## Tropical Cyclone Pam



## Government of the Republic of Vanuatu

# Health Cluster Strategic Plan

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## May – December 2015

# Health Cluster Strategic Plan

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**EXECUTIVE SUMMARY**

Tropical Cyclone Pam (TC Pam) hit Vanuatu on 13 March 2015 affecting 22 islands in the four provinces of Malampa, Penama, Shefa and Tafea. This has been the most destructive cyclone that has hit Vanuatu, causing extensive damages to housing and infrastructure, disruption of health services, electricity, transport and communication, shortages of food and water supplies. Although the cyclone only caused 11 deaths, many hundreds of casualties resulted, including more than 70 medical evacuations to the referral hospital.

The National Disaster Management Office (NDMO) quickly responded by coordinating and mobilizing essential lead clusters to undertake rapid assessments and quick responses to save lives. The Ministry of Health (MoH) led health cluster pulled together multiple efforts to deliver assistance where they were most needed, including emergency life saving health care, medical evacuations, and health assessments. Twenty foreign medical teams (FMTs) provided emergency care within the first three weeks to support critical care in affected areas. Key members of the health cluster team swiftly mobilized and distributed emergency medical drugs and supplies through the MoH to reach the most affected communities. Public health interventions including early warning disease surveillance systems were established to detect and respond to outbreaks.

Following the first phase of emergency response, the MoH led Health Cluster has developed this Strategic Plan to provide guidance and focus on key interventions to help the recovery phase over the next eight month period ending December 2015. Under the overarching goal of reducing mortality and morbidity, the Strategic Plan outlines three main objectives. Each objective comprises a set of activities designed to facilitate the restoration of the health system and essential health services.

The three objectives are:

1) To meet the remaining life-saving needs and basic health needs of people affected by TC Pam through efficient coordination of international and national assistance.
2) To work within the existing health system to re-establish and strengthen health services across all affected areas.
3) To assist MoH to put in place mechanisms for preparation for future disasters using lessons learnt from response to TC Pam.

The MoH will take the lead role to translate the Strategic Plan into a practical and feasible implementation plan that can be achieved within the timeframe. This includes coordination of inputs and resources from the various health cluster agencies. The timeframe for the implementation of the Strategic Plan will extend beyond the three month emergency response phase, allowing MoH and its health cluster development partners to work together over the longer term to restore the health system functions and to “build back better.”

## 1. Rationale

The immediate impact of TC Pam exerted additional pressure on Vanuatu's health system which was already struggling to deliver essential health services. The Health Cluster Strategic Response Plan is designed to support the MoH response to the immediate health needs of the people affected by TC Pam and plan for the early recovery phase. The Health Cluster, led by MoH has provided a coordinated approach to health related activities covering both emergency health care and acute response measures to the affected population during the immediate post-cyclone period.

**Linking to health sector longer term strategic planning**

During the recovery and development phase of the next three to eight months, the MoH will take leadership and ownership of the Strategic Plan, including the coordination of health cluster partners. The ongoing support from development partners is appreciated to assist the MoH in implementing the activities outlined in the Strategic Plan.

The Health Cluster Strategic Plan has provided the foundation for the development of the health component of the Humanitarian Action Plan. It also represents the health sector's component of the Government of Vanuatu's Sustainable Action Plan. The Strategic Plan builds on the existing MoH *Health Sector Strategy 2010-16* and takes into account the collective analysis of the post-cyclone situation by the Health Cluster. The Strategic Plan will therefore provide support and longer term planning guidance to address priority issues for the transition from the emergency phase to recovery and rehabilitation. It is also expected that this Strategic Plan, with its focus on restoring and strengthening health services, including improving our preparedness for future disasters, will provide important momentum and direction for MoH in the transition to its next Health Sector Strategy 2017-23.

This Health Cluster Strategic Plan sets out the objectives and proposed operations over the early recovery period, with a timeframe of eight months. During this time, the health cluster partners will continue to work through the MoH to provide essential health care services, with the aim of providing a smooth transition towards rebuilding the health sector. This Strategic Plan identifies existing needs and articulates key objectives and activities, as prioritised by the MoH, in response to the disaster.

## 2. Crisis context

Prior to the cyclone, Vanuatu's health system had been described as *fragile*, with insufficient facilities and health workers to meet the health needs of a largely rural population. This already fragile system has posed multiple challenges for health care delivery.

Although significant health gains have been made in the past 20 years, Vanuatu continues to have poorer health outcomes compared to other countries in the Western Pacific Region. Life expectancy is 70 years for males and 74 years for females *(WHO, Vanuatu: WHO Statistical profile, 2013*). Based on the 2013 demographic health survey (DHS), the under-five mortality is estimated at 31/1,000 live births, infant mortality at 28/1000 live births and neonatal mortality at 12/1000. Maternal deaths occur at around 6-8 deaths per year in the last five year period, translating to a maternal mortality ratio of approximately 110/100,000 live births. Antenatal care of at least four visits is recorded at

52%, delivery in a health facility is 88% and delivery by a skilled health attendant is 89%. The DHS also recorded a relatively high crude birth rate of 32.5/1000 while the contraceptive prevalence rate for modern contraceptives is only 34%. The total fertility rate is 4.2 and this has remained static since the 2009 population census recorded a rate of 4.1. The total number of births in the country is approximately 8,000 per year and the annual population growth rate is 2.3%. Coverage of essential and cost effective child survival interventions are suboptimal.

The health system in Vanuatu has suffered long standing challenges affecting its capacity to deliver accessible quality services at all levels of the service delivery system. Limited resources – including financial, equipment and supplies, infrastructure, human resources and leadership and management capacity have contributed to a weak health system. Resources are concentrated on the two referral hospitals while community health, public health and primary health care are disproportionately resourced.

Public health issues comprise a double burden of both communicable and non-communicable disease, with additional challenges from emerging infectious diseases and climate change, maternal and child health problems, unhealthy nutrition, childhood malnutrition, and water and sanitation problems.

Shortage of health staff has been a chronic problem. A review of Human Resources for Health in Vanuatu in 2012 showed a severe and critical health workers shortage (*WHO, Human Resources for Health Country Profiles: Republic of Vanuatu, 2013)*. Vanuatu has the third lowest health workforce density in the Pacific region with the greatest shortages in rural areas. It has been estimated that 1,261 health workers were employed in the public sector in 2012, including 397 nurses and midwives, and 46 doctors *(WHO, Human Resources for Health Country Profiles: Republic of Vanuatu, 2013)*. This is equivalent to 1.77 health workers per 1,000 population, which is considerably lower than the WHO recommended number of 2.3 health workers per 1,000 people. Geographically, there is an unequal distribution of health facilities *and* skilled health workers, both between provinces and within provinces and between urban and rural populations The ratio of doctors per head of population in rural areas is 1 : 47,250, compared to 1 : 1,492 in urban areas. Although the province of Torba has the highest density of health workers, there is no medical doctor present and health services are mostly delivered by community health workers. The provinces of Shefa and Sanma have the highest number of doctors and greatest range of health services, however these resources are centred around tertiary care facilities.

