: for example, the question of the number of families
with latrines at home was assessed, and the effectiveness of the local radio
in remote locations.
The evaluation of the distribution of Chlorox held in various municipalities in
Department was conducted from January 27 to February 27 in the sections
communal Plaisance, Pilate, Borgne, Port Margot, Bahon, Dondon and Acul From
North.
- Supervise and strengthen the IEC staff (volunteers or not) in different
MSF structures - CH visited (ORP / CTU / CTC).

3 - Third phase: from April to June 2011

These three months were devoted to develop activities to see
what steps it is possible to convince people that cholera is
or those who do not want to apply the principles of hygiene (because for them the
Cholera is an imported disease, and it was never before that to
Wash hands before eating), and to try to see how to manage the
problem of superstition.

**4 - Last phase: strengthening the ability of the DSN for a total withdrawal
July-September 2011**

After the big epidemic that started in November 2010 in the North, there was
a decrease in cholera cases in the department in March.
However, the population in remote areas to continue to be affected by the
Cholera and mini - outbreaks occurred successively in areas

different. The difficulties of access (no roads, very remote areas and must
go walking for hours before reaching a health center)

constitute an additional challenge for patients and health care teams and
of prevention.
To provide a rapid response to outbreaks, a team of two agents IEC
been incorporated into each of the three teams RRT (Rapid Response Teams) composed
each with a nurse or doctor, and a Watsan / IEC. Note that the team
IEC has also received training in WATSAN.

The role of teams RRT / IEC is mainly to support the
health centers to conduct training in the medical field and
logistics, ORP place in areas that deserve it, to sessions
awareness of the general public and municipal officials
(CASEC, ASEC, Mayors, etc.), and finally to strengthen the capacity of the Ranger
DSN-level advocacy, treatment of water and the establishment
of RFOs.

For training CASEC, ASEC, mayors and heads of associations
planning was made by the mayors of each municipality holders. This is what
which enabled us to reach almost all municipalities. Cities that have been
affected are: Cap - Haitien, Limbe, Port Margot, Plaisance, Dondon, St Raphael,
Pilate, Gobert, Borgne, Petit Bourg de Borgne, Ranquitte, Victory.

B - targeted geographic areas

In the northern region of Haiti, major cities affected by the IEC are
following: Cap - Haitien, Dondon, St Raphael, Ranquitte, Pignon, La Victoire,
Plaisance, Pilate, Port Margot, Le Borgne, Plaine du Nord, Acul North
Lemonade, Quartier Morin, Milot, Robillard, Grand River North Bahon.

The 19 municipalities in the department were affected and 75 sections
communal detailed below - below:

Communes	Sections
Cap-Haïtien	Bande du Nord, Haut du Cap, Petite-Anse
Saint Raphaël	Bois Neuf, Mathurin, Bouyaha, Sanyago, Bourg
Bahon	Bois Pin
Dondon	Brostage, Bassin Caïman, Matador, La Guille, Haut du Trou
Ranquitte	Bois de Lance, Bac à Soude
La Victoire	Bourg de La Victoire
Pignon	Savannette, La Belle Mère
Plaisance	Gobert, Champagne, Haut Mathurin, Mapou, La Trouble,
Pilate	Ballon, Baudin, Ravine Trompête, Joly, Du Bourg, Piment, Margot
Acul du Nord	Camp Louise, Basse Plaine, Grande Ravine, Mornet, Coupe à David, Soufrière
Port Margot	Corail, Bas Quartier, Bras Gauche, Grande Plaine, Bas Petit Borgne, Haut Petit Borgne
Bas Limbe	Garde Champêtre, La Frange
Limbe	Ravine des Roches, Ilot à Corne, Haut Limbe, Charbote, Camp Coq, Soufrière
Borgne	Margot, Boucan Michel, Petit Bourg De Borgne, Trou d'Enfer, Champagne, Molas, La Grange
Limonade	Bord De Mer, Bras de Lance, Déréal, Pistere
Quartier Morin	Cadouche, Paroi
Milot	Grand Pré, Bérat, Du Bourg
Plaine du Nord	Robillard, La Suisse, Bois Rouge, Longest, Balan
Grande Rivière du Nord	Cormier, Grand Gilles, Joli Trou

C - IEC STATISTICS

During the period (November 2010 - September 2011), teams
IEC / WATSAN have traveled from Cape Town and other municipalities in the department
by awareness sessions in schools, churches,
associations, markets, homes (door to door) and at the time of
garden parties. They have conducted training for the authorities (mayors,
CASEC, ASEC), leaders of associations, religious leaders,
supervisors, health workers and crossing guards in the DSN. IEC officials have
also aware of people living on the streets (beggars, etc.)..

