



AUSTRALIAN AID INTERNATIONAL



Australian Aid International (AAI)

Public Healthcare Assistance for Affected Persons of the Pakistan Floods

Sindh Province– Thatta District

FLOOD RESPONSE REPORT

December 2010



Australian Aid International Ltd.

International Headquarters

PO Box 6086, St Kilda Road
Melbourne Victoria, Australia 3004
T: + 61 3 8625 0005
E: info@aai.org.au
www.aai.org.au

Pakistan Office

SNPA-7A, Block-3 DMCHS
Karachi 74800 Pakistan
T: +92 (0) 325 758 882
F: +92 (0) 21 3453 0343

1.0 Background:

Over the course of the 2010 monsoon season, Pakistan experienced the worst floods in its history. Heavy rainfall, flash floods and riverine floods combined to create a moving body of water equal in dimension to the land mass of the United Kingdom.

The floods in the Thatta District have caused large movements of population in the area and hundreds of thousands of people moved from their villages to seek refuge in the higher area of the district while waiting a number of months before returning to villages that were largely damaged.

AAI situated its WASH program in the Thatta district, concentrating on returnees in the Surjwal Taulka area. AAI focused on this area due to the following reasons:

- The urgency of the situation and the potential for widespread communicable disease outbreak.
- The lack of access to safe drinking water for the affected population.
- The lack of access to clean water for washing.
- The lack of access to latrines.
- The lack of understanding regarding causation of hygiene related illnesses.
- The vulnerable groups identified and the number of pregnant women and women about to give birth as well as the threat of communicable diseases.

The extent of the damage, along with the existing poor state of water and sanitation in the region, has contributed to the significant long-term impact on the health and hygiene of the population.

In the early recovery phase of the humanitarian response, AAI considered contributions to longer-term sustainable solutions. The rehabilitation of water supply systems, latrine structures and health and hygiene interventions met the requirements of the humanitarian response and sustainability of initiatives.

2.0 Project Goal:

Water and Sanitation

AAI's response has addressed the immediate water and sanitation issues of flood-affected returnees in the target areas of Surjawal. According to the World Health Organisation (WHO), the returning population is at high risk of outbreaks from water and sanitation related illnesses; due to reduced access to safe water and sanitation systems.

Diarrhea is already a major contributor to the high rate of under-five mortality in Pakistan, which according to UNICEF, is 97 deaths per 1,000 children (UNICEF, 2009). The majority of diarrhea cases are caused by unsafe drinking water or lack of water and inadequate sanitation. The displacement of the population and returning to poor living conditions has increased the risk of transmission of communicable diseases. Measles, diphtheria, pertussis, skin disease and Acute Respiratory Infections (ARI), are all increased in the returnee populations, due to lack of water and sanitation and the ability of disease to spread from person to person.

AAI specifically targeted vulnerable populations including children, women, those who are disabled and the elderly.

Health and Hygiene Behaviour

Due to the lack of safe drinking water for returnees, including the lack of basic WASH knowledge, there remains a very high risk of a secondary emergency. Outbreaks of infectious diarrhoeal diseases could occur at any moment.

Public health risks are currently exacerbated by inadequate sanitation, compromised safe water supply, potential food shortages, malnutrition and low levels of immunity within the most vulnerable groups. Reports from epidemic-prone disease surveillance of affected areas shows an increasing number of cases of water-borne diseases contracted through direct contact with polluted waters, vectors and increased numbers of ARIs.

AAIs Disease Early Warning System (DEWS) sampled approximately 3,000 of the flood affected Internally Displaced Persons (IDPs) and surveillance data revealed that returnees were experiencing the following: 30% had skin infections, 20% had acute respiratory tract infections, 10% had acute watery diarrhea, and 3% had suspected malaria cases – these figure were increasing where there was no other humanitarian interventions provided.

The disaster has caused a continual disruption in routine health education for healthcare staff and there remains a need to build capacity of skills and knowledge to deal with the affected population. Skilled workers need to be deployed to serve the increased patient load and to educate the community and affected groups on the need for clean water, and improved hygiene and sanitation practices.

Therefore, AAI has used hygiene promotion activities to involve the community and immediately address identified concerns.