## 3. Situation Analysis

TC Pam was described as one of the most destructive cyclones in the Pacific and caused immense devastation. The cyclone affected over half of Vanuatu's population of 268,000, causing widespread and severe damage, particularly in the central and southern regions. *Figure 1* shows the path of the cyclone and the areas most affected.

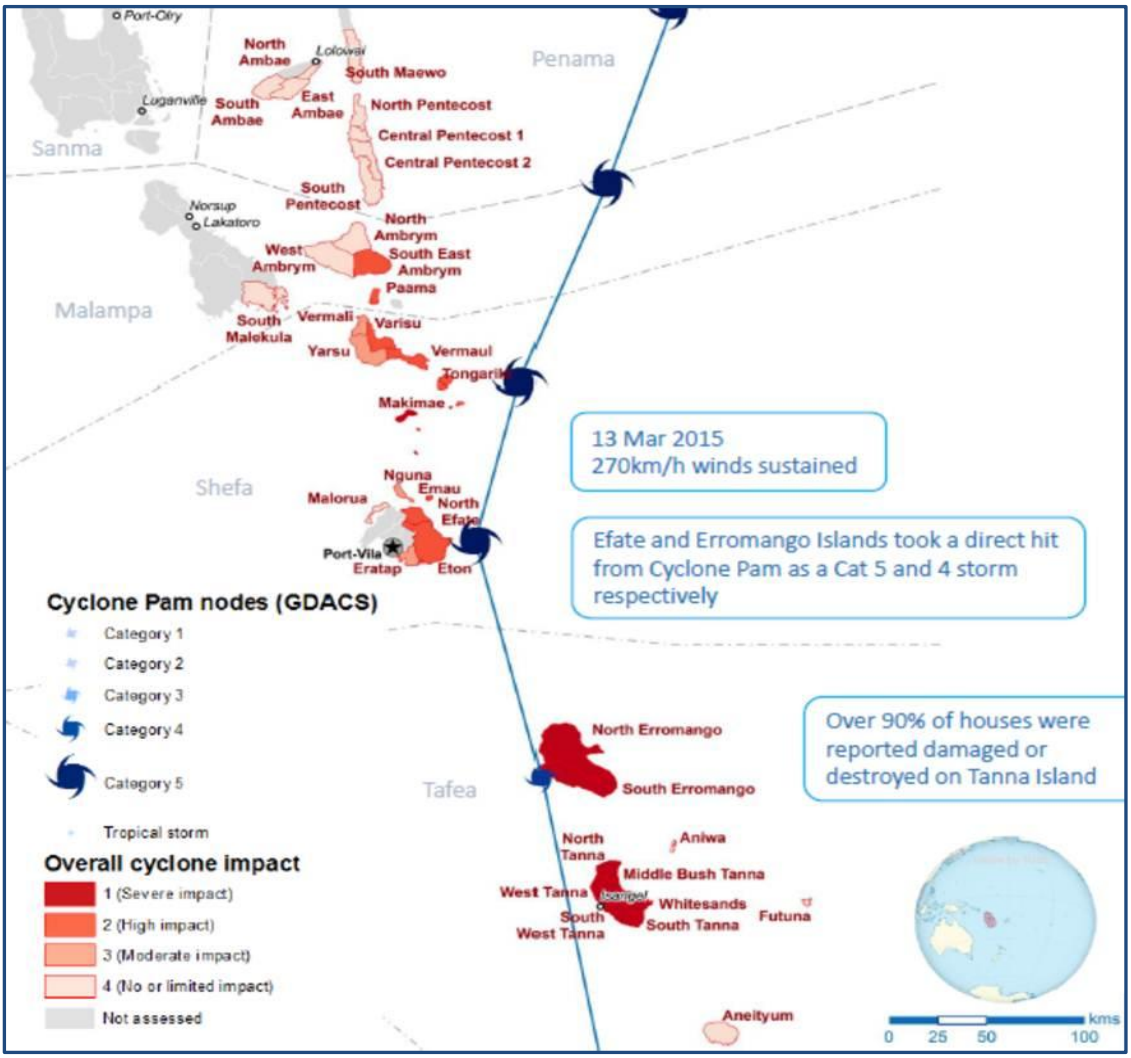
The impact of the cyclone was greatest in the provinces of Penama, Malampa, Shefa and Tafea. The islands of Efate (the main island where the capital Port Vila is situated), the Shepherd Islands, Erromango and Tanna were the most severely impacted. Up to 70% of houses were destroyed with major loss to subsistence farming and home gardens. Electricity and water supplies were interrupted and many people were displaced from homes and islands. Major infrastructure has been damaged,

with loss of roads, bridges and telecommunications in many areas, adding to the challenges of immediate post-cyclone responses.

TC Pam caused 11 deaths, while more casualties needed emergency medical evacuations, which overloaded the referral Vila Central Hospital (VCH) in the first three weeks post-cyclone. The immediate impact of the cyclone on the health system has been substantial, causing severe disruption of health service delivery, mainly due to damaged health facilities, staff shortages, interruption of telecommunications, and the disruption of water and energy supplies. The rapid establishment of life-saving operations by FMTs on ground substantially reduced the total numbers of fatalities and emergency medical evacuations.

Emergency responses with the goal to saving lives were established immediately post cyclone. The joint Health Cluster response led by the MoH coordinated the efforts of over 25 local and international health partners. Substantial interventions have occurred over a short period of time to save lives and reduce further morbidity, yet there is clearly a need for ongoing relief assistance in hot spots of underserved affected populations. At the same time, implementation of health sector early recovery interventions need to occur according to the strategic objectives and main activities outlined in this document.

***Figure 1: Pathway of Cyclone Pam over Vanuatu showing areas most affected.***




Source: World Food Programme report: Vanuatu, The impact of Cyclone Pam. 2015

# 4. Health and Nutrition Assessment[1]

**KEY FINDINGS**

1. A high proportion of health facilities were damaged, however all but seven facilities (which are currently non-functioning), remain either partially functioning (19) or fully functioning (45).
2. The provision of health services has decreased in all sectors of health care delivery, in particular general clinical and child health services.
3. Overall the impact on the capacity of the health services to deliver curative and preventive services has been significant, in a very fragile health system with low levels of health staff, especially medical doctors and midwives before the cyclone.

## 4.1 DAMAGE TO HEALTH FACILITIES[2]

***Table 1. Damage to health facilities by health facility type on affected islands, March 2015.***

| Health Facility | Destroyed | Major | Minor | None | Total |
|---|---|---|---|---|---|
| **Dispensary (D)** | 5 | 2 | 28 | 15 | 50 |
| **Health Centre (HC)** | 1 | 6 | 7 | 5 | 19 |
| **Provincial Hospital (Prov. H)** | | 1 | | | 1 |
| **Referral Hospital** | | | 1 | | 1 |
| **Total** | 6 | 9 | 36 | 20 | 71 |

There are 71 health facilities on islands affected by TC Pam, including eight non-government owned facilities but excluding aid posts. Assessments of varying detail have been conducted in all affected facilities. Of the 71 facilities that have been assessed, there were six facilities that were destroyed and nine facilities with major damage (*Table 1*). Minor damage was reported in 35 facilities and there was no damage reported from 19 facilities. All assessed health facilities remain operational except for seven; Imere (Efate), Naviso (Maewo), Ikiti and Kitow (Tanna), Amboh (Tongariki), Nimair and Tavalapa (Tongoa). Imere health centre, which reported only minor damages, is closed due to a lack of staff after the cyclone.

