

Say "NO" to poor health!

"NO"

NO

Scientists have proposed some excellent projects. We should attack disease from every angle.

But what makes the poor get sick more often? Teresa's story may give us some clues.

Pick out 5 factors that put her family at risk.

Choose the best project to tackle each cause.



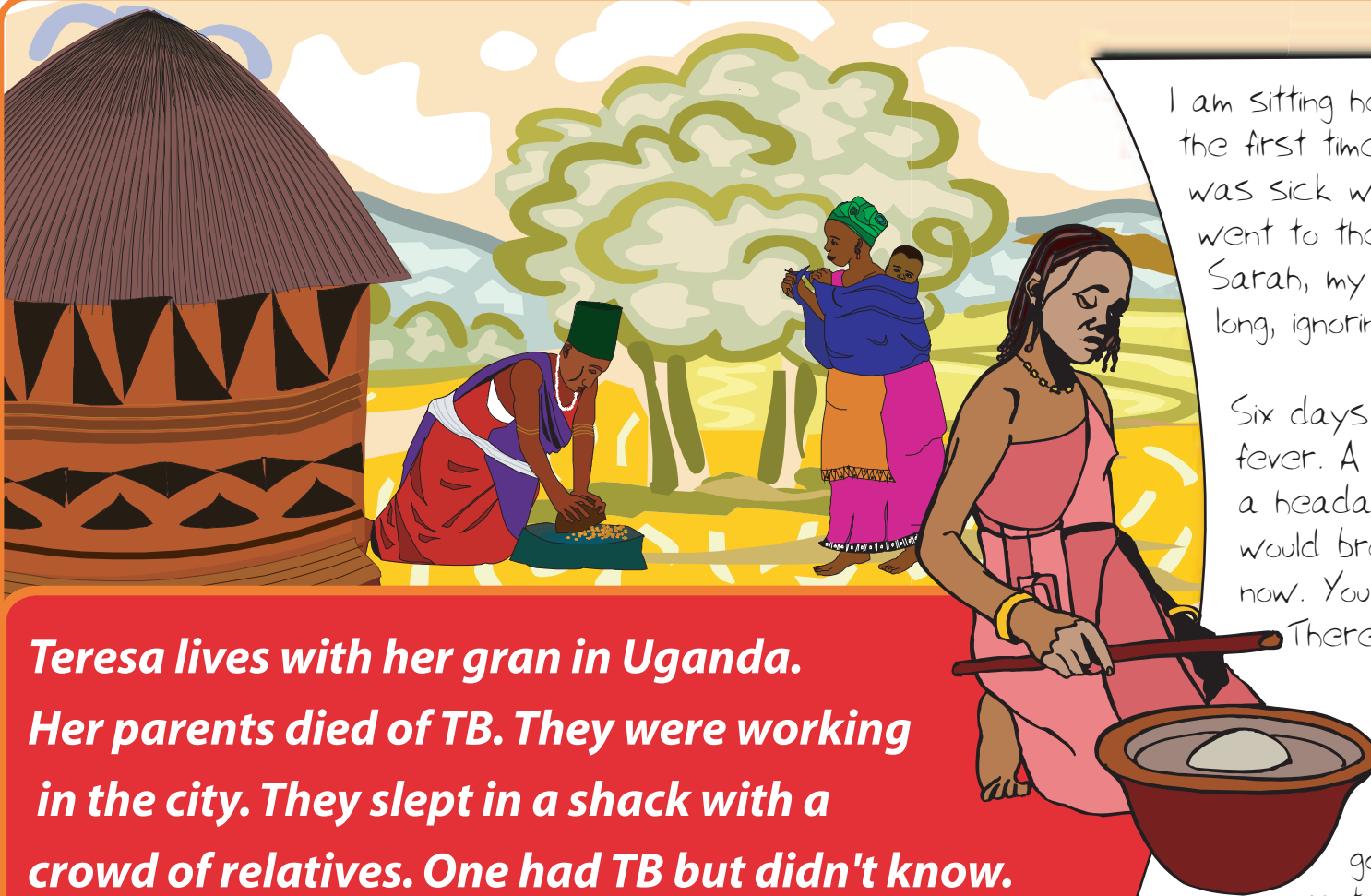
Poverty and poor health go together. But could the connection be broken? Bill Gates certainly thinks so. He wants to fund the science that can make it happen.



NO

NO

Teresa's story



Teresa lives with her gran in Uganda. Her parents died of TB. They were working in the city. They slept in a shack with a crowd of relatives. One had TB but didn't know. He passed it to the others when he coughed. They hadn't been vaccinated and their immune systems were weak. They ate the cheapest food and didn't get enough vitamins and minerals.

I am sitting here eating cassava porridge. It is the first time I have been outside for days. I was sick with dengue fever. One evening I went to the river to wash my school clothes. Sarah, my cousin, was there. We chatted too long, ignoring the mosquitoes singing in our ears.

Six days later, I couldn't get up. I had a fever. A mosquito must have bit me. I had such a headache, and my bones felt like they would break. Thank goodness I feel better now. You just have to hope for the best. There aren't any medicines you can take.

Sarah has a bad cough. It could be TB. My gran walked miles to the clinic with me to make sure I got vaccinated, but Sarah never went. She's scared she might have HIV.

That makes other infections worse. She had a boyfriend last year but he went back to the city. She doesn't know if he was infected. I pray it isn't HIV. There's no cure - you get it for life.

Project proposals

A Genetically modify **cassava** to produce more protein, vitamins and minerals, but still grow in poor soils.

The roots provide staple foods for 250 million Africans.



B Formulate powdered **vaccines** that dissolve in water and can be drunk. They could be taken to remote areas where fridges and needles aren't available.

27 million children receive no vaccines.



C Create a **test-card** that could check blood for TB and HIV in a few minutes.

People could be treated if tests could be done in remote villages.

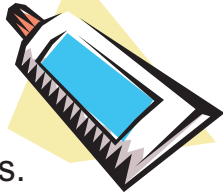


D Introduce genetically modified **mosquitoes** that can't spread malaria and dengue. Up to 600 million people per year get infected.



E Develop a **vaccine** to make the cells lining the vagina immune to HIV. Women would be able to apply it themselves as a gel.

Three million people a year die from HIV/aids. There is no effective vaccine.



F Grow **rice** with more protein, vitamins and minerals.



G Come up with a **vaccine** that can be given in one dose.

Long journeys to clinics put people off vaccination.



H Devise a way of **detecting** 'dormant' TB **infections**, so sufferers can be treated before it flares up.

One sufferer can infect many others where people live in crowded conditions.



I Engineer new **banana** varieties with more vitamins and minerals.

One third of children are malnourished in Uganda where bananas are the staple food.



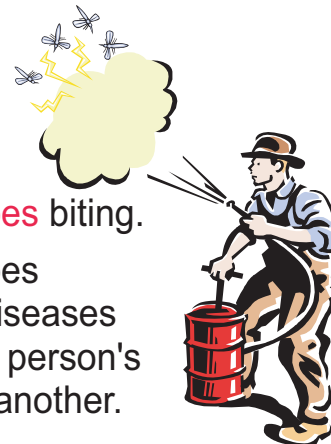
J Produce **vaccines** for diseases spread by mosquitoes, like dengue and malaria.

They kill more than a million young children every year.



K Invent a spray to stop **mosquitoes** biting.

Mosquitoes spread diseases from one person's blood to another.



L Find ways to **prevent** bacteria developing **resistance** to drugs.

New medicines are too expensive for developing countries to use.