3.0 Project Objectives:

- (a) Selected returnees of the 7,127 affected families have access to improved or safe drinking water through repair of water points, installation of water storage tanks, shallow water hand pumps and provision of chlorine, buckets and jerry cans; and
- (b) Selected returnees of the 47,340 affected individuals are provided with access to sanitation facilities (latrines and hand washing points where appropriate); and
- (c) Selected returnees of the 7,127 affected families are reached with appropriate messages on improved and safe drinking water and appropriate hygiene practices, such as hand washing through Information, Communication and Education (IEC) and interactive group sessions. Family hygiene kits were distributed to the most in need families.

4.0 Project Area of Operation and Map of flood Affected Areas:



5.0 Project Implementation Calendar

Sr.	Project Months/Phases Activities	Weeks	Phase 1 1 st Month				Phase 2 2 nd Month				Phase 3 3 rd Month			
			1	2	3	4	5	6	7	8	9	10	11	12
1	Hiring and orientation of project staff		X	X	X	X								
2	Assessment, water supply through upgrading or providing community water points, water storage tanks and water pumps.			X	X	X	X	X	X	X	X	X	X	
5	Assessment, provision of temporary latrines and defecation fields.				X	X	X	X	X	X	X	X		
6	Assessment, conduct health and hygiene promotion sessions in communities					X	X	X	X	X	X			
7	Assessment, distribute hygiene kits ie soap, Jerry can, Buckets, and Chlorine tables etc.				X	X	X	X	X	X	X			
8	Monitoring of project activities		X	X	X	X	X	X	X	X	X	X		
9	Progresses review meetings with stake holders				X				X			X		
10	Project completion reports											X	X	

Project Implementation Legend

Green – activity by week completed within timeframe

Red – activity by week not completed within timeframe

Yellow – additional time required for activity

Diagonal shading – activity completed prior to allocated timeframe

Note: Ongoing detailed assessments comprised a major component of phases one and two.



6.0 Project Activities:

The DTT Hygiene Program commenced on 1 November (Please refer to AAIs Interim Report No. 1, November 2010 - Phase 1). In summary, activities for Phase 1 – November include:

- Hiring and training of project staff was conducted for both hygiene and health promotion and water and sanitation. This included assessment and selection of an appropriate local partner organisation to train and develop including the preparation of sub-contracts, detailed terms of reference and scope of work documents.
- Detailed water and sanitation assessment of the Jar UC and preparation of the assessment report.
- Detailed assessment of hygiene practices and knowledge of the target population.
- Development of a hygiene promotion plan.
- Training of local partner in the deliver of hygiene promotion.
- Sourcing suppliers and obtaining tenders for hygiene kits and selecting a supplier.
 - 620 Female and 510 Child Hygiene kits were ordered.
- Community training of beneficiaries in hygiene promotion and distribution of hygiene kits.
- Community health promotion in association with curative and preventative health services to 1,455 patients.
- The previous government census of population living in Jar, which AAI was originally obtaining demographic data from, indicated that 17,427 people lived in Jar. However, the AAI survey found a Population of 42,709 in 127 villages with a total of 4,661 households. The difference was 25,282 more men, women and children living in Jar.



6.1. Improved Access to Safe Drinking Water

Both phase one and two required significant assessments of improved water supply locations and detailed work plans. These phases also included community liaison and working in close collaboration with the UN OCHA WASH cluster allocating areas for NGOs to provide activities.

An assessment of Keenjhar was been conducted and preparation of a detailed report completed. The Keenjhar population of 24,566 in 66 Villages and 3,588 households has now been documented. The previous Government census indicated a population of 29,913 in Keenjhar. There are now 5,347 fewer people living in Keenjhar. This may be due to displacement caused by the flooding.

The difference in the total planned population of Jar and Keenjhar (originally 47,340 and the actual population is now 67,757 with 10,266 households) is an additional 19,935 more men, women and children. This has only increased the need to provide assistance.

AAI trained four drilling teams and two mason teams including contractors sourced and the preparation of tenders.

Twenty successful water bores have been drilled with the installation of hand pumps, piping and five significant concrete drainage aprons built.

Sources of suppliers and preparation of tenders for major purchasing of hand pumps, electric pumps, piping, water tanks and cement has occurred.



Based on detailed assessments and the pilot water point construction, AAI has now planned to build/refurbish or improve approximately 150 Water points in 150 villages (98 in Jar and 42 in Keenjhar) for the target population in the third phase of the program.