[1] The full findings of the Second Phase Harmonized Assessment Report can be found at: http://www.humanitarianresponse.info/en/operations/vanuatu/document/second-phase-harmonized-assessment-report-april-2015

[2] This section has since been updated after the Second Phase harmonized Assessment findings to reflect the current situation.

**Shefa** was the most affected province with 21 of 24 (87.5%) health facilities damaged. Three out of four health facilities on Tongairki and Tongoa were destroyed.
In **Tafea** province, nine out of 12 dispensaries and all four health centres were damaged. The Provincial hospital was severely damaged (82% of all facilities). Ikiti dispensary and Kitow health centre are not functioning.
In **Penama** (excluding Ambae), 11 of 31 (36%) of health facilities are damaged. Naviso Dispensary (East Maewo Island) is not functioning at this time.
In **Malampa** (excluding Malekula), six out of eight (75%) health facilities were damaged.

Among the 16 health facilities that have received major damage or been fully destroyed, three have been repaired to enable service provision through Australian and New Zealand defence forces. Establishment of temporary facilities (tents) at the eight most severely affected sites is currently ongoing and will be completed before the end of May. In the meantime, planning for full repairs of health facility damage is ongoing and will commence once detailed site assessments have been undertaken. To date three of these detailed site assessments have been completed.

***Table 2. Health facility damage in each province and type of reconstruction planned***

### Malampa Province

| Facility Name | Type of Facility | Status | Damage | Quick fix | Temporary | Partner, Status, date of completion |
|---|---|---|---|---|---|---|
| **Utas** | HC | PF | Major | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by end May |

### Penama Province

| Facility Name | Type of Facility | Status | Damage | Quick fix | Temporary | Partner, Status, date of completion |
|---|---|---|---|---|---|---|
| **Naviso** | D | NF | Destroyed | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by end May |

### Tafea Province

| Facility Name | Type of Facility | Status | Damage | Quick fix | Temporary | Partner, Status, date of completion |
|---|---|---|---|---|---|---|
| **Green Hill** | HC | PF | Major | To be planned | 72 sqm tent | UNICEF/MoH by 09 May |
| **Ikiti** | D | NF | Destroyed | To be planned | 45 sqm tent | MoH by 09 May |
| **Imaki** | HC | PF | Minor | To be planned | N/A | |
| **Kitow (Nagus Kasaru)** | HC | NF | Destroyed | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by 09 April |
| **Lenakel** | Prov. H | PF | Major | **In patient wards** | | **Completed by Aus Army** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | MCH clinic | | Completed by Samaritans Purse. |
| | | | | Water system | | Completed by Samaritans Purse. |

## Shefa Province

| Facility Name | Type of Facility | Status | Damage | Quick fix | Temporary | Partner, Status, date of completion |
|---|---|---|---|---|---|---|
| **Amboh** | D | NF | Destroyed | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by 09 May |
| **Nimair** | D | NF | Destroyed | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by 09 May |
| **Paunangisu** | HC | PF | Major | To be planned | N/A | |
| **Port Quimmie** | **D** | **PF** | **Major** | **Complete** | | **Repair of roof and solar power completed by NZDF** |
| **Silimauri** | HC | PF | Major | To be planned | N/A | |
| **Silmoli** | D | PF | Major | To be planned | N/A | |
| **Tavalapa** | D | NF | Destroyed | To be planned | 6m x 6m tent & 4m x 4m tent | MoH by 09 May |
| **Vaemali** | **HC** | **PF** | **Major** | **Complete** | | **Repair of roof, electrical wiring, and water supply completed by NZDF** |
| **Vaemauri** | HC | PF | Major | To be planned | N/A | |

**FF = Fully functioning; PF = Partially functioning; NF = Non functioning**

## 4.2 HUMAN RESOURCES

**1. Current Human Resources in Affected Islands:** The Sphere Standards in Health Action[3], one of the most widely known and internationally recognized sets of common principles and universal minimum standards in life-saving areas of humanitarian response require a minimum of 22 health workers/10,000 people in population. Health Workers in Vanuatu include the following categories: doctors, nurse practitioners, midwives, registered nurses and nurse aids.

[3] http://www.sphereproject.org/

***Table 3. Human Resources in 22 Affected Islands, March 2015***

| Province | Population | Medical Doctor | Nurse Practitioner | Midwife | Nurse | Nurse Aid | Total number of health workers | Health workers/ 10,000 population |
|---|---|---|---|---|---|---|---|---|
| **Malampa** | 10189 | 1 | 1 | 2 | 6 | 5 | 15 | 15 |
| **Penama** | 24800 | 2 | 0 | 2 | 21 | 17 | 42 | 17 |
| **Shefa** | 97900 | 13 | 4 | 15 | 129 | 28 | 189 | 19 |
| **Tafea** | 34758 | 1 | 0 | 5 | 32 | 9 | 47 | 14 |
| **Total numbers of health workers** | **167647** | **17** | **5** | **24** | **188** | **59** | **293** | **17** |

The numbers of health staff presented in the data include health workers at government and municipal operated health facilities. Privately owned hospitals and clinics were not included in the dataset. The numbers of health staff presented were assessed as before TC Pam. Of the data that was collected after TC Pam, a decrease of only four health staff was noted. This included one midwife in Malampa province and three nurses in Tafea province. The staff of the destroyed health facilities have been repurposed to serve other areas or support the on-going measles vaccination campaign.

The overall national ratio is far from the minimum threshold indicated by Sphere and WHO of 22 health workers per 10,000. There is an unequal distribution of the health workers with a high concentration in the capital town, which has a ratio up to 19 for almost a quarter of the population of the country (please see the full assessment report for more detailed information). In other provinces the ratio drops down to 14. The table presents the total population by province to indicate which areas have a high or low ratio of health workers per 10,000 population.

A second important observation relates to the composition of the overall workforce. Midwives and nurse practitioners undertake four years and six months of training (which includes three years of basic nurse education), registered nurses undertake three years of training, and nurse aids undertake nine months of training. Whilst nurse aids have limited official training time, they often replace registered nurses as the only health staff for some dispensaries in more remote areas due to the lack of staff available. Nurse aids are often faced with community demands for health services which they are not trained for – such as maternal and child care, management of common illnesses and injuries. With nurse aids representing 36% of the workforce outside the referral hospital, quality of care becomes a concern particularly in dispensaries operated only by a nurse aid.

Within the overall nationwide ratio of 17 health workers per 10,000 population, the proportion of medical doctors and midwives remains very low. This presents a concern for the services able to be provided, particularly to mothers, newborn and children, considering the high maternal and neonatal mortality rates.

