

1928 Diagnostics - Outsmarting superbugs

Susanne Staaf, COO, 1928 Diagnostics AB

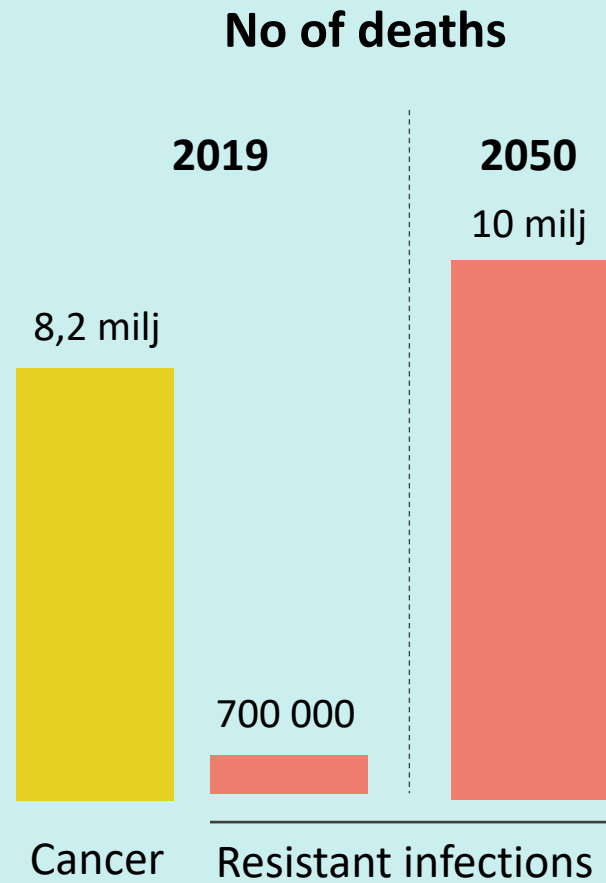




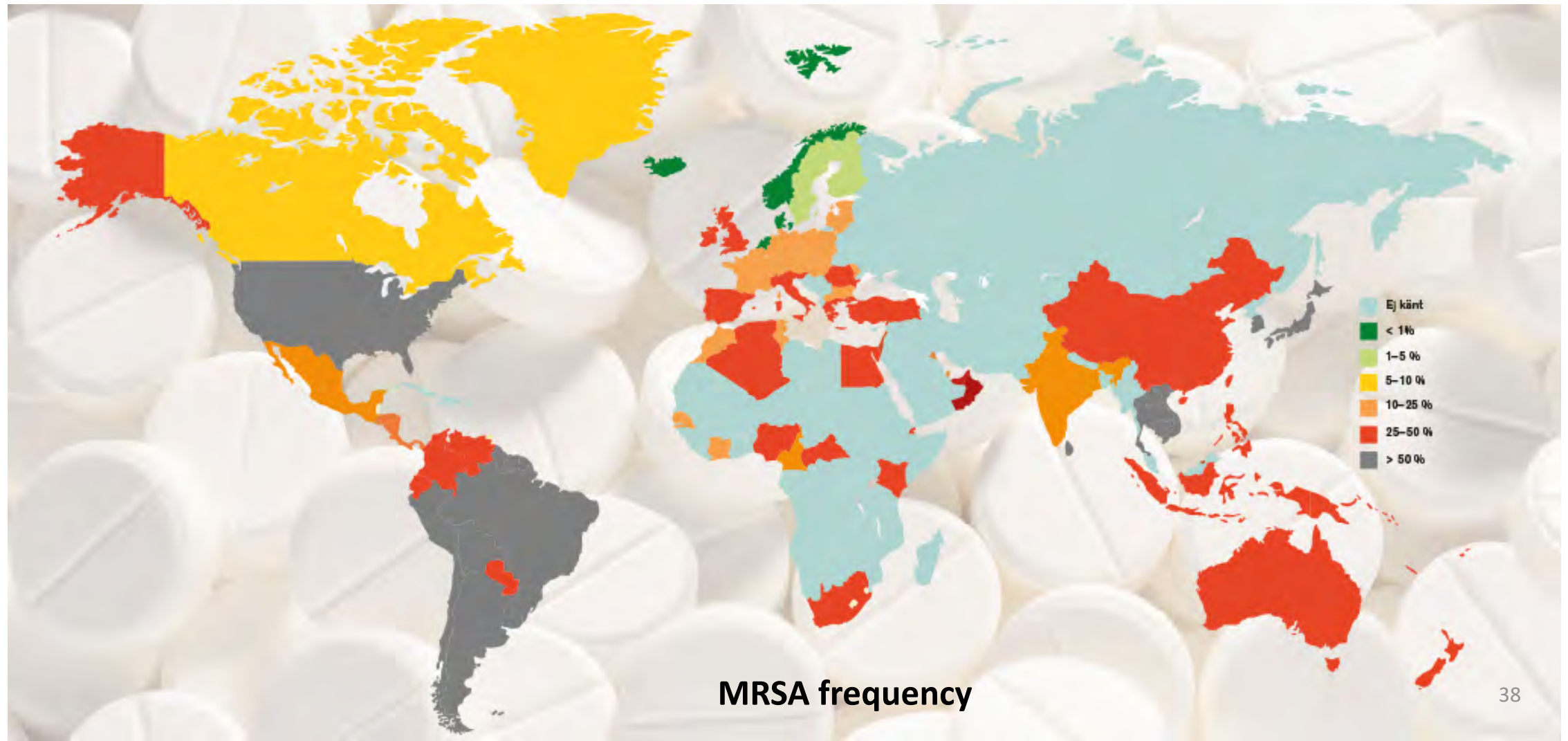
Outsmarting superbugs

A Great Day 2019

Antibiotic resistance - an emerging global crisis



Common infections are now multiresistant



Resistance is spread in the hospitals

Hospital Aquired Infections

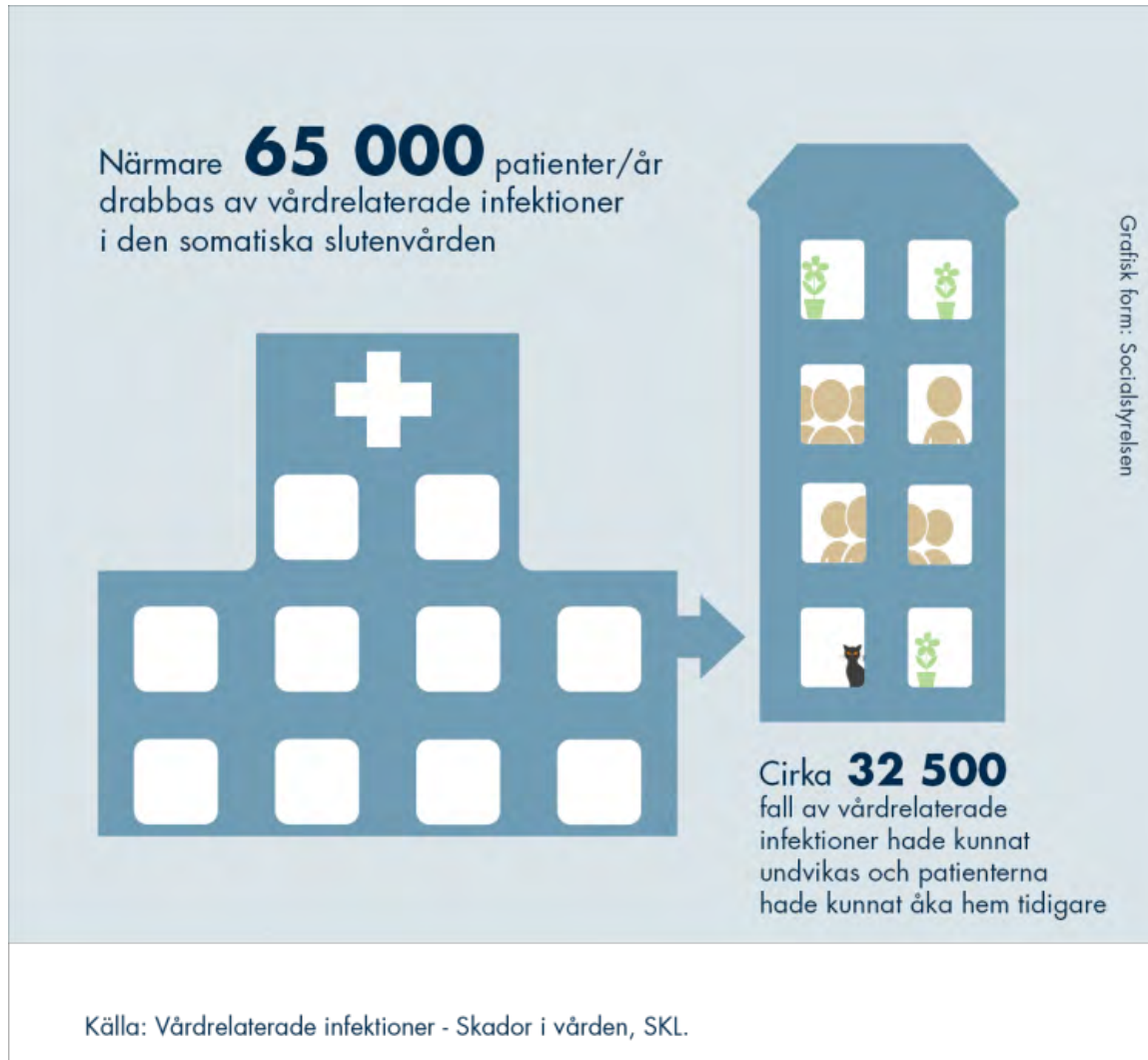
Affect
4,5 %
of all patients

Cost
\$ 40 billion
(US only)

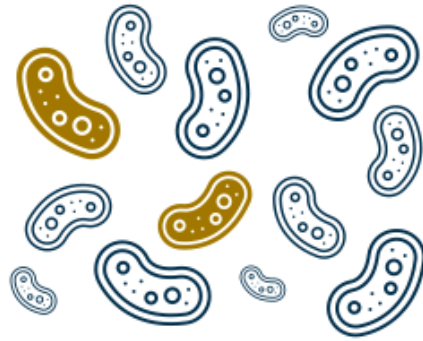
Deaths
99 000
(US only)



Vårdrelaterade infektioner i Sverige



HOW ANTIBIOTIC RESISTANCE HAPPENS

**1**

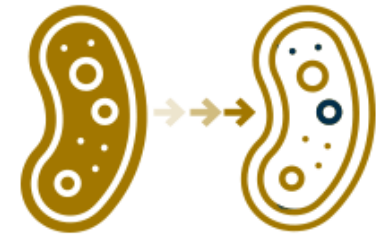
- **Lots of germs.** A few are drug resistant.

**2**

- **Antibiotics kill bacteria causing the illness,** as well as good bacteria protecting the body from infection.

**3**

- The drug-resistant bacteria are now allowed to **grow and take over.**

**4**

- **Some bacteria give their drug-resistance to other bacteria,** causing more problems.

Source: Centers for Disease Control and Prevention (CDC)