The initial pilot Water Point Construction projects of 20 bores has been very successful. Individual villages have requested AAI's assistance in writing and have given permission to drill for potable/sweet/drinking water. As part of the provision of water activities, AAI has required beneficiaries to contribute labour and to assist in the monitoring of the

masons and contractors and accounting for equipment (hand pumps, cement, pipes etc) used in the project. Please refer to Attachment for Standard Water Point and Apron Design information.

The erection of 20 hand pumps including bore holes has allowed AAI to source suppliers promptly at competitive prices. It has also allowed AAI to train the four drilling teams and two mason teams. Two different design of hand pumps have been trialled by AAI. Based on these trails only the 'Abayar No 6' hand pump has been found reliable and suitable for use by AAI. The 'Sindhi Pipe Pump' has been found to be unsuitable. AAI continually conducts monitoring inspections to ensure activities are in line with program objectives.

Each individual water activity project has an individual report information sheet produced. These reports consist of;

1. The village number and name.
2. Statistical information.
3. GPS coordinates.
4. Photographic documentation of the before and after activities at the water points.

Beneficiaries have taken part in the progressive review of work ongoing/completed and any shortfalls have been addressed by AAI.



Water Point Activity Table

Activity Description	Quantity to Date	Capacity of Unit	Union Council	Total Number of Target Beneficiaries	Male	Female	Children (0-2 years)	Children < 5	Children 5-15 years
Handpumps Installed	1	0.5 litres per stroke	Keenjar	75					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	145					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	640					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	65					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	170					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	235					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	380					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	100					
Handpumps Installed	1	0.9 litres per stroke	Keenjar	150	70	70	5	5	
Handpumps Installed	1	0.9 litres per stroke	Keenjar	25	9	4	4	2	14
Handpumps Installed	1	0.9 litres per stroke	Keenjar	45	8	12	17	2	0
Handpumps Installed	1	0.9 litres per stroke	Keenjar	850	200	200	70	100	80
Handpumps Installed	1	0.9 litres per stroke	Keenjar	60	15	20	9	5	10
Handpumps Installed	1	0.9 litres per stroke	Keenjar	900	300	350	200	25	25
Handpumps Installed	1	0.9 litres per stroke	Keenjar	1000	600	300	5	20	15
Handpumps Installed	1	0.9 litres per stroke	Keenjar	25	12	6	0	4	5
Handpumps Installed	1	0.9 litres per stroke	Keenjar	150	38	60	12	22	30
Handpumps Installed	1	0.9 litres per stroke	Keenjar	40	13	16	11	6	5

6.2 Provision of Temporary Latrines and Defecation Fields

Although the provision of latrines were originally high on the agenda for the WASH cluster it has proved difficult to provide temporary latrines for returnees in their village locations. AAI's assessments have concluded in a majority of the villages the provision of latrines was not of concern to local communities. Many communities were satisfied with their current – rudimentary – systems of defecations. Lack of adequate sanitation is of major concern to the WASH community however, it has been well reported that returnees were either not using latrines provided by other NGOs or they were destroying donated latrines to re-use the materials for other building purposes or for fire wood.

The shallow water table in many places only being 3 ft deep has means that simple pit latrines cannot be built due to risk of contamination of the drinking/sweet/potable water supply with faecal matter. The WHO also recommends not to use temporary pit latrines.

With extremely uneducated communities, such as in Thatta, the provision of latrines may only be successful in a long term development project – which is not in the scope of this early recovery phase effort. AAI continues to assess where latrines may be provided. However, resources and percentage of direct project activities for latrines will be shifted to the provision of safe water activities if latrines are not supplied by AAI.

6.3 Hygiene and Health Promotion

6.3.1 Hygiene Promotion

Hygiene and health promotion activities consisted of approximately 20% of direct project activities and this equated to funds being available for 1000 kits (approximately 20% of direct project activity funds).

Hygiene kits were purchased and distributed to selected villages in the target location. AAI's assessments indicated that two types of hygiene kits would be provided for distribution as part of the hygiene promotion component - one for adult females and one for children.

The target groups for the female hygiene kits were pregnant and lactating women and women with more than four children. The target group for children's kit distribution was children over the age of 5 years.

A list of villages and target beneficiaries meeting the criteria in both union councils was established and a plan was formulated for the distribution of the hygiene kits.

Local partner NGOs were contracted and local staff hired and trained on hygiene promotion and how to educate the beneficiaries on good hygiene practices. Hygiene practices included hand washing, prevention of skin infections, use of safe drinking water and how to use of the contents of the hygiene kit appropriately.