**2. Foreign Medical Teams:** A total of 20 FMTs have provided support to Vanuatu during the first month after the disaster. Eleven out of the 20 FMTs left Vanuatu by 6 April, after completing on average a two week deployment. All FMT's deployed to Vanuatu except one are Type 1 teams, which means that they provide outpatient care either through fixed clinics or mobile teams. The Type 2 team, who supported from day two post cyclone, provided assistance at the main referral hospital, VCH, with outpatient and inpatient care and surgical capacities for emergency care, general surgery, and intensive care. Two FMTs provided specialized services at VCH.

During the first month of the operation, over 140 medical staff were deployed with FMTs supporting the MoH, delivering, among other services, over 9,000 consultations. The majority of FMTs that worked at MoH health facilities supported existing staff either in a moving or fixed location. A small number of FMTs provided consultations in the communities where there was no health infrastructure.

The number of FMTs will further decrease with only four teams still operational at the end of April. Vanuatu has received support in health service provision through mobile clinics conducted by Non Governmental Organizations for many years and it can be expected that this form of support will pick up again in the coming months.

### 4.3 WATER AND SANITATION IN HEALTH FACILITIES

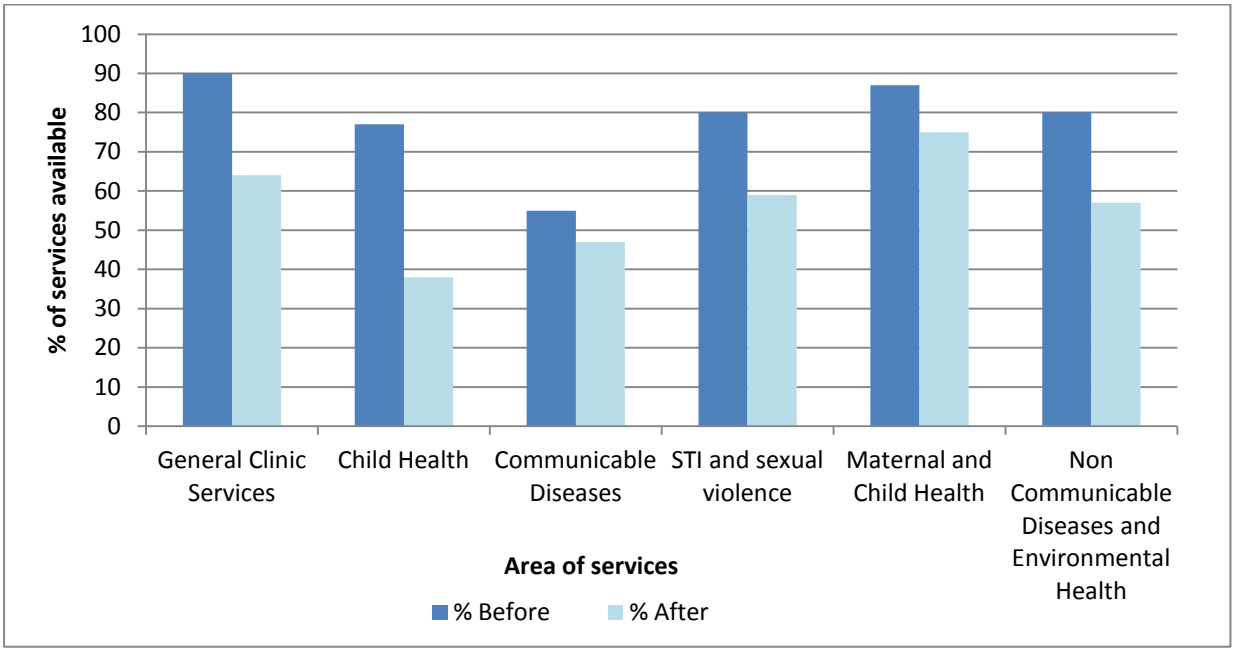
**1. Water:** The availability of adequate water supply was assessed through the availability of water, uninterrupted supply of water and whether there was adequate storage of water. In addition, the risk of contamination to the water supply was assessed. Data was available from 64 facilities. An inadequate supply of water was reported from 31 (48%) facilities. Water supply was un-chlorinated in 50 facilities (78%). Water supply was considered to be at risk of environmental contamination in 18 facilities. Twenty six facilities are functioning without an adequate supply of water.

**2. Sanitation:** The availability of adequate sanitation was assessed through the availability of toilets. Data was available from 38 facilities; 33 (87%) facilities reported there were toilets available however two of these were not functioning. The five health facilities without toilets reported they were destroyed during the cyclone.

## 4.4 AVAILABILITY OF HEALTH SERVICES

Multi-cluster assessments with the full Health Resources Availability Mapping System (HeRAMS)[4] tool were conducted on nine health centres and 13 dispensaries. The assessment was done according to six areas of services: general clinical, child health, communicable diseases, STI and sexual violence, maternal and newborn health and non-communicable diseases and environmental health. There are between three and seven services per each of these six areas, as detailed in the HeRAMS check list adapted to the local health system.

***Graph 1. Overall Health Services Availability at Health Centres and Dispensaries, pre and post-Cyclone***



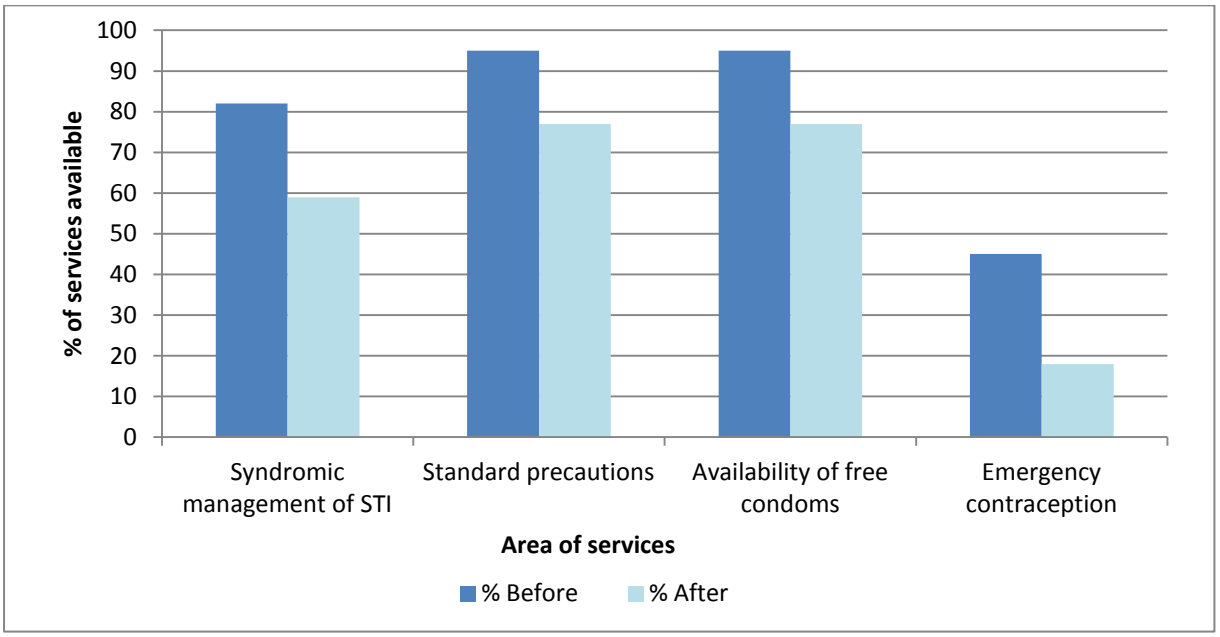

The **provision of services declined in all areas** following the cyclone. The greatest decline was in the provision of child health services, mainly due to the interruption of the immunization activities and school visits.

