

PAEDIATRICS IN DISASTER PROJECT

INTRODUCTION

The Kenya Paediatric Association (KPA) which was established in 1968 is an association which draws its membership from practicing paediatricians, and associate members comprising of researchers, emergency specialists, nurses, medical officers, clinical officers, psychologists, psychiatrists, community healthcare workers, healthcare workers-in-training, and other health professionals interested in working with children.

The vision of KPA is: “Providing an optimal healthcare environment for the child”; and its mission is: “To be the guide and leader in comprehensive child healthcare delivery through promotion of best practice in paediatrics training, research, policy formulation and capacity building of members.”

The association engages in the following activities:

- Fostering the interest of Kenyans through all measures considered necessary to combat childhood and adolescent diseases by enlisting their cooperation in implementing such measures and by acting as a centre of public enlightenment on the management, prevention, control and eradication of childhood diseases
- Disseminating knowledge concerning the causes, treatment and prevention of childhood and adolescent diseases
- Playing a significant role in counseling support in the fight against societal ills, including drug abuse, HIV/AIDS and rape/ sodomy in children and adolescent
- Encouraging research into causes, management and prevention of childhood and adolescent diseases in Kenya
- Collaborating on research, advocacy, education, training and sharing experiences for the implementation of best strategies

BACKGROUND

The Paediatrics in Disaster Project is a project currently being initiated in Kenya between the Kenya Paediatric Association in collaboration with the Ministry of Health & Education, County Governments, Kenya Red Cross Society and the Centre for Global Health, Colorado School of Public Health and the American Academy of Paediatrics (AAP). KPA is in discussions with its long-term partners like UNICEF, UNDP, NACADA, DFID, several private companies and faith based organizations.

This is an initial 5 year project that will involve all the Kenyan counties and will be scalable to East Africa over 10 years. This project is in line with the vision 2030 social (education/training & health sectors) and economic pillars and the strategic plans for the Ministry of Health.

The project idea originated from:

1. A request by the Ministry of Health’s Division of Emergency and Disaster Risk Management to KPA to participate in the refining of their Disaster Management strategic plan. This is especially due to the fact that a large number of casualties in disasters are children and adolescents.
2. The rising cases of adolescent drug abuse, indiscipline and arson attacks within and without the school environment. The subsequent morbidity, mortality and poor response to these cases by healthcare professionals is a major concern for KPA.
3. A proposed Paediatrics in disaster training course developed under the leadership of Professor Stephen Berman, the Director of the Center for Global Health and past president of the AAP in

collaboration with the American Academy of Paediatrics (AAP), the regional office of the World Health Organization – Pan American Health Organization (PAHO).

This training course in disasters is focused on the unique physical, psychological and psycho-social needs of children and increases the participants' awareness and competence in paediatric disaster planning and response.

The course responds to the increased disasters in Kenya involving children and teenagers in the home environment and in schools.

PROBLEM STATEMENT

UNICEF defines an emergency as 'a situation that threatens the lives and well-being of large numbers of a population and in which extraordinary action is required to ensure their survival, care and protection. Emergencies may include Natural calamity, armed conflict, terrorism, communal violence, torture and situations of political instability.

Kenya is prone to a range of natural disasters, notably drought, floods, landslides and mudslides, earthquakes, wildfires, various epidemics and most recently terror attacks. The international disaster database (EM-DAT) shows that during the period 1993-2010, a total of 73 natural disaster events including droughts, epidemics, floods, landslides and tsunami occurred in Kenya and affected a cumulative total of 48.46 million people (CRED, 2011). This translates to an annual average of 2.69 million people. During the same period, a total of 5,825 people (averaging 323 people annually) died from the impacts of the 73 natural disaster events. However, drought affected the highest number of people (about 39.2 million) compared to about 6.9 million affected by epidemics and 2.4 million affected by floods. On the average, drought episodes affected between 3-5 million people per event during the period compared to 237,300 by epidemics and 75,600 by flood events.