Education at hygiene kit distribution

Registration for distribution of kits

Contents Of Hygiene Kits

Female Hygiene Kit

Items	Description	No.
Towel	Size 48 x 26 inches/weight 0.40kg approx & soft towel for home use	1
Washing soap	Sufi or Equivalent Soap (1kg pack contains four pieces of soap)	1
Bath Soap	Safe Guard/ Dettol – 115 Grams	2
Combs	1 LICE COMB and hair large comb	2
Nail clipper	Medium size	1
Tooth Brush	Branded Tooth Brush – Medium	5
Tooth Paste(M)	Branded Tooth Paste - 75 grams	2
Plastic Lota	Made of pure plastic	1
Sanitary cloth for women	Cotton Cloth - 1m ²	1
Plastic Bucket	Plastic bucket with lid and handle - 12 Litters	1
Hair Removal Cream	Veet' Shaving Cream	1

Child Hygiene Kit

Items	Description	No.
Towel	Size Small	1
Bath Soap	Safe Guard/ Dettol Small	1
Combs	1 LICE COMB and Small Comb	2
Tooth Brush	Branded Tooth Brush. Medium	1
Tooth Paste(M)	Branded Tooth Paste, Small	1



Hygiene kits for children



Several kits were given out at AAI mobile clinic And child educated

Hygiene Promotion Project Plan

After discussion with local village leaders, tokens were provided to eligible beneficiaries the day prior to the distribution of the kits. The village elders recommended how the kits were to be distributed and assisted in coordinating the distribution of the hygiene kits.

Once the women and children were individually registered and sitting down the hygiene promotion team would provide hygiene education to the beneficiaries. When the training sessions were completed the kits were distributed to selected beneficiaries.

All packaging from the items in the kit was removed prior to the distribution as it was felt that this would prevent items being sold.

Outcome

A total of 11 villages received hygiene kits; 620 adult and 510 children's hygiene kits were distributed.



Education at hygiene kit distribution

6.3.2 Healthcare and Health Promotion

AAI conducted outreach and mobile healthcare clinics in collaboration with local partners utilising combined logistical, transport and personnel resources to conduct the healthcare clinics. The major focus of the outreach and mobile medical clinics was on preventative health services and health promotion.

The healthcare team consisted of an Australian health coordinator, an Australian and Pakistani/US doctor and an Australian nurse/paramedic and 3 local Pakistani nurses. This allowed for a high number of patients to be treated, and where appropriate, referred to higher levels of health care.

During December a total of 1,472 patients were treated at 21 AAI outreach and mobile medical clinics.

AAI identified severely ill community members who had limited access to regular government health care services and provided preventative and curative healthcare as well as initiating referral to local healthcare facilities, for continuation of long term treatment.

The most severe cases were initially treated and then referred, if appropriate. However, AAI placed greater emphasis on preventative healthcare especially for skin diseases, maternal and child healthcare activities and health promotional activities.

Capacity Building of Local Partners

AAI trained local healthcare partners in International Disaster Medical Management. The training of healthcare and community volunteers focused on improving clinical knowledge, health promotional and organisational skills. The key areas of capacity building include:

Clinical skills/knowledge:

Training and mentoring was conducted during patient consultations. Standard disease definitions were emphasized and reference was made to the Pakistan Health Department Standard Treatment Guidelines and Integrated Management of Childhood Illness (IMCI) Guidelines.

Local staff and healthcare partners conducted patient consultations under the supervision of the AAI healthcare team.

The AAI Health Coordinator conducted teaching and training with local nursing staff to increase knowledge in patient diagnosis and treatment as well as pharmacy education.

AAI worked closely with community health volunteers to increase their capacity at AAI clinics. Community health volunteers assisted with health promotion activities and patient education especially in the management of skin diseases.

Reference tools/resources:

Community health volunteers were trained in pharmacy management and medication usage. The AAI Health Coordinator also conducted pharmacy education to other local healthcare providers.