The largest decline in general service provision was in referral capacity where there was a 36% decline. This decline is a result of a lack of telecommunications, physical barriers to movement by road and interruptions in transport availability. Home care visits were impacted by the availability of health staff and transportation difficulties.

The treatment of selected **communicable diseases** has been reduced due to the unavailability of microscopy and rapid tests and of essential medicines.

[4] http://www.who.int/hac/network/global_health_cluster/herams_services_checklist_eng.pdf

*Graph 2. STI and sexual violence services availability for Health Centres (9) and Dispensaries (13)*




**Sexually transmitted infection and sexual violence** services have been disrupted due to damage to supplies, in particular stock out of essential drugs. It has to be noted that the level of availability of services for sexual violence, such as provision of counselling, post exposure prophylaxis (PEP) and emergency contraception, were extremely low before the cyclone, highlighting an area that needs special attention in the planning of the health sector recovery.

**Maternal and newborn care** related services had an overall moderate decrease after the cyclone, but the situation is still alarming in this area. Maternal and neonatal mortality rates are higher in Vanuatu compared to other Pacific island countries. The attendance of deliveries by skilled birth attendants has to be improved, particularly in the rural areas, as well as the quality of antenatal, intra-partum and postnatal care of these services and family planning. Priority attention will be needed in planning selected interventions in the health sector recovery phase.

While the availability of treatment of chronic conditions shows a moderate reduction, it shows a marked reduction for mental health, where the pre cyclone level was already low. The need to provide care for mental disorders at primary care will need to be addressed, with a possible start during the recovery phase.

The outreach of environmental health services is in line with the other reductions of outreach services in school health and home visits, as highlighted in the previous paragraph. This is due to the increased workload for curative services at the health facilities. The resumption of community based public health interventions is a priority area to be addressed in the next phase.

## 4.5 KEY RECOMMENDATIONS

1. Repair and reopen the six destroyed and the nine facilities with major damages, and re-establish all health facilities to fully functioning status, including adequate water and sanitation
2. Ensure adequate human resources are available to address the increased health needs of the communities, and avoid a drop in service delivery coverage following the departure of foreign medical teams
3. Ensure availability and distribution of essential medicines including immunisation and cold chain capacity
4. Finalize and start the implementation of a "building back better" strategic plan for health sector recovery addressing pre cyclone health inequities

## FIRST MONTH RESPONSE OF THE HEALTH CLUSTER

Over 20 health cluster partners have frantically worked in the past month to ensure that the health and nutrition needs of the affected communities are met. Below is an outline of the key interventions that took place.

**Government led assessments:** The harmonized assessment led by the government and covering five sectors has been concluded. Key findings for health are:

- A high proportion of health facilities were damaged, however all but seven remain partially (19) or fully (45) functioning.
- The provision of health services has decreased in all sectors of health care delivery, in particular in the general clinical services and in the child health ones.
- Overall the impact on the capacity of the health services to deliver curative and preventive services has been significant, in a very fragile health system with a low level of health staff particularly in regards to medical doctors and midwifes before the cyclone.

The World Bank led Post Disaster Needs Assessment (PDNA) indicates that the total effect of TC Pam on the health sector is estimated to be approximately VT 976.2 million, split VT 869.9 million (89%) for damage and VT 106.3 million (11%) for loss.

**Re-establishment of key health services:** The reproductive health unit in the MoH together with key partners are working on the re-establishment of key reproductive, maternal, newborn and child (RMNCH) health services and to 'build back better.' The results of the assessment will guide prioritization of the support including equipping basic emergency and essential RMNCH equipment, drug and supplies; health workers' training and appropriate skills enhancement capacity, targeted advocacy and communication strategy to improve women and community behaviour on early antenatal and postpartum care.

**Drugs and Medical Supplies:** The Central Medical Store continues assisting in the distribution of emergency medical drugs and supplies to health facilities with increased needs while fully resuming its routine supply services.

**Foreign Medical Teams (FMTs):** The number of operational foreign medical teams further decreased to six teams– with two teams having left Efate and Tanna islands and one commencing mobile (ship) services to remote islands in Tafea province. The government of Fiji will deploy nine midwives at the

end of April to support VCH for one month. A Department of Health team from the Philippines was due to arrive in May but this deployment has now been cancelled.

**Emergency Medical Evacuations:** 71 medical evacuations have been carried out during the first month of response. While the number of medical evacuations is decreasing the medical referral system that was severely hampered by lack of communication and transport is picking up as the situation stabilizes.

**Immunization:** A catch up campaign of measles vaccine including the distribution of Vitamin A and de-worming for 25,000 children less than five years took place on the affected islands of Efate, Sanma and Tanna. These areas already had a high population with immunity gaps before the cyclone. The national cold room was immediately restored through a standby generator and temporary repair, thereby preventing vaccine losses and making measles vaccines available for the immediate campaign. As to date, 79% of the children have been reached for measles vaccination, Vitamin A and de-worming treatment. The integrated services delivered during the campaign were also used as mechanism for breastfeeding promotion, hand washing with soap and early detection of acute malnutrition.

**Disease surveillance:** Forty five cases of acute fever and rash (AFR) on Erromango were investigated and clinically diagnosed as chicken pox. There was an increase in reports of AFR in Port Vila and Influenza like illness in Tanna. Four newly diagnosed cases of TB were also reported on Tanna island. The high number of diarrhoea cases continues to be monitored in Tanna. EWARN systems being set up on Pentecost and Maewo islands.

