

# **SPREADING DISEASES IN PERU**

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# ZIKA VIRUS

- Zika Virus is a disease spread through mosquito bites and unprotected sex.
- Most times is spread from pregnant women in which birth defect occurs.

## Symptoms:

- pain in back of the eyes, joints, and muscles
- Whole body fatigue, fever, chills, loss of appetite, and sweating
- Eye redness, headache, skin rash , and vomiting
  - symptoms are mild and last less than a week

## Treatments:

- Focus on relieving through rest. Rehydration , and acetaminophen.
- Avoid using aspirin/ non - steroidal anti- inflammatory drugs



# ZIKA VIRUS

## Specialist needed:

- Infectious disease doctor
- Primary care provider (PCP)

## Medications:

- Analgesic- relieves pain
- Antihistamine – reduces/ stops allergic

reaction transmitted from pregnant women and birth defect.

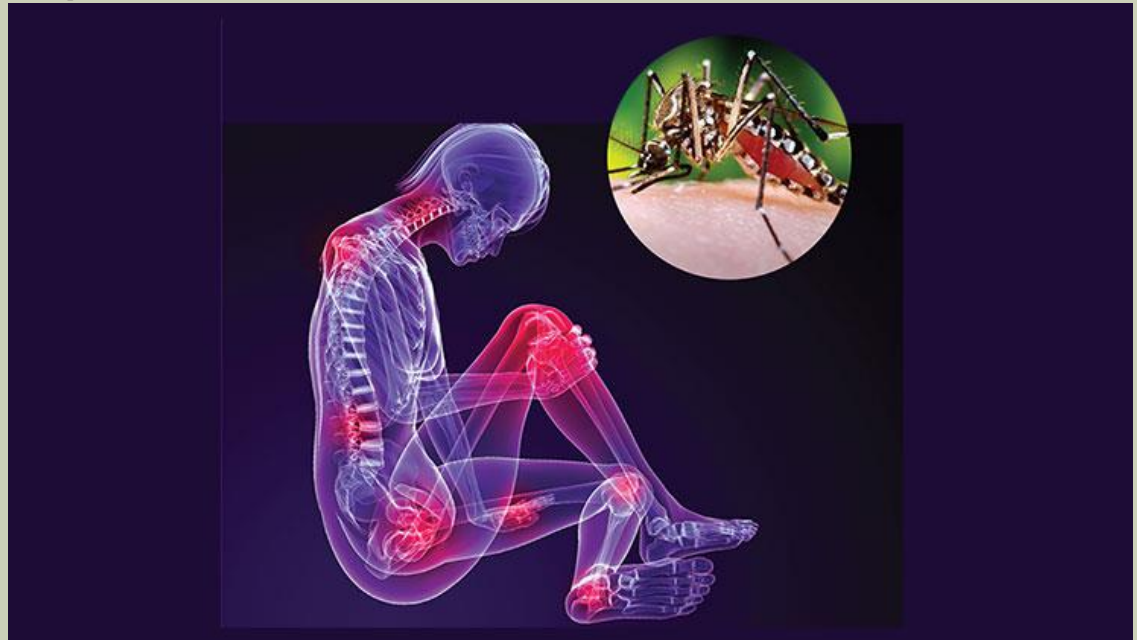
- Postpone pregnancy

## In Peru

- Installed over 20,000 ovitraps in 2015 for dengue outbreak and did the same for Zika
- Health Ministry of Peru got involved
- First patient found in Jan, 2016

# CHIKUNGUYNNA

- It is an arbovirus transmitted by Aedes mosquitos.
- The most prominent frequent feature is severe arthritis with joint pain and swelling, muscle pain and headache.
- Joint pains may last months or years and may become a cause of pain and disability.
- No real treatment just protect from bites