Epidemiological Surveillance:

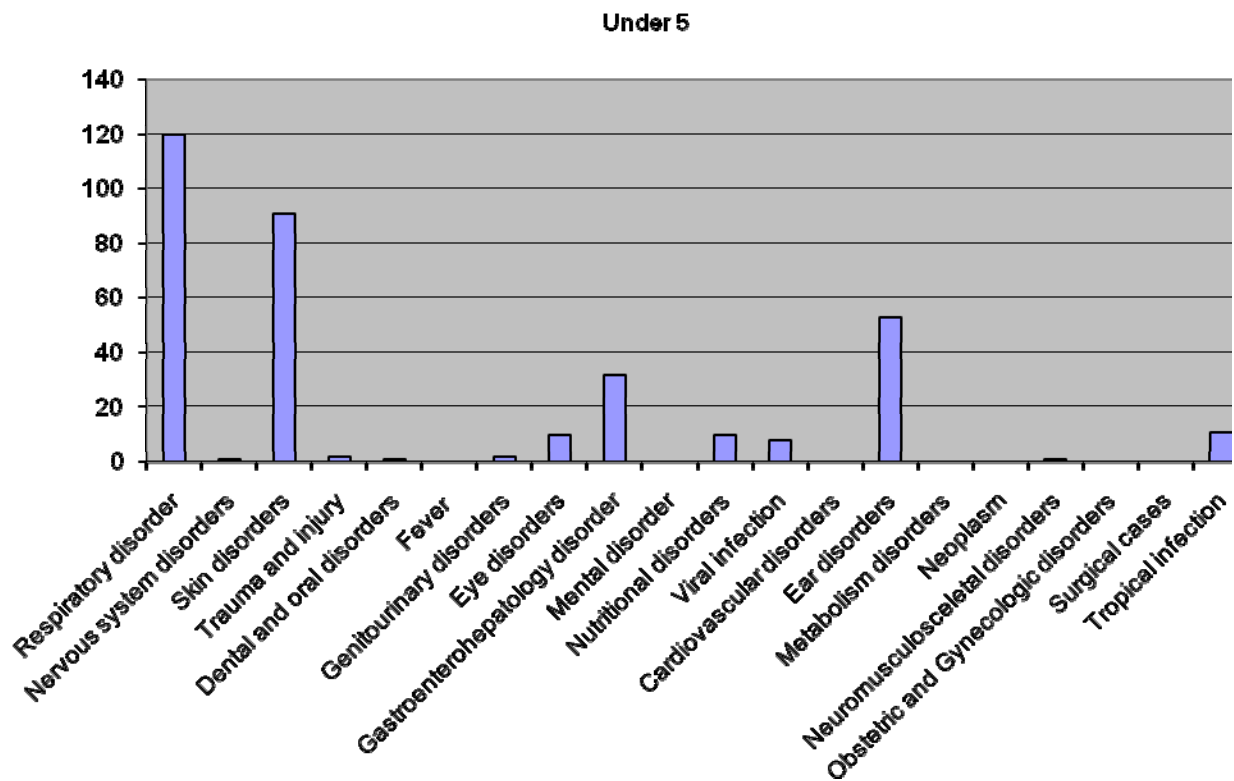
Local healthcare staff was trained in data collection and surveillance as it is a main objective of every AAI clinic. Local healthcare staff was also trained in data analysis and response and control of infectious disease outbreaks.



Community volunteers providing patient education at outreach and mobile medical clinics

Health Surveillance Data

Figure 1. Clinic Diagnosis, December 2010 Thatta, **Under 5 Years** N=342



A total of 342 presentations in the 0-5 age group were seen in the month of December. Respiratory tract infections accounted for 120 cases (35%), skin disorders accounted for 91 cases (27%) and ear infections accounted for 53 cases (15%) of presentations.