In terms of Health emergencies, HIV and AIDS are the most well documented disasters in Kenya. To date the pandemic has left a trail of over 1.2 million AIDS orphans, an enormous burden on the elderly persons in whose care the orphans are often left and a burden to the economy. Emergency situations lead to the disruption of health programs, destruction of health facilities and to the flight or death of health personnel, which hampers the provision of vital social services. After Kenya's post-election violence of 2007/2008, IDP populations were reported to live in conditions with inadequate housing, drinking water and sanitation, insecure or exploitative employment and high prevalence of common diseases (Women's Commission on Refugee Women and Children, 2008).

Drug abuse is one of the top problems confronting the nation today especially among youth. Incidences of drug and alcohol abuse and related anti-social behavior have tremendously increased in recent years. Alcohol, bhang and tobacco are increasingly being abused by school going children. Opium, cocaine and heroin can be added to this list. In Nairobi alone, 50% of students have in the past taken drugs. Half of these have become regular users. Drug abuse among students results into general indiscipline in institutions of learning.

Nearly every week there are stories of destructive fires in Kenyan secondary schools. Most of these are suspected arson cases and the usual suspects are the schools' current students. During the 2013 school year, Kenyan media reported at least 34 separate cases of fires as suspected arson in secondary school as well as several more thwarted attempted arson in schools. This is comparable to the 28 separate incidents of suspected arson in secondary schools reported in 2012 and the 14 cases reported in 2011. At least 20 schools in the Coast region have been burnt between June and August, 2015 and dozens of

students charged with offenses relating to arson in Kilifi and Taita Taveta counties. This worrying trend has made it clear that an intervention into youth behavior is necessary to avert this epidemic.

Children typically represent 50-60% of those affected by disaster. In the terrorist attack at Westgate, Nairobi in 2013, 30 children attending a cooking event were targeted by the gunmen. Children are directly affected by death and injuries as well as from diseases related to malnutrition, poor water and sanitation – conditions that are exacerbated by disasters. In addition, disasters disrupt education and can cause psychological trauma. Disasters also separate children from their families and increase vulnerability to trafficking, exploitation and abuse (UNICEF).

In the management of all emergency situations, a country's success lies in the existing capacities to prevent and mitigate crisis situations. Adequate management of Kenyan disasters requires collaboration between all the stakeholders so as to help Kenya attain its vision 2030 objectives. The Economic Pillar of Vision 2030 seeks to improve the prosperity of all regions of the country and all Kenyans by achieving a 10% Gross Domestic Product (GDP) growth rate by 2017. Within the Medium Term Plan 2013-2017, six priority sectors that make up the larger part of Kenya's GDP (57%) and provide for nearly half of the country's total formal employment were targeted. Failure to adequately address these disasters in a long-term & sustainable way will reverse all gains of the vision 2030.

Financial Impact of Paediatric Disasters

An 'orphan' is defined by the United Nations as a child who has 'lost one or both parents'. As adults continue to die through disasters, an increasing number of children will grow up without parental care.

The two major economic effects are a reduction in the labour supply and also increased costs associated with the recovery from the disaster. One study found that the impact of AIDS on households in Kenya is profound. Smallholder rural households lost between 58 -78 percent of household income following the AIDS death of an economically active adult in the household. The corresponding loss for an urban household ranges between 54-66 percent. A recent UNDP survey found that most parents do not arrange for other homes for their children before they die; instead more and more households are being headed by children, particularly in the rural areas.

In 1995, a survey found that a Kenyan company spends about US \$ 45 per employee per year for HIV/AIDS related costs, or 3 percent of company profits. It was projected that this cost would increase to US \$ 230 per employee per year, equivalent to 8 percent of company profits by the year 2000.

By killing off children and young adults, the disaster seriously weakens the taxable population, reducing the resources available for public expenditure such as education and health services, resulting in increasing pressure for the state's finances and slower growth of the economy. This results in a slower growth of the tax base, an effect that will be reinforced if there are growing expenditures on treating the sick and injured. This is especially true if the sharp increase in adult mortality shifts the responsibility and blame from the family to the government in caring for these orphans.

