

## The growing challenge of chronic diseases in disasters

Are we ready?

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## Presenter Disclosures


Rebecca Horn, MD, MPH

- ChronAid
- No disclosures

## Questions

- Do you have one or more chronic diseases?
- Do you have a parent, sibling, family member or friend who lives with chronic diseases?
- Do you have enough medicine at home to cover you for a day? A week? A month?
- Would you be prepared if the health infrastructure where you obtain your medications, equipment, or care for your health problems was suddenly disrupted?


## A malaria vaccine?



## Problem Statement

- Older people and those with chronic diseases are an *under-recognized* vulnerable group.
- Illnesses such as HIV have joined the spectrum of chronic diseases.
- In 2005, chronic diseases were the main cause of death in 6 out of 7 WHO regions.
- Few specific initiatives are geared towards those with chronic diseases in disaster response.

## A devastating example - Hurricane Katrina



- The biggest health issue was the inability of the displaced population to manage their chronic diseases.
- 5 out of 6 most commonly reported conditions were chronic conditions.
- 71% of those who died in the hurricane were over the age of 65.

## Discussion Outline

- Important Background information:
  - Disasters & Disaster Response
  - Global Population Aging
  - US Population Demographics
  - The Elderly & Chronic Diseases
  - Brief Historical Review of Chronic Disease in Public Health
- Disaster Response
  - What do we do now? Globally? Domestically?
  - A novel initiative
  - Primary solutions
  - Conclusions

## Disasters & Disaster Response

- There has been an increase in prevalence of disasters, both man-made and natural.
- Disasters can affect individuals' health, health infrastructure, and/or both.
- In the last decade, an average of 260 million people worldwide were affected by natural disasters, alone, per year.
- "Given that roughly one in ten people is aged over 60, this means that around 26 million older people were likely to have been affected... each year...."

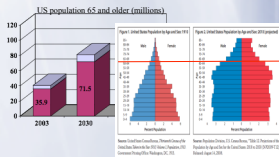
## Global Population Aging



- In 2000, 420 million people in the world were 65 and older; 7% of the world's population.

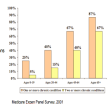
- According to the WHO, "...the total number of people aged 70 years or more worldwide is expected to increase... to 1 billion in 2050. High income countries will see their elderly population... increase from 93 million to 217 million over this period, while in low and middle income countries the increase will be 174 million to 813 million – more than 466%."

## US population demographics

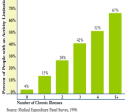


## The Elderly & Chronic Diseases

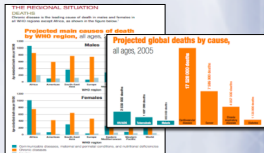
Age and Prevalence of Chronic Conditions



People with Multiple Chronic Illnesses Are More Likely to Have Activity Limitations



## Double Burden of Disease



## Public Health Milestones

- The World Bank's Global Burden of Disease Study (GBD)
- United Nations' Millennium Development Goals, September 2000
- WHO's Global Forum on Chronic Diseases Prevention and Control resolution, 2005

## Disaster Response & Medical Aid - What do we do now?

### Globally

- Humanitarian aid to the affected country is provided by various organizations including WHO, IFRC, UNICEF, and many other NGOs.
- Donations and pre-existing kits

### Nationally

- Homeland Security Presidential Directive 21: Public Health and Medical Preparedness
- Strategic National Stockpile (SNS) & Follow-on Vendor Managed Inventory (VMI)

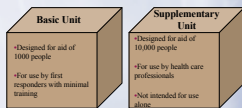
## The Interagency Emergency Health Kit (IEHK)



An attempt to establish a "reliable, standardized, affordable, and quickly available source of the essential medicines and medical devices (renewable and equipment) urgently needed in a disaster situation."

## The IEHK 2006

- Designed for the immediate health needs of 10,000 people for 3 months.
- Comprised of 10 basic units and 1 supplementary unit.



## IEHK Update 2010

- The committee recognized the need for *considering* the management of NCD's
- Too early to formulate interagency guidelines
- Agencies are encouraged to experiment with models to manage NCD's

## A Novel Initiative -



### Supplementary Units for Chronic Diseases (SUCDs)

Designed to "meet the first primary health care needs of a displaced population without medical facilities," however, specifically for NCDs.

## Objectives & Additional Activities

- SUCDs are designed to provide “reliable, standardized, affordable, and quickly available resources” for disaster response specific for NCDs.
- Additional Activities:
  - Standardized treatment plans
  - Health care training modules
  - Data collection forms
  - Feedback forms

## Primary Solutions



## Current Priority Needs

- We need to include chronic diseases in our priority needs not only in prevention of chronic diseases, but also in disaster and emergency preparedness.
- We can contribute to this effort by creating organized responses such as SUCDs to plan for the effects of disasters on this known vulnerable population.

## Conclusions

- According to the WHO, “the capacity to mobilize and deliver the right supplies, in a timely and appropriate manner, is critical to...” emergency response.
- Medical kits help to provide essential medicines and supplies to the disaster area quickly, efficiently, & reliably.
- Success requires an organized and coordinated response.

## Questions?



Thank you for your attention

References available on request  
Contact ChronAid.RBH@gmail.com

*The great epidemics of tomorrow are unlikely to resemble those that have previously swept the world, thanks to progress in infectious disease control. While the risk of outbreaks, such as a new influenza pandemic, will require constant vigilance, it is the “invisible” epidemics of heart disease, stroke, diabetes, cancer and other chronic diseases that for the foreseeable future will take the greatest toll in deaths and disability. ...In many ways, we are the heirs of the choices that were made by previous generations.... Future generations will in turn be affected by the decisions that we make today. Each of us has a choice: whether to continue with the status quo, or to take up the challenge and invest now in chronic disease[s].... (WHO, 2005).*