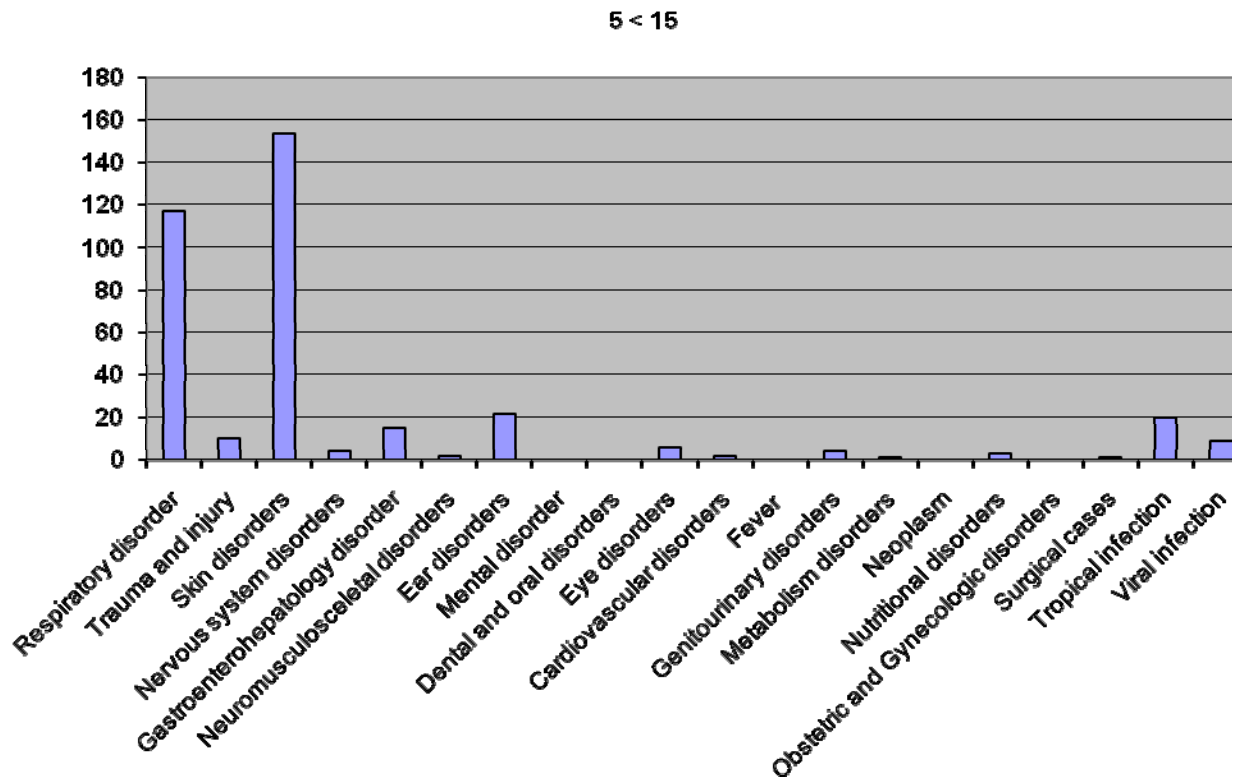


AAI doctor conducting patient consultations



AAI doctor treating an infant at a mobile medical clinic

Figure 2 Clinic diagnoses for December 2010 Thatta, 5 <15 year age group, N= 370

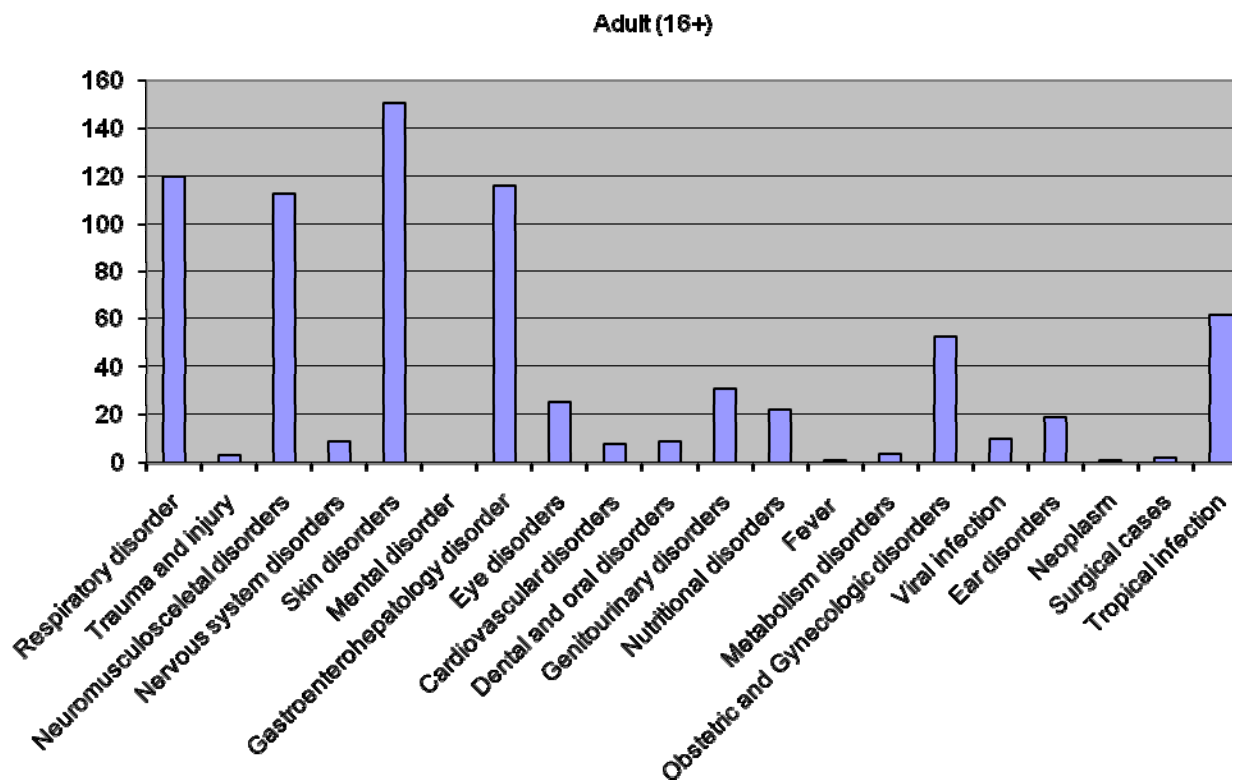


A total of 370 presentations in the age group 5-15 years were seen in the month of December. Skin Infections accounted for 154 (41%) of presentations, respiratory disorders accounted for 117 (32%) of presentations and ear infections accounted for 22 (6%) of presentations.



A child presented to a AAI mobile medical clinic with a severe skin disease

Figure 3 Clinic diagnoses for December, < Over 15 years age group, Thatta N= 760



A total of 760 presentations in the over 15 years and older age group were seen at AAI clinics in the month of December.

Skin disorders accounted for 151 (20%) of presentations, respiratory disorders accounted for 120 cases (16%) of presentations and gastroenterohepatology disorders accounted for 116 cases (15%) of presentation.



Various types of skin diseases treated at AAI mobile clinics

Pharmacy & Medical Supply

AAI kindly received additional medical supplies for the outreach and mobile medical clinics from various partners including Direct Relief International (DRI), Doctors Worldwide and Islamic Help. Furthermore, AAI received a donation of medicine from a visiting medical officer who was in Sindh Province surveying the damage to his home district. AAI was most grateful for those generous contributions of medical supplies that allowed AAI to conduct healthcare activities.

Adequate and good quality medicines allowed the most common conditions to be treated without referral to higher levels of healthcare; thus reducing the load on an already suffering healthcare system. Due to minimal knowledge of medical treatment in the local population, AAI spent a significant amount of time with each patient to ensure that medical regimes were understood and free medicines used in an appropriate manner.