PROJECT OBJECTIVES

The goal is to train a critical mass of paediatricians, other physicians, health professionals and education professionals to take an active role in paediatric disaster planning, response and management for their hospitals, schools and communities.

The Paediatrics in disaster course has been adapted for use all over the world and has been expanded to Ghana, Tanzania and Kenya in 2015.

National training centers have been established in Tanzania, Doha, Qatar, Beijing, China, Ho Chi Min City, Vietnam, Mexico City, Mexico, Panama City, Lima, Peru and Quito, Ecuador, Nicaragua, Honduras, Guatemala, Indonesia, Cambodia, Haiti and the Philippines. The facilitator guide is now available in English, Spanish, French, Chinese, Cambodian and Vietnamese.

The long term goals of this project are:

1. To set up a national training center in Kenya and subsequently county training centres.
2. To integrate into the Ministry of Health and County and Community Health Worker training plans.
3. To integrate into the Universities, Nursing and Medicine curricula.
4. To modify the course content for integration into the Teacher Service Commission curriculum with an aim in building capacity to help prevent and manage the increasing disasters in schools (primary & secondary).
5. To create County, Community and school mentorship and support programs for those affected.

PROJECT DESCRIPTION

The Ministry of Health has tasked the Kenya Paediatric Association to lead paediatric health worker mobilization for the purpose of national capacity development for disaster management. KPA will also work with the Ministry of Education to lead education professionals in the same.

The project's main activities are:

1. Training of paediatric health workers, teachers and students.
2. Training of trainers courses in order to build the training team in all counties.
3. Establishing national, county, school and community disaster response & support centres.
4. Developing disaster mitigation and response plans at the county, school and community levels.
5. Developing county, school and community disaster champions who will ensure that disaster protocols are adhered to and data on disasters are collected on a regular basis and shared with the relevant government agencies for the purposes of policy formation and reevaluation of established strategies.
6. Monitoring and evaluation of the established disaster response & support centres.
7. Monitoring and evaluation of the developed disaster mitigation and response plans for the purposes of having regular disaster drills.

The project seeks to enhance Planning, Organization and Triage before, during and after a disaster. Participants will learn to work at the scene of a mass casualty incident, the basics for triage at the scene, secondary triage and hospital triage. They will also receive notions of what the families need to be taught to be prepared for possible disasters and subsequent support for the affected.

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The pilot course curriculum covers most situations like to be present in a disaster, including the care of newborns born in emergency deliveries, and the management of paediatric trauma. This core information will need to be adapted to different and geographical settings.

The pilot paediatric in disaster course details:

The course will be run over 4 days. Key concepts are covered in presentation to the entire group using standardized PowerPoint slides available with the program materials. These key concepts and skills are then reinforced during small group problem based learning exercises that include role playing, case discussions and clinical workshops. Participants then have the opportunity to demonstrate their understanding of these concepts and mastery of clinical skills during a simulation hospital disaster drill. The design of the course emphasizes active learning concepts, repetitive exposure, and demonstration of competency. A certificate of completion is issued to participants completing the course successfully.

The Modules covered in the course include the following:

1. Disasters and their effects upon the population: Key concepts
2. Preventive medicine in humanitarian emergencies
3. Planning and triage in the disaster scenario
4. Paediatric trauma
5. Management of prevalent infections in children following a disaster
6. Diarrhea and Dehydration
7. Delivery and immediate neonatal care
8. Nutrition and malnutrition
9. Management of HIV, Ebola, Dengue Fever
10. The emotional impact of disasters in children and their families
11. Drug abuse & Toxic exposures

The pilot course content will be modified and aspects of drug abuse, peer pressure, conflict resolution, career counselling and mentorship will be added before secondary and primary school training. The training will be targeted to the school teachers and students.

