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The Kiss of Death - Chagas Disease

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Abstract

Chagas disease is a dangerous epidemic affecting the uneducated in poverty-stricken countries and is therefore often neglected. Besides the lack of knowledge, there is a deficiency of medication used to treat the disease. The spread of Chagas can be avoided through a combination of well-researched methods.

Need:
To prove that Chagas disease is a problem and to stop the spread in Bolivia.

Approach:
Prevent infection through:  
1. Education  
2. Use of insecticides/ bed nets 
3. Housing Improvements 
4. Screening of blood/organ donors

Why Prevention?
- Lack of medicine to cure disease
- Why Bolivia?

% Infected

Background

- Neglected tropical disease
- Flu-like symptoms
- Spread by triatomine bugs
  - Parasite infects the skin
- Disease can be transmitted human to human (transfusions/ transplants) or animal to human
- No vaccine
- Medication is very limited
- If not treated, leads to death

Methods of Prevention

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Pros</th>
<th>Cons</th>
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</table>
| Insecticides               | Most Effective   | Expensive
|                           |                  | Needs maintenance
|                           |                  | Possibly dangerous
|                           |                  | Possible resistance
| Native Plants/Predators    | Easily accessible| Not as effective as insecticides
|                           |                  | Could harm ecosystem|
| Insecticidal Paint         | Easy to apply    | Not always accepted by community
|                           |                  | Only applicable to certain houses|
| Insecticide Treated Bed Nets | New LLINs       | Limited usage
|                           |                  | Not always used|
| Insecticide Treated Clothes | Effective when outside | Needs maintenance
|                           |                  | Expensive
|                           |                  | Not tested with triatomines|

Conclusions

Chagas disease is a neglected disease in need of prevention. The only medicine, Benznidazole, is no longer being produced and the current supply is diminishing. Combining preventative measures such as insecticides, housing improvements, caution of transmission, and knowledge of symptoms can lead to a healthier life and lower risk of infection. These measures have been proven effective through past studies in regions similar to Bolivia.

References