Digitalizing the microbiology lab

From analogue



Culture

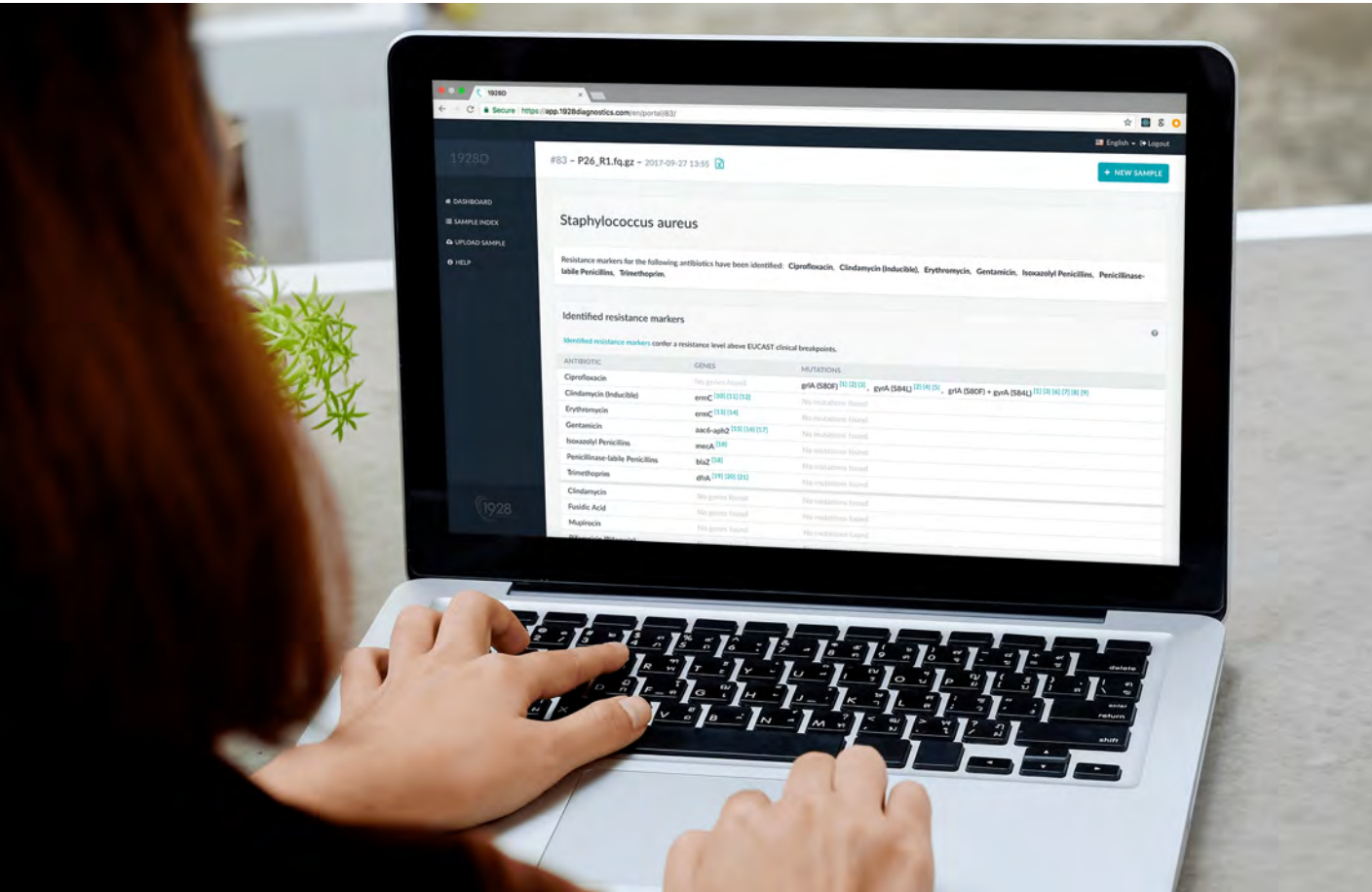


To digital

```
CCAAATTTGAATCTCAGC  
CCATTGGTATTTGAATC  
GGGATCAGCCTCATTGG  
GCCCAAATTCATTGGTATT  