Number of people educated (November 2010-September 2011)

Description	Nombre	Nombre de personnes sensibilisées
Communes	19	
Maisons	10,564	71,548
Marchés	25	44,506
Ecoles	50	31,546
Associations	89	36,298
Eglises	15	20,918
Autorités		151
Brigadiers		578[10]
TOTAL		**205,545**

Total number of persons in the department aware of the North:
205.545

10
The number of crossing guards trained by the RRT is 650. The difference in the number of crossing guards
counted here by the IEC is due to the fact that ACE inhibitors have missed a few training sessions
crossing because of other activities at that time.

D - CONCLUSION

During those 11 months, the IEC has worked hard to cover almost
while the Northern Department by awareness sessions on methods
and means of prevention of cholera. These activities were undertaken with a
direct oral communication through the IEC officials, and through radio
and journalists.

Many people were affected in different locations in rural areas
and urban areas: schools, churches, associations, houses, markets, governments, people
streets, etc.., were targeted. A total of more than 205,000 people were affected by
IEC activities by MSF - CH between November 2010 and September 2011.

In general, the majority of people now know the disease
and knows what to do if a family member is suffering from
cholera.
Other organizations on the department took the baton, particularly 800
Rangers of DSN, 200 Haitian Red Cross volunteers
and other members of NGOs.

However problems with the voodoo, superstition and stigma
persist and have been the most challenging teams on the ground IEC
for the duration of the mission.

During their work, officers were confronted with people who did not want
listen to them and were sometimes threats. One reason being that they
thought it was an imported disease, and did not accept it as
disease but only as superstition (fetish).

Another major problem concerned the people who fell ill and who
would not attend the health centers or ORP close to home
to hide in their community they were sick to avoid being
rejected. This resulted in additional risks to them as they were then
not getting treatment.

Mobile teams QUICK RESPONSE
or Rapid Response Team (RRT)

OBJECTIVES, STRATEGY, and ROLE

1 - INTRODUCTION

Following the outbreak of the Cap - Haitien and the Northern Department, which started in
November 2010, the number of cases decreased significantly from month
in March 2011. However, people in remote areas were also
gradually affected by the disease. The inaccessibility of these areas
(Rough roads, many hours of walking to reach the first
health center) contributed to the increase of cases in these remote villages,
and therefore this is at the CTC / CTU for patients arriving
finally reach them.

The epidemic is devastating the beginning has given way to small outbreaks
localized, by chance, do not occur simultaneously in
different parts of the department, but successively from one area to another.
Outbreaks last approximately two weeks before moving on
another area. The birth and evolution of these outbreaks are unpredictable and
logic still difficult to understand. The west of the department (Port Margot and
Blind) was little affected by these outbreaks so far, but since September
sees a slight increase in cases. The south by the Department was against
subject to several outbreaks in a row. Cape Town - Haitians have been affected for
first time in June / July 2011 by an outbreak from the big epidemic
November / December 2010 and again in September 2011.

The need for support, monitoring, training and awareness is clear.

It was now essential that this be achieved by the various health centers
and clinics so they can continue to operate independently
outside help.

To perform this monitoring, MSF - CH formed and trained mobile teams
rapid response. These teams consisted of a nurse or
a doctor and an IEC / WATSAN. They had at their disposal vehicle and
MSF driver.

To meet localized outbreaks in June and July 2011, a team of two IEC
(Who also trained WATSAN) was temporarily attached
RRT each team to "put out the fire." After training by the RRT on
the establishment of regional fisheries organizations, the IEC took over the communal aspect of
awareness and the implementation and monitoring of regional fisheries organizations, in close
collaboration with the Rangers.

2 - GENERAL PURPOSE
Reduce mortality and morbidity due to cholera in the northern department
of Haiti.

