



SUPERBUGS

BY EMILY SCHLESINGER

Unstoppable

2009

Doctors gather at a hospital. It is in Tokyo, Japan. They are puzzled. A strange goo oozes from a woman's ear. The lab tests a sample. Results show it is a **fungus**. No one has ever seen it before. They call it *C. auris*.

2012–2013

C. auris begins popping up around the world. It is seen in South America. There are **outbreaks** across Africa. **Infections** happen in India. Experts notice something strange. The germ is not being carried to these places. No one is transporting it. Instead, it seems to be appearing out of nowhere. Up to half of the people who get it die.



FAST FACT: *C.* is short for *Candida*.

This is a type of single-celled fungus. *Auris* means "ear" in Latin.

***C. AURIS* FUNGUS**



2015–2016

A hospital in London has a problem. There is a germ going around their intensive care unit. They decide to evacuate. Patients are moved into **isolation**. Then staff members go to work. Every surface is scrubbed down. Rooms are filled with a gas. This is supposed to kill all germs.

Later, they do tests. Special plates are put out. These collect germs. At first, it looks like everything was killed. Then they look closer. Only one germ remains. Nothing could kill this one. It is *C. auris*.



2018–2019

A man walks into a hospital for surgery. This is in New York. He tests **positive** for *C. auris*. Hundreds have already been sickened by it in the U.S. Doctors want to stop the spread. They isolate the man. But they cannot save him. Soon, he dies.

They test the room. *C. auris* is everywhere. It is on phones, faucets, lights, and door handles. The fungus hides in breathing tubes. *C. auris* even clings to the curtains.

The hospital has no choice. Ceilings are torn out. Floors get ripped up. Walls are knocked down. Hospital workers will do anything to stop the germ. But they are too late. It spreads to 50 more people. Some say it cannot be stopped.



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A Powerful Enemy

"This bug is the most difficult we've ever seen." Those are the words of Tom Chiller. He is a health expert at the CDC. Most fungi are not killers. *C. auris* is different. The germ **mutated**. Now it can live outside of people's bodies. This lets it spread fast. But *C. auris* has an even greater power. It can **resist** drugs. The strongest medicines do not kill it. That makes the germ hard to stop.



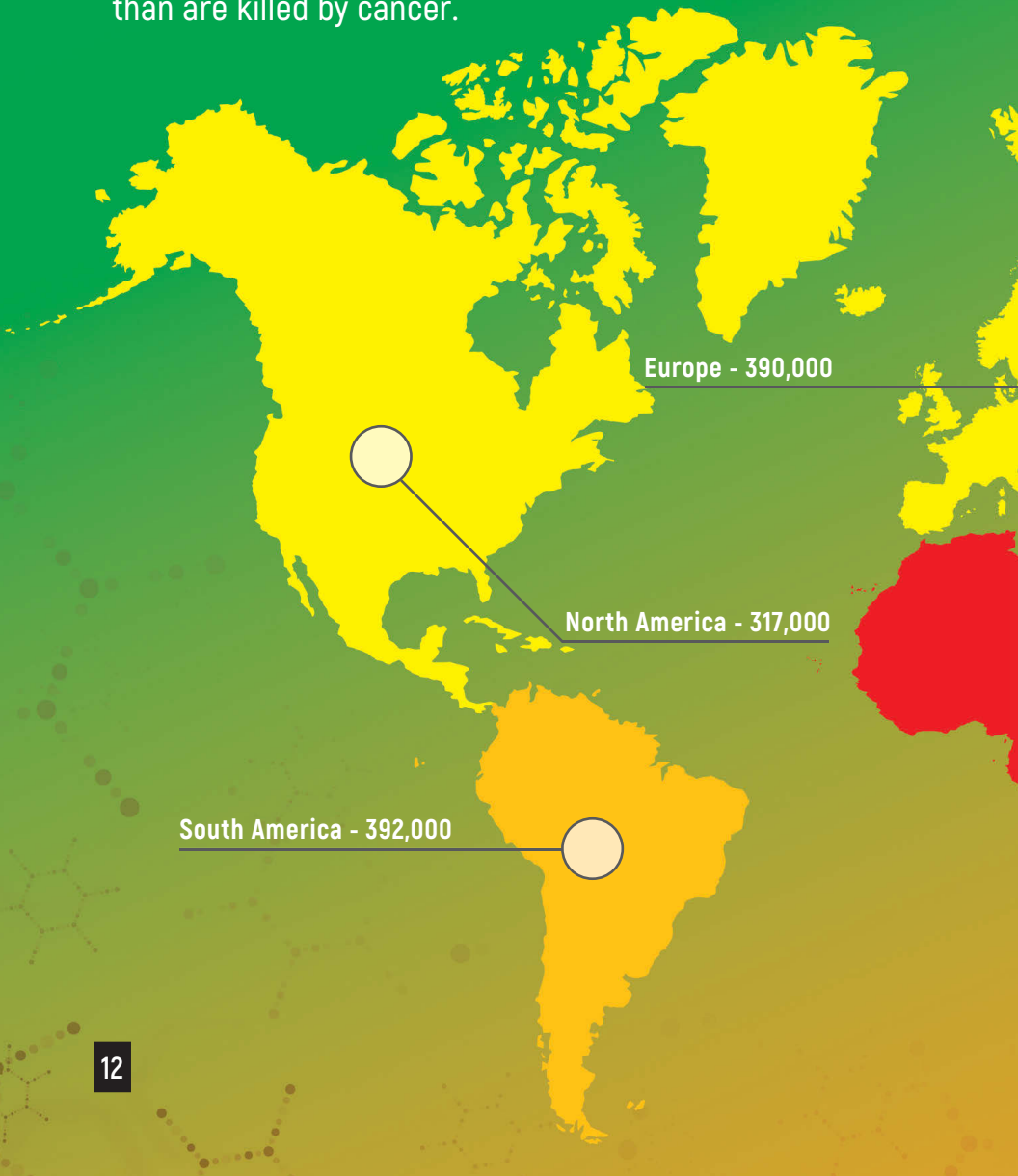
C. auris is not one of a kind. It is part of a growing problem. More and more bugs are acting this way. These are called superbugs. Some are **bacteria**. Others are fungi or **viruses**. What makes them “super” is their ability to survive. Most drugs cannot kill them. A few can survive every known drug. This makes them a doctor’s worst nightmare.