TGAATCAGCCTCATTGGG  
CATTGGCCCAAATTATT
```

DNA

An easy-to-use cloud service for microbiology labs worldwide

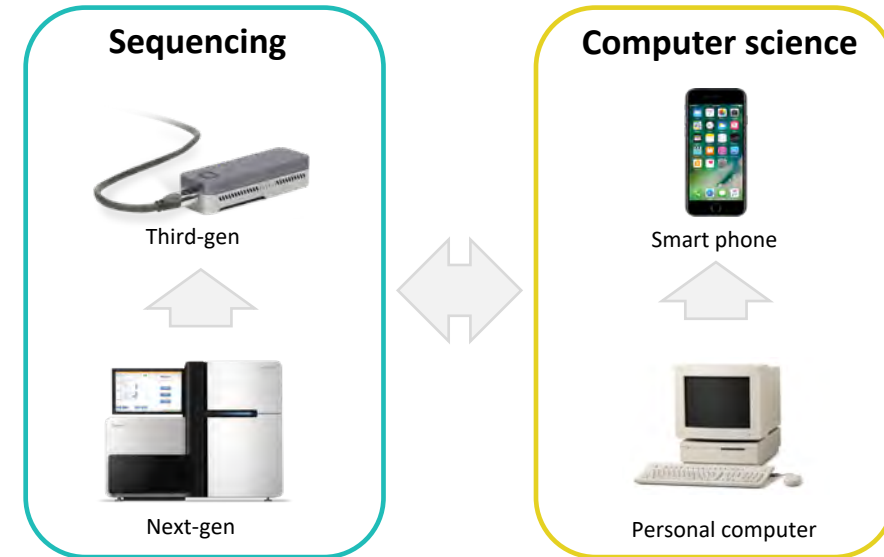
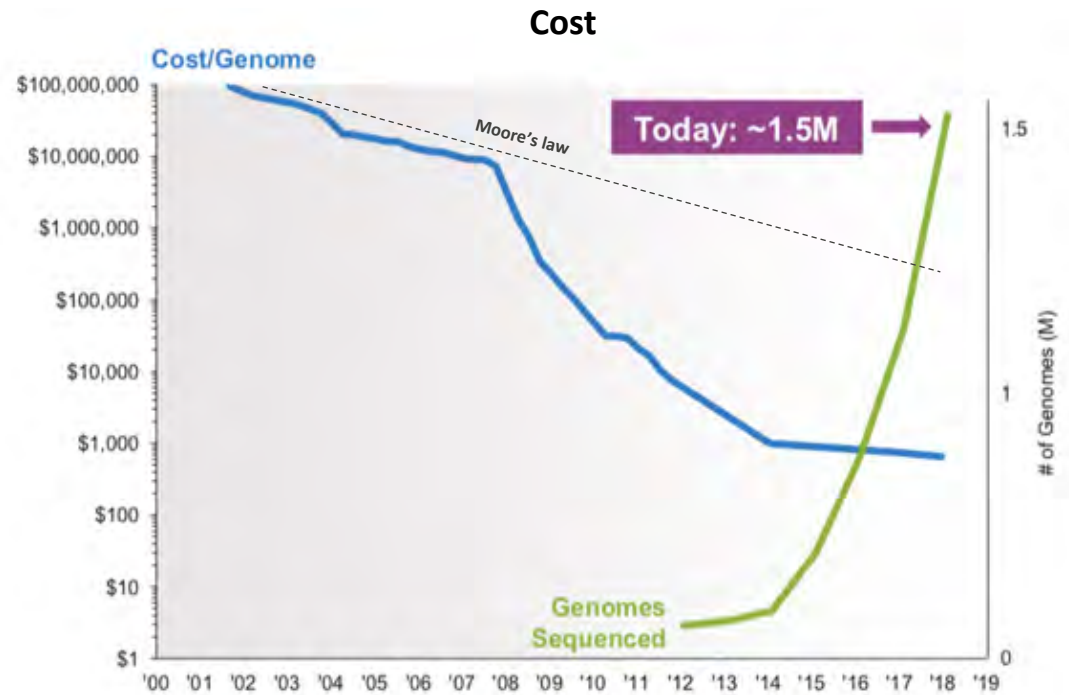