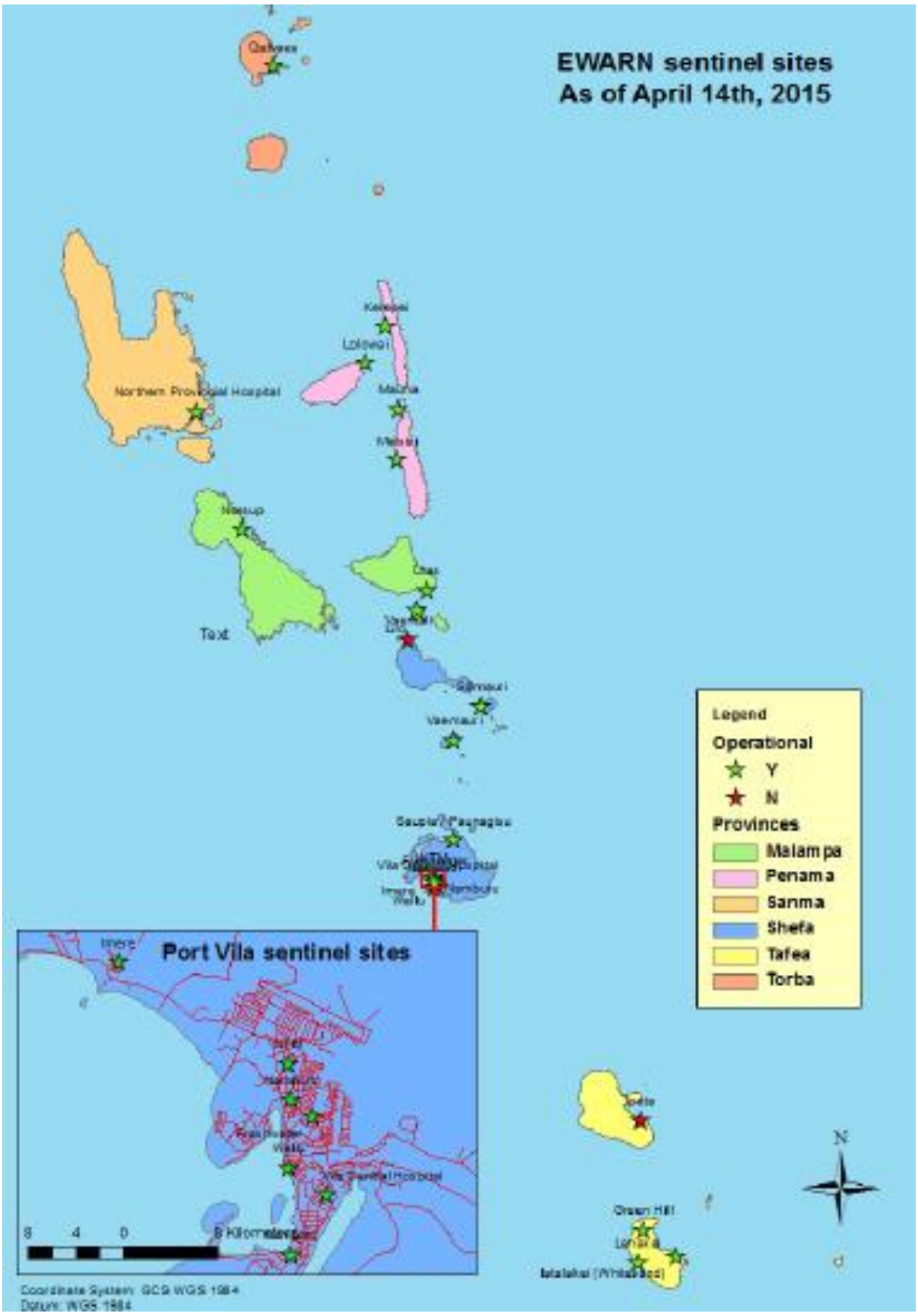
**Vector-borne disease control:** As of Tuesday 14 April, 23,540 bed nets have been distributed to protect 30,076 persons in northern parts of Port Vila.

**Nutrition:** The nutrition working group have supported existing inpatient treatment of severe acute malnutrition services at three hospitals (Lenakel Hospital, Northern Provincial hospital and Vila Central Hospital); 2361 children have been screened for acute malnutrition in Tanna as part of the immunisation campaign; nutrition surveillance has been integrated at eight sentinel sites in Efate; and 2831 caregivers of children under 23 months have received education and counselling on appropriate and continued breastfeeding and complementary feeding.

**IEC:** The SMS health alerts campaign continues, with more text messages planned on nutrition and vector-borne disease prevention. Health messages continue to be disseminated through local radio and newspaper. Members of the Vatu Mauri Consortium returned from Tanna and the Shepherd islands from disseminating health messages to community leaders.

**Funding Gap:** According to UNOCHA FTS, 50% of the requested USD 30 million for the Cyclone Pam Flash Appeal has been met. Of the USD 5,038,408 in CERF funding, over USD 2.3 million has been disbursed within the health sector, towards the restoration and improvement of health services and public health interventions in cyclone-affected areas, reproductive health, and emergency health and nutrition support. The Australian government announced a further AUD 1.5 million to repair health infrastructure, re-stocking of pharmaceutical supplies, strengthening of immunization and support to the cold storage and transport of medicines. Of this, AUD 250,000 will be dedicated to the coordination of health cluster partners and continued disease surveillance and outbreak response.

**Number of completed and proposed activities from health sector partners over time from 13 March 2015**


EWARN sentinel sites
As of April 14th, 2015
Northern Provincial Hospital
Malampa
Penama
Sanma
Shefa
Tafea
Torba
Legend
Operational
Y
N
Provinces
Port Vila sentinel sites
Ocean Hill
N

## Overarching Goal

***To reduce morbidity and mortality associated with the destruction caused by Tropical Cyclone Pam, and to restore and strengthen the existing health system***

### Strategic Objectives

To achieve this goal, three strategic objectives are outlined below:

1. To meet the remaining life-saving needs and basic health needs of people affected by Tropical Cyclone Pam through efficient coordination of international and national assistance.
2. To work with the existing health system to re-establish and strengthen health services across all affected areas.
3. To assist MoH to put in place mechanisms for preparation for future disasters using lessons learnt from response to Tropical Cyclone Pam.

**Activities** - Under each objective, a number of activities are identified.

***Strategic Objective 1:*** ***To meet the remaining life-saving needs and basic health needs of people affected by Tropical Cyclone Pam through efficient coordination of international and national assistance.***

### Two key action areas are outlined below

### 1.1 Repair of health facilities and restoration of normal functions

To provide continuing support for life-saving and essential health care to affected populations, quick measures will be taken to repair and/or rebuild damaged health facilities. In some situations, temporary health facilities will be erected to enable provision of essential health services, with particular attention on restoring WASH infrastructure. Based on the health facility assessment, a list will be drawn up to determine priority health facilities for return to normal functions and structural repair.

***Activities include:***

a) Completion of health facility assessments and prioritisation
b) Quick fix of damaged health facilities and rebuilding/repair based on priority list, including restoration and or upgrading cold chain equipment functionality.
c) Erection of temporary health facilities using suitable available materials
d) Resource mobilisation for health facility repairs
e) Establishment of temporary facilities for restoration of essential primary health care services including maternal and child health and reproductive services
f) Development of a Water Safety Plan to ensure safe water and sanitation services

***Outputs:***

- Restoration of health facility functions to provide life-saving medical care and continuity of essential health services.
- Populations of affected communities have access to essential health services

## 1.2 Provision of continuing life-saving care and re-establishment of routine essential health services

To provide continuing life-saving care and essential health services to affected populations, a number of interventions will be implemented. MoH will gradually restore routine health services and programs across all tiers of health system – hospitals, health centres and dispensaries and conduct outreach services where feasible.