# CHIKUNGUYNA

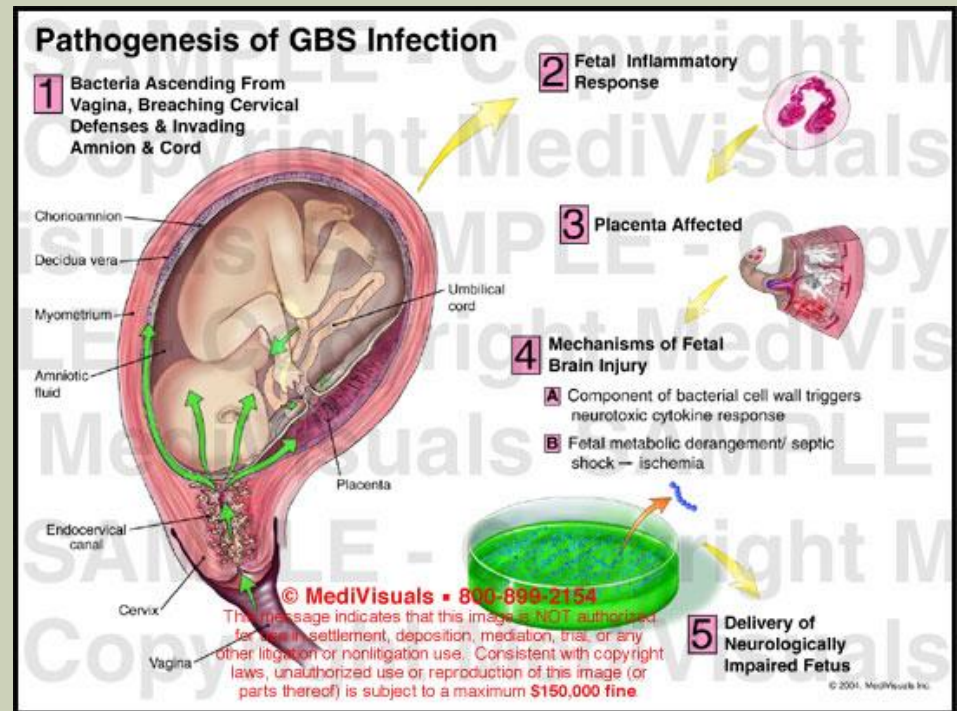
- First described in epidemic form in East Africa between 1952-1953
- Child found with chikungunya from Zarumilla, Tumbes
- Confirmed positive by testing NIH in case of native chikungunya
- Since Ecuador had it , Columbia and Bolivia had high numbers risk of disease in Peru was high



# GUILLIAN BARRE-SYNDROME (GBS)

- A condition where the immune systems attack the nerves
- Mainly triggered by an acute bacterial or viral infection
- It is a very rare disease with fewer than 20,00 US cases per year.
- Condition does require medical diagnosis:
  - pain in the muscles
  - abnormal walking, problems w/ coordination
  - fatigue or high blood pressure
  - abnormal heart rhythm or fast heart rate

- Strong temporal correlation between the outbreak/ later spikes in GBS and suspected microcephaly



Exhibit# 404088-02X

# GUILLIAN BARRE-SYNDROME (GBS)

## Symptoms:

- Weakness/ tingling in feet and legs that spread to the upper body. paralysis may occur

## Treatments:

- Special blood treatments like plasma exchange, and immunoglobulin therapy may relieve symptoms.
- Physical therapy

Medication- blood transfusion

Supportive care- ventilation and intubation

Specialists – neurologist , CCD , Rehab, Pedi, RCP, etc

# CHAGAS DISEASE

- An infectious disease caused by a parasite found in the feces of the triatomine bug

## Symptoms:

- Can be mild, causing swelling and fever or it can be long lasting
- Untreated can cause congestive heart failure

Pain: in abdomen or muscles

Whole body: fever or body ache, abnormal heartbeat or skin rash

## Treatment:

- Taking medications that kill the parasite and on managing symptoms

-Chronic disease can last for years or be lifelong

- Lab test or imaging always required





# CHAGAS DISEASE

- Medication: anti- parasite: pyrethin
- Preventative: bed netting and insect repellent
- Specialists:
  - infectious disease doctor-which treats infection including tropical in nature
  - cardiologist- specializes in heart disorders
  - Gastroenterologist-focuses on digestive system and its disorder

Peru: infectious rates are as high as 40% in rural communities

# REFERENCES

- Peru reports first patient carrying the Zika virus  
January 29, 2016 [www.reuters.com/article](http://www.reuters.com/article)
- Zika fever  
May 10, 2016 [www.google.com/search?q=zika+fever](http://www.google.com/search?q=zika+fever)
- Chikungunya : 1<sup>st</sup> locally acquired case reported in Peru  
June, 10, 2015 <http://outbreaknewstoday.com> Robert Herriman
- GBS Guillian Barre-Syndrome  
May 10, 2016 [www.google.com/search?q=guillian+barre+syndrome](http://www.google.com/search?q=guillian+barre+syndrome)
- CIDRAP  
May 3, 2016 Lisa Schnirring [www.cidrap.umn.edu/news...](http://www.cidrap.umn.edu/news...)
- Chagas Disease  
May 22, 2016 [www.google.com/search?q=chagas+disease](http://www.google.com/search?q=chagas+disease)