FAST FACT: CDC stands for the Centers for Disease Control and Prevention. This agency of the U.S. government is responsible for protecting public health.

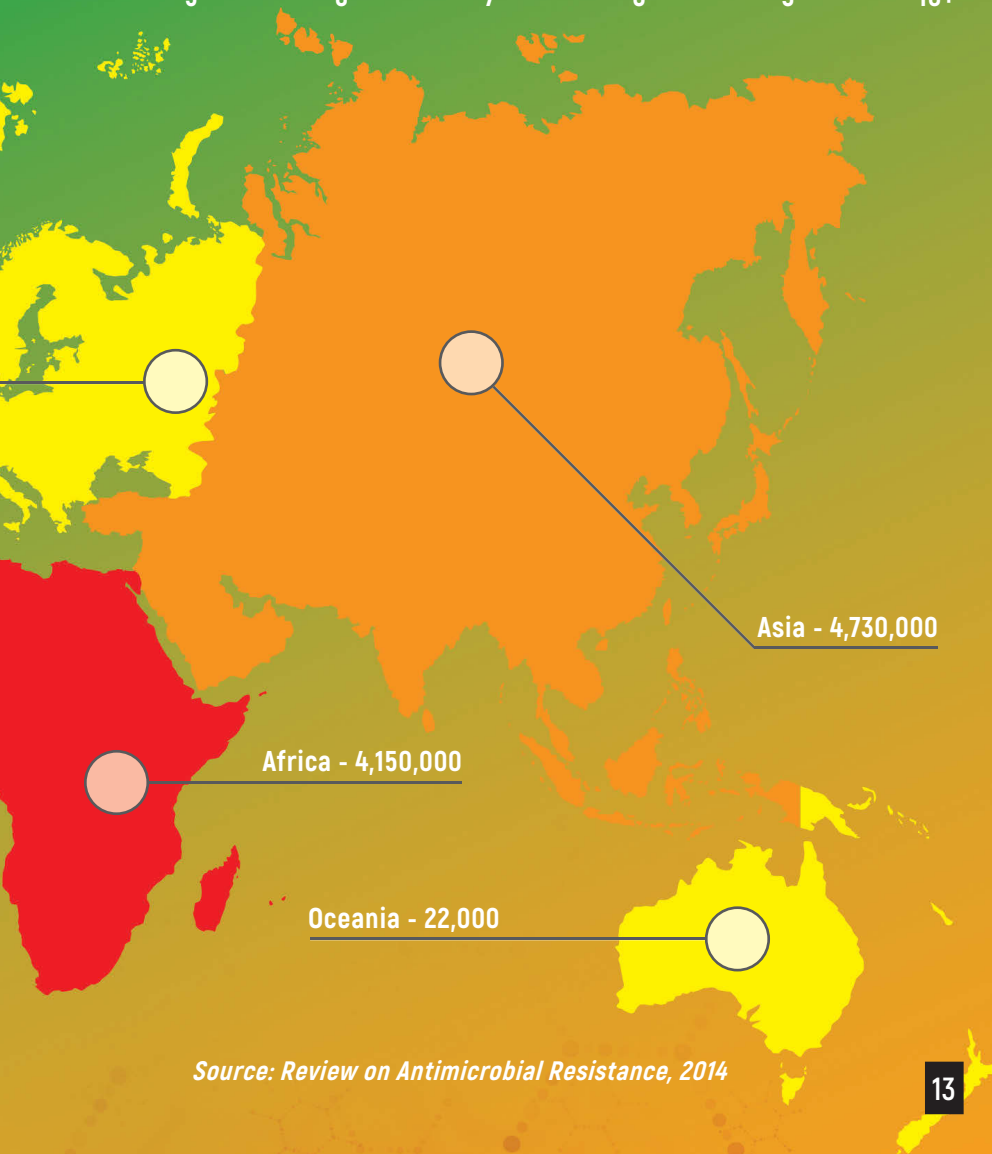


Superbugs are already claiming lives. They kill 700,000 people each year. But the future may be scarier. This number is expected to climb. By 2050, ten million people could die each year. That is more than are killed by cancer.



Projected Yearly Deaths from Superbugs by 2050

Deaths per 10,000 people



Source: Review on Antimicrobial Resistance, 2014



Medicines have gotten better. Science has improved. More drugs are given than ever before. Why would superbugs get worse? Drugs may actually be the problem. We are taking too many.

Bugs are starting to **adapt**. They are getting used to the drugs. What once killed them no longer does. Many medicines that worked for years now fail. That leaves us without our most valuable weapon.