***Activities include:***

a) Human resource (HR) supplementation through expansion of FMTs for an additional three months to allow time for the MoH to plan longer term arrangements.
b) Establishment of a HR working group within the MoH to oversee HR recruitment, development and distribution in line with national needs.
c) Delivery of integrated health services through health facilities and community outreach, with health promotion as a cross cutting element across all services. These services include*:*
    i. *Continuing medical care: ensure primary care facilities deliver manage common casualties and emerging illnesses and effective referrals where appropriate*
    ii. *Child health: strengthen immunisation and integrated management of childhood illnesses (IMCI), with particular focus on diarrhoea and respiratory infections and skin diseases.*
    iii. *Reproductive health, maternal-neonatal and child health (RMNCH): deliver continuum of care for pregnancy, intra-partum, newborn, and postnatal period.*
    iv. *Nutrition: promotion of infant and young child feeding, early detection and management of severe acute malnutrition, and provision of micronutrient supplementation.*
    v. *Communicable disease: strengthen disease surveillance to ensure monitoring of re-emerging diseases and effective response to disease outbreaks, case investigation and proper management.*
    vi. *STI and HIV/AIDS: strengthen community awareness, early diagnosis, treatment, control and surveillance, especially focusing on target groups, e.g young people.*
    vii. *Sexual health and prevention of sexual violence: expand community-based awareness and early interventions for any forms of domestic violence and rape.*
    viii. *Non-communicable disease (NCD): strengthen prevention by addressing major NCD risk factors, improvement of patient management care and follow up.*
    ix. *Mental health and psychosocial support: establish community-based networks for psychosocial support with linkages to trained primary care providers, with functional referral mechanisms to secondary and tertiary care.*
    x. *Environmental health and hygiene: strengthen basic hygiene practices, sanitation and waste disposal as primary measures for disease prevention.*
d) In-service training and capacity building: In order to deliver the services listed above, appropriate training will be conducted for service providers.
e) Provision of medical supplies: including medicines and health care kits distributed to areas of need, and to monitor distribution and utilisation.

Where appropriate, these interventions should take into consideration, reaching out to marginalised groups, disability, vulnerable and disadvantaged populations.

In addition, continued support will be given to MoH to coordinate the Health Cluster response and ensure that health interventions are well planned and that distribution of international assistance, including foreign medical teams, are well planned and delivered.

***Outputs:***

- Extended FMT support for provision of medical care
- HR working group established to manage HR issues
- Staff trained to deliver improved health services
- Medicines and supplies distributed to areas in need
- Essential health services made available and accessible
- An MOH-led Health Cluster that is able to plan, manage and monitor the humanitarian response action.

***Strategic Objective 2:*** ***To work within the existing health system to re-establish and strengthen health services across all affected areas.***

**Two key action areas are outlined below**

### 2.1 Restoration and strengthening of services at the two most affected hospitals:

- Vila Central Hospital (VCH), main referral hospital (Efate)
- Lenakel provincial hospital (Tanna).

To support hospital recovery and ensure that basic operations of these two hospitals are functional, assistance is needed for structural rebuilding and reequipping. For Lenakel Hospital, essential equipment is needed to provide quality services such as oxygen plant and X-Ray machines, and ensuring that staffing and essential medicines and supplies are adequate.

***Activities include:***

a) Recruitment of short-term local staff to address critical staff shortage during recovery period and speedy progress on HR plans to fill vacancies as planned *(in line with Activity 2 under 1.2)*
b) Restoration of key hospital functions at VCH as the referral hospital.
c) Restoration of key hospital functions at Lenakel hospital as the provincial hospital.
d) Strengthen hospital management committees in both VCH and Lenakel hospital to oversee the management of key hospital functions.
e) Conduct regular hospital management meetings to ensure management procedures are in place to support hospital policies and functions at both VCH and Lenakel hospitals.
f) Support Central Medical Store (CMS) to better manage and monitor medicines and supplies by reviewing the supply chain and distribution system to avoid stock-outs, overstocking, unnecessary push-out of supplies and wastage.

***Outputs:***

- Temporary staffing employed from local sources to supplement staff shortage
- Improved service delivery at both VCH and Lenakel hospitals
- Improved hospital management at both VCH and Lenakel hospitals.
- Improved CMS functions in supply management and distribution including donations and aid supplies

## 2.2 Strengthened provincial health systems to deliver improved primary health care services and public health interventions

The recovery phase is a critical opportunity to build quality services to enhance rural health services using a primary health care approach. The main thrust of the post-cyclone recovery phase is to strengthen the capacity of the provincial health system to effectively manage the delivery of essential health services in provincial hospitals, health centres dispensaries and community based aid posts. While service delivery has been a long-standing challenge, the restoration plan will optimise interventions in the most affected provinces of Shefa, Tafea and parts of Malampa and Penama.

In line with current MOH plans, rebuilding and strengthening provincial health is fundamental. Led by the provincial health manager and made up of senior provincial health staff, the team will take leadership in driving the post-cyclone restoration and improvement plans in respective provinces. The provincial health team will work in collaboration with development partners, NGOs, community-based organisations and non-health sectors to implement the recovery plan in respective provinces.

***Activities include:***

a) Provincial health team: Train and capacity build the provincial health team to better manage provincial health services with improved planning, support supervision, and monitoring service delivery in rural health facilities across three levels of health care (dispensary, health centres and hospitals) and promote effective linkages between these levels.
b) Community-based collaboration: facilitate effective linkages between health centres, dispensaries, aid posts and NGOs to optimise their contribution to primary health services.
c) Integrated public health program: establish a strong public health team to deliver community based programs, outreach activities, on-spot training and supervisory visits to remote rural health facilities.
d) In-service training in primary health care: conduct appropriate training to strengthen quality of care services at all levels of provincial health structure.
e) Role delineation: establish appropriate role delineation for each level of health facility as basis for longer-term development of HR skills set, clinic equipment and standardised essential drugs and supplies for each health facility at each level of health care.

***Outputs:***

- Provincial health teams established to manage improved provincial health systems
- Better linkages and coordination between health facilities at all levels - provincial hospitals, health centres, dispensaries, aid post and NGO providers
- Primary health facilitates are able to provide essential health care services by more skilled service providers

- Stronger collaboration with development partners, NGOs, community-based organisations and non-health sectors
- To assist MoH to put in place mechanisms for preparation for future disasters using lessons learnt from response to TC Pam.

***Strategic Objective 3: To assist MoH to put in place mechanisms for preparation for future disasters using lessons learnt from response to Tropical Cyclone Pam.***

The response to TC Pam has left behind some critical lessons learned which should be translated into actions as a basis for building a practical and easy to follow national disaster plan. This will help to support the MoH in its role of leading a coordinated response to future public health threats.

***Activities include:***

This plan establishes the ground work for the following key actions:

a) Reviewing and updating the national disaster management plan for MoH. The document sets the agenda and steps for emergency humanitarian response in times of a disaster.
b) Capacity building and training on humanitarian response for all Health Cluster agencies using the national management plan. All Health Cluster agencies can be better able to understand key concepts and principles of response actions, stages of response plans and management of risks.
c) Review Health Cluster functions, coordinating mechanisms, agency roles, terms of reference and membership.

***Outputs:***

- The draft national disaster management plan for MoH is revised and endorsed
- MoH and Health Cluster undergo training in humanitarian response based on this plan
- A rapid response team in MoH is established to plan and coordinate disaster events.

## Monitoring and Evaluation

The timeframe for this post-cyclone recovery plan is eight months from May to December 2015. Activities will be evaluated using the list of output indicators below. A terminal report will be produced at the end of the project timeframe.