From raw data to actionable results in minutes

1. Detect infection
2. Identify antibiotic resistance
3. Determine severity
4. Trace outbreak
5. Share results

1928 stops the outbreak before it starts

The revolution of DNA sequencing

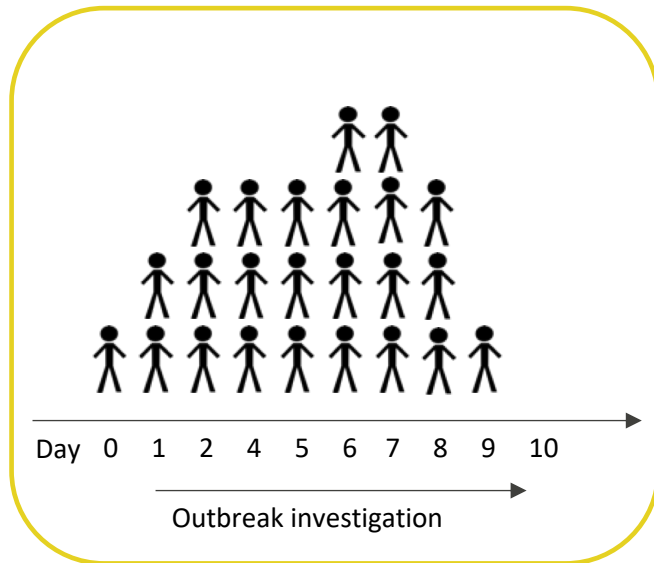


The third generation sequencers are democratizing DNA sequencing - NOW!

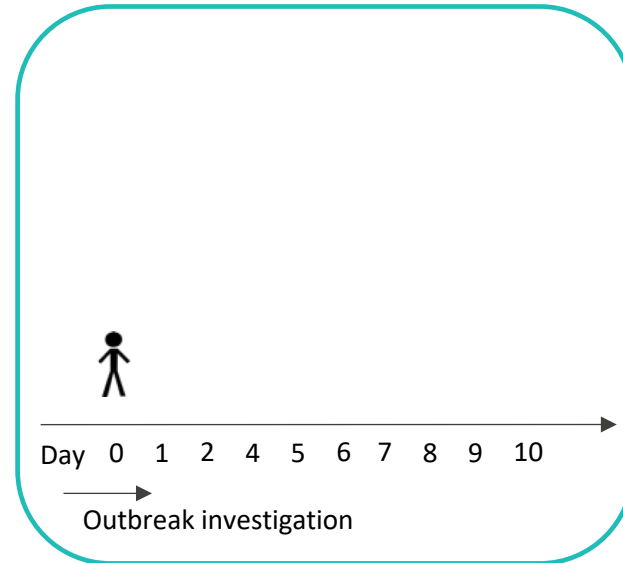
Efficient data analysis is key for broad use in clinical routine