3 - SPECIFIC OBJECTIVE
Coordinate with permanent teams in the field, especially
medical supervisor of the Department of Health North (DSN) and Ranger
supervisors, as well as health centers, clinics, SC, ORP and brigades
community for the establishment of a rapid response system in the
or localized outbreaks of a new cholera epidemic.

4 - OPERATIONAL OBJECTIVES
1. Support / training in the supervision of DSN services that take into
charge of cholera patients;
2. Training in the medical and logistical support to field actors
responsible for the fight against cholera
3. Extending coverage of first aid in the municipalities by placing
RFOs, in coordination with the crossing guards and their supervisors;
4. Awareness of the general population and municipal officials in
particular (CASEC, ASEC, community leaders, etc.);
5. Data collection and epidemiological surveillance in coordination with the
DSN;
6. Participation and support for the implementation of the supply circuit
structures by the DSN.

5 - RRT STRATEGY

The teams consist of:
- A professional nurse or a doctor, an IEC / WATSAN
attached to the monitoring of health centers. They are responsible for medical but also of hygiene (chlorine solutions, circuits, and isolation training / update hygienists on the preparation of solutions) to level health facilities and awareness of patients and accompanying persons. They must carry out these activities in conjunction with nurses / doctors supervisors DSN.
- 2 IEC / WATSAN who are responsible for implementing and monitoring RFOs, control water source, community awareness (From house to house in the remote villages, for example). They must carry out these activities in conjunction with the Community Rangers DSN.

RRT teams went into the common every Monday to visit CTU priority is - to - say those who were suffering from localized outbreaks or where problems were identified during previous visits. The CTU surrounding areas affected by the outbreaks were visited by the IEC.

In cases of emergency when CTU was overwhelmed or if the staff was on site not enough or was not formed, the team RRT, with supervisors responsible for the DSN, then providing temporary support to guide and to better train staff on site. This allowed to give the DSN time to find an adequate solution. The teams brought also support the establishment of a supply circuit functional.

During the last 2 months of August and September and before leaving the area, coordination with the staff supervisor of the DSN and already on the crossing field, the RRT have established in remote villages to new RFOs able to deal with potential outbreaks. This allowed the population to have quick access to first aid. At the same time, the team Ranger was oriented constant awareness of the population each village.

These teams ran RRT to a stabilization of the epidemic and to that municipalities and health centers become independent and have the ability to manage the endemicity of the disease as well as localized outbreaks. They stopped work in late September 2011, after the medical staff and Logistics health centers, medical supervisor of the DSN, the crossing supervisors and sergeants of the DSN have received training appropriate (medical, IEC, WATSAN and establishment of RFMOs) to take support patients and communities and to manage the endemicity of cholera.

6 - PROCUREMENT STRATEGY

In this context, the DSN, through UNICEF with funding from IDB, provides salary of 800 community rangers and dozens of staff additional medical and hygienic at health centers. Following a request of the DSN and UNICEF, MSF has trained supervisors in a DSN theory and practice and worked with them until a supervision has been adequately established by the DSN.

17 nurses / doctors Supervisors (county and municipal) of the DSN received training conducted by MSF - CH July 23. From July 25, the RRT and IEC teams have started working with municipal supervise and crossing supervisors.

Supervise county participated in the planning and evaluation of the activities they have gradually taken over until the final passing.

These activities were also coordinated with other organizations, especially OXFAM, CESVI and the Haitian Red Cross (200 volunteers in eight municipalities) that implement outreach and / or regional fisheries organizations

in some areas of the department with the Ranger Community also.

The period of award is always a difficult period when it comes to juggling between the establishment of adequate support to address outbreaks and support for strengthening the ability of the DSN to manage endemic and localized outbreaks. The need for increased personnel must absolutely be done in coordination with the DSN in order not to short - circuit and cause additional problems in the medium and long term.

On September 30, 2011, MSF - CH has ceased its activity field, the DSN is now fully responsible for the care of patients. The 800 crossing the DSN continue awareness and the implementation and monitoring of RFOs.

We thank all our partners, particularly the DSN for the collaboration and the work done during the past 11 months in the fight against cholera in the north department.