The baseline and targets for these indicators will be determined after consultation with the MoH in regards to the development of the implementation plan.

| **Strategic Objective 1: To meet the remaining life-saving needs and basic health needs of people affected by Tropical Cyclone Pam through efficient coordination of international and national assistance.** | | |
|---|---|---|
| ***Activity 1.1 Repair of health facilities and restoration of functions*** | ***Output Indicators*** | ***Means of verification*** |
| a) Completion of health facility assessments and prioritisation<br>b) Quick fix of damaged health facilities and rebuilding/repair based on priority list, including restoration and or upgrading cold chain equipment functionality.<br>c) Erection of temporary health facilities using suitable available materials<br>d) Resource mobilisation for health facility repairs<br>e) Establishment of temporary facilities for restoration of essential primary health care services including maternal and child health and reproductive services<br>f) Development of a Water Safety plan to ensure safe water and sanitation services | • Number of health facilities repaired<br>• Number of temporary facilities established<br>• Number of fully functioning health facilities per population per province<br>• Water Safety plan developed and awareness workshop conducted | • Report of health facility assessments and priority list of areas of need<br>• Reports of temporary and long term repair work conducted<br>• Water Safety plan in place and awareness training provided |
| ***Activity 1.2* Provision of continuing life-saving care and re-establishment of routine essential health services** | ***Output Indicators*** | ***Means of verification*** |
| a) Human resource (HR) supplementation through expansion of FMTs for an additional three months to allow time for the MoH to plan longer term arrangements.<br>b) Establishment of a HR working group within the MoH to oversee HR recruitment, development and distribution in line with national needs.<br>c) Delivery of integrated health services through health facilities and community outreach, with health promotion as a cross cutting element across all services.<br>d) In-service training and capacity building: In order to deliver the services listed above, appropriate training will be conducted for service providers.<br>e) Provision of medical supplies: including medicines and health care kits to areas of need, and monitor distribution and utilisation. | • Number of short-term and temporary staffing under FMTs deployed (determined by need)<br>• Number of HR working group meetings<br>• Number of medical doctors, midwives and nurses/10,000 by province<br>• Number of Health facilities with improved life saving equipment<br>• Number of in-service trainings<br>• Number of staff trained<br>• Number of urgent medical supply requests received by CMS and/or the number of stock-out of key medicines<br>• Number of health facilities delivering package of integrated health services<br>• Number of outpatient consultations/person/year | • Reports of FMTs and deployed temporary staff<br>• Minutes of HR working group meetings<br>• Reports of in-service training<br>• Reports of medicines, medical supplies and medical equipment distributed<br>• Health facility reports on the types of services delivered<br>• Health facility monitoring reports |

| **Strategic Objective 2: To work within the existing health system structures, to re-establish and strengthen health services at all levels.** | | |
|---|---|---|
| ***Activity 2.1:*** **Restoration & strengthening of services at the two most affected hospitals - main referral hospital, Vila Central Hospital (Efate) and Lenakel provincial hospital (Tanna).** | ***Output Indicators*** | ***Means of verification*** |
| a) Recruitment of short-term local staff to address critical staff shortage during recovery period and speedy progress on HR plans to fill vacancies as planned *(in line with Activity 2 under 1.2)*<br>b) Restoration of key hospital functions at VCH as the referral hospital.<br>c) Restoration of key hospital functions at Lenakel hospital as the provincial hospital.<br>d) Strengthen hospital management committees in both VCH and Lenakel hospital to oversee the management of key hospital functions.<br>e) Conduct regular hospital management meetings to ensure management procedures are in place to support hospital policies and functions at both VCH and Lenakel hospitals.<br>f) Support Central Medical Store (CMS) to better manage and monitor medicines and supplies by reviewing the supply chain and distribution system to avoid stock-outs, overstocking, unnecessary push-out of supplies and wastage. | • Supplementary-temporary staffing from Foreign Medical Teams and local sources employed<br>• Number of in-service trainings<br>• Number of staff trained<br>• Number of urgent medical supply requests received by CMS and/or the number of stock-out of key medicines<br>• Number of on time deliveries of medicines and medical supplies including donations and aid supplies<br>• Number of VCH and Lenakel hospital management meetings held | • List of FMT staffing recruited for short term assignment by health facility<br>• Annual hospital reports<br>• Staff training reports<br>• Minutes of hospital management meetings<br>• Medicines and medical supplies distribution data<br>• Minutes of Hospital management meetings and list of decisions made and carried out. |
| ***2.2 Strengthening of provincial health systems to deliver improved primary health care services and public health interventions.*** | ***Output Indicators*** | ***Means of verification*** |
| a) Provincial health team: Train and capacity build the provincial health team to better manage provincial health services with improved planning, support supervision, and monitoring service delivery in rural health facilities across three levels of health care (dispensary, health centres and hospitals) and promote effective linkages between these levels.<br>b) Community-based collaboration: facilitate effective linkages between health centres, dispensaries, aid posts and NGOs to optimise their contribution to primary health services.<br>c) Integrated public health program: establish a strong public health team to deliver community based programs, outreach activities, on-spot training and supervisory visits to remote rural health facilities.<br>d) In-service training in primary health care: conduct appropriate training to strengthen quality of care services at all levels of provincial health structure.<br>e) Role delineation: establish appropriate role delineation for each level of health facility as basis for longer-term development of HR skills set, clinic equipment and standardised essential drugs and supplies for each health facility at each level of health care. | • Number of Health centres and dispensaries covered by quarterly supervision<br>• Number of deliveries attended by skilled birth attendant in rural areas<br>• Number of women receiving post natal care coverage<br>• Number of health staff receiving training post cyclone<br>• Standardised list of equipment and supplies for each level of health care developed<br>• Number of meetings with the formal health system<br>• Number of health facilities providing timely (2 weeks after end of the month) HIS reporting | • Annual Provincial health reports<br>• HIS monthly reports<br>• Training and meeting reports<br>• Supervisory visit reports<br>• Public health reports by provinces<br>• Standardised list of equipment and medicines in place<br>• HIS reporting increased<br>• Village health worker review report<br>• Provincial health reports |

| **Strategic Objective 3: To assist MoH to put in place mechanisms for preparation for future disasters using lessons learnt from response to Tropical Cyclone Pam.** | | |
|---|---|---|
| ***Activities*** | ***Output Indicators*** | ***Means of verification*** |
| a) Reviewing and updating the national disaster management plan for MoH. The document sets the agenda and steps for emergency humanitarian response in times of a disaster.<br>b) Capacity building and training on humanitarian response for all Health Cluster agencies using the national management plan. All Health Cluster agencies can be better able to understand key concepts and principles of response actions, stages of response plans and management of risks.<br>c) Review Health Cluster functions, coordinating mechanisms, agency roles, terms of reference and membership. | • An updated national disaster management plan for MoH<br>• MoH staff to undergo training in humanitarian response<br>• Health Cluster functions reviewed and put into place | • Disaster management plan in place and used to train staff.<br>• Training report available<br>• List of staff trained<br>• Health Cluster revised TOR and membership in place. |