PROJECT ACTIVITY & TIME BREAKDOWN

Year 1 & 2

1. Conduct a survey of the problem in the counties.
 2. There will be **55 disaster trainings** involving healthcare professionals. There will be 5 trainings in each of the **11 proposed training centres** (as shown in the table below) throughout the country over two years.
 3. There will be **55 disaster trainings** involving education professionals. There will be 5 trainings in each of the **11 proposed training centres** (as shown in the table below) throughout the country over two years.
- Disaster management plans that are in line with the national plans will be developed in each of these trainings.

Year 3

1. Developing county, school and community disaster champions through **two training of trainer courses** in each of the **11 proposed training centres** (as shown in the table below) throughout the country over two years.
2. The disaster champions will be mentored to:
 - identifying gaps in disaster prevention, response and management
 - collecting related data that will assist in policy development
 - work with the national and county disaster centres to fill in the gaps
 - update the county personnel on the gaps filled
 - coordinate disaster drills in their respective counties at the hospital and community levels

3. Mid-term audit of the project and report to partners.

Year 4

1. Pilot of policy materials from the national government through the mentors
2. Testing of the response plans developed

Year 5

1. Integration of the training in the curricula in the primary, secondary and healthcare training institutions.
2. End of project audits and reports

Table: Counties of Kenya:

	County	Former Province	Proposed Disaster Training and coordination centre
1	Mombasa county	Coast	Mombasa (City)
2	Kwale county	Coast	
3	Kilifi county	Coast	
4	Tana River county	Coast	
5	Lamu county	Coast	
6	Taita -Taveta county	Coast	
7	Garissa county	North Eastern	Garissa
8	Wajir county	North Eastern	
9	Mandera county	North Eastern	

	County	Former Province	Proposed Disaster Training and coordination centre
10	Marsabit county	Eastern	Meru & Machakos
11	Isiolo county	Eastern	
12	Meru county	Eastern	
13	Tharaka-Nithi county	Eastern	
14	Embu county	Eastern	
15	Kitui county	Eastern	
16	Machakos county	Eastern	
17	Makueni county	Eastern	
18	Nyandarua county	Central	Kiambu
19	Nyeri county	Central	
20	Kirinyaga county	Central	
21	Murang'a county	Central	

	County	Former Province	Proposed Disaster Training and coordination centre
22	Kiambu county	Central	
23	Turkana county	Rift Valley	Eldoret & Nakuru
24	Westpokot county	Rift Valley	
25	Samburu county	Rift Valley	
26	Trans Nzoia county	Rift Valley	
27	Uasin Gishu county	Rift Valley	
28	Elgeyo-Marakwet county	Rift Valley	
29	Nandi county	Rift Valley	
30	Baringo county	Rift Valley	
31	Laikipia county	Rift Valley	
32	Nakuru county	Rift Valley	
33	Narok county	Rift Valley	

	County	Former Province	Proposed Disaster Training and coordination centre
34	Kajiado county	Rift Valley	
35	Kericho county	Rift Valley	
36	Bomet county	Rift Valley	
37	Kakamega county	Western	Kakamega
38	Vihiga county	Western	
39	Bungoma county	Western	
40	Busia county	Western	
41	Siaya county	Nyanza	Kisumu & Kisii
42	kisumu county	Nyanza	
43	Homabay county	Nyanza	
44	Migori county	Nyanza	
45	Kisii county	Nyanza	

	County	Former Province	Proposed Disaster Training and coordination centre
46	Nyamira county	Nyanza	
47	Nairobi city county	Nairobi	Nairobi (City)

BUDGET

The funding is required to set up a national training Centre fully equipped with the capacity to train, coordinate project activities and provide support throughout all the counties.

Subsequently county training centres will be established within three years to ensure sustainability of this project.

The pilot training for the core of child health workers will take place in late Sept 2015 and is targeting to train ten (10) Trainers of Trainers (ToTs) for the course as well as 30 health care workers from Nairobi, Kiambu and Machakos counties. This course will take place at Gertrude's Garden Children's hospital and will cost **USD 22,600** including the cost of international faculty.

Attached please find the detailed budget of the pilot training.

The first year project budget will be shared with you within a month.

CONTACTS

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