Predicting outbreaks saves lives and costs

TODAY



THE 1928 SOLUTION



Savings per year

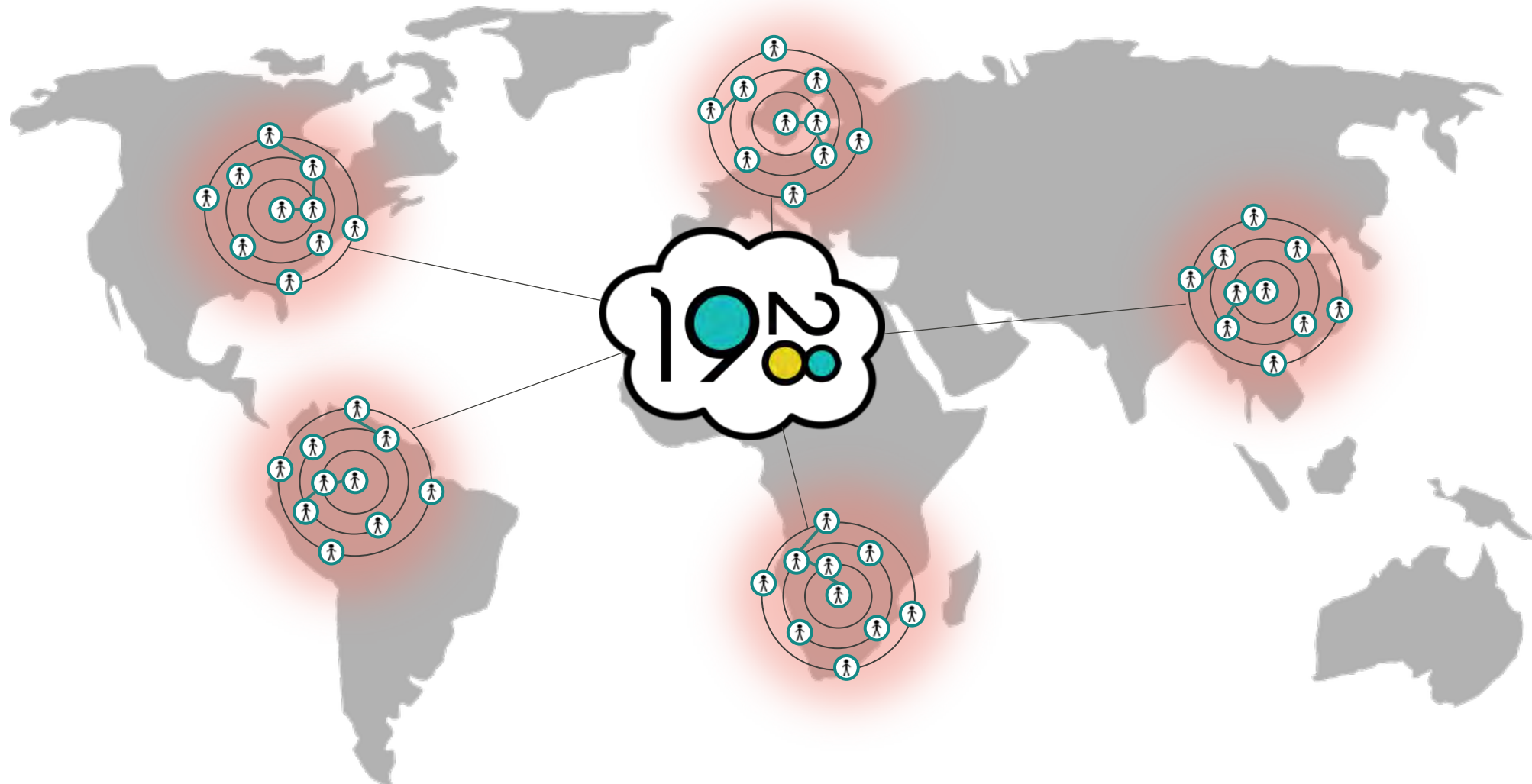
USA

\$20 bn cost
850 000 infections

Sweden

3 bn kr cost
32 500 infections

Outbreak tracing without borders



RapidShare – Swedish healthcare connectivity



The team





Thank you!

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