At the completion of the health promotion phase (31 December 2010) of this program, AAI was able to donate the remaining vital medical supplies and equipment to the local hospital at Makli. This donation will assist with the treatment of emergency patients and those referred to the hospital for ongoing treatment.



AAI staff donating medical supplies to the Thatta District Hospital in Makli

Several members of the Janum Network donated blankets for AAI to distribute to the most in need members assessed at AAI clinics. The AAI health team distributed the blankets to a severely affected village that the AAI health team identified during a clinic several days before.



AAI staff distributing donated blankets to communities severely affected by the floods

8.0 Constraints:

Due to delays with the project commencement and the distribution of funding, procurement activities were withheld for more than one month. This resulted in a limited timeframe to complete the remaining activities. However, AAI can achieve the project goals with the cooperation of the villagers, the workforce and local partners.

Risks highlighted include inclement weather or if suppliers prove to be unreliable or supply inferior products have to be returned/refused could cause further delays in construction activities and therefore may affect the timeline being achieved.

9.0 Plan for Phase 3 – January 2011

AAI will increase access to safe drinking water in 150 villages in the union councils of Jar and Keenjhar UCs, through provision of 130 additional water points. This includes any remaining direct project activity funds from sanitation or hygiene activities being re-directed to safe water activities.

Jerry cans and chlorine tablets will be procured and distributed to the target population to increase access to safe drinking water.

A major portion of the training and development will be directed towards the local partners in assisting and then managing the operation of WASH activities, under the supervision of AAI. Intensive training will include management, logistics, procurement procedures and reporting.

Report prepared by:

Australian Aid International

Pakistan

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