Data, a driver of innovation

We can help make communities healthier and safer around the world

Michael Simpson

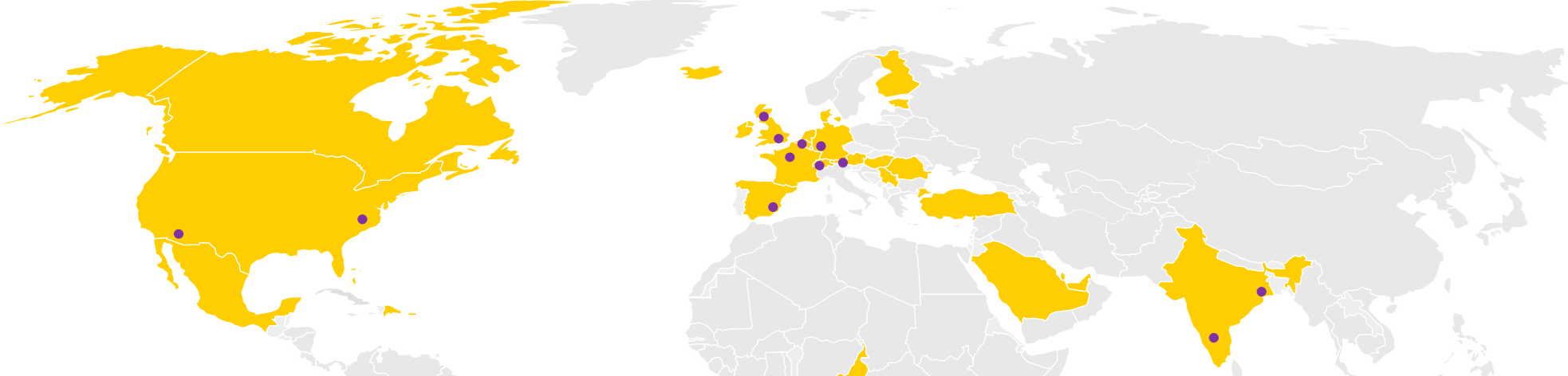Chief Executive Officer

April 2024

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Why we do what we do!

To help make communities **<u>healthier and safer</u>** around the world.

- Leading innovation in laboratory informatics

- Both inside and beyond the walls of laboratories

- Safeguarding health and safety around the globe

01 May 2024

Clinisys, global scale and expertise

39 — Countries across North America, South America, UK, Europe, Middle East, and Australia

4,000+ — Customers worldwide using Clinisys solutions

#1 — Global clinical laboratory information systems provider
(source: Signify Research)

20% — Clinical laboratories worldwide use our information systems
(source: Signify and Clinisys Research)

45+ — Years of laboratory informatics experience

12 — Offices and support centers serving customers worldwide across products in 5 languages
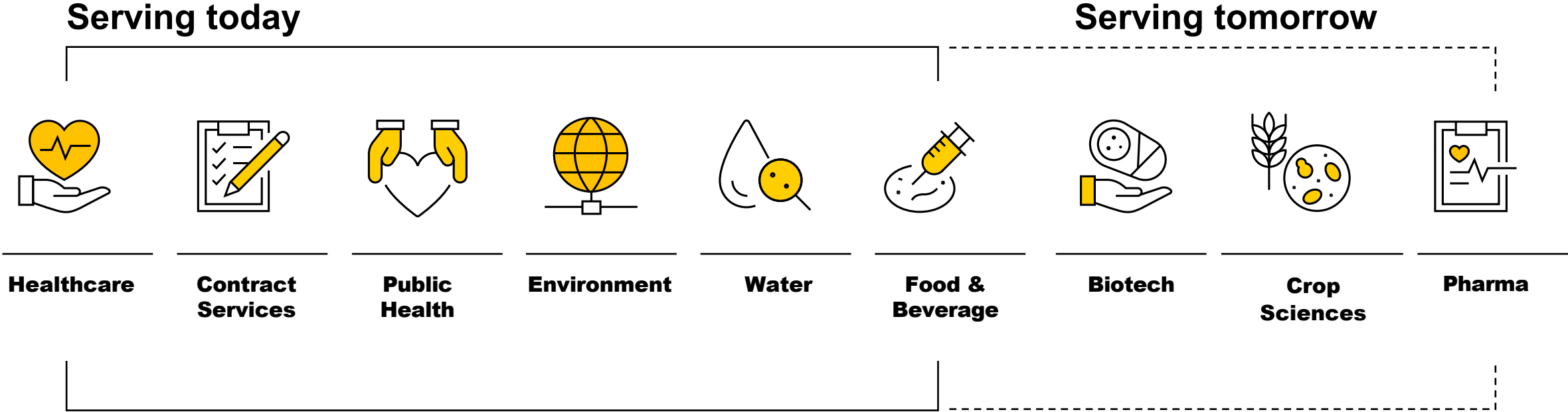
1,450 — Lab informatics professionals based in 12 countries

22 — Specialist disciplines supported across 9 major lab industry sectors

The laboratories we serve

Serving today　　　　　　　　　　　　　　　　**Serving tomorrow**

| Healthcare | Contract Services | Public Health | Environment | Water | Food & Beverage | Biotech | Crop Sciences | Pharma |

We serve all sizes of lab operation: scaleups, enterprise, regional, national, country-wide

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Health drivers are only discoverable in the data

Many of the things that impact our health and safety that have yet to be identified, monitored, or regulated - within the data are all the indicators….

- Just a few headlines…
  - Autoimmunity has reached epidemic levels
    - Addison disease
    - Celiac disease
    - Dermatomyositis
    - Graves disease
    - Hashimoto thyroiditis
    - IB (Crohn disease, ulcerative colitis)
    - Multiple sclerosis
    - Myasthenia gravis
    - Pernicious anemia
    - Reactive arthritis
    - Rheumatoid arthritis
    - Sjögren syndrome
    - Systemic lupus erythematosus (lupus)
    - Type I diabetes

  - Autism rising at an alarming rate, 1 in 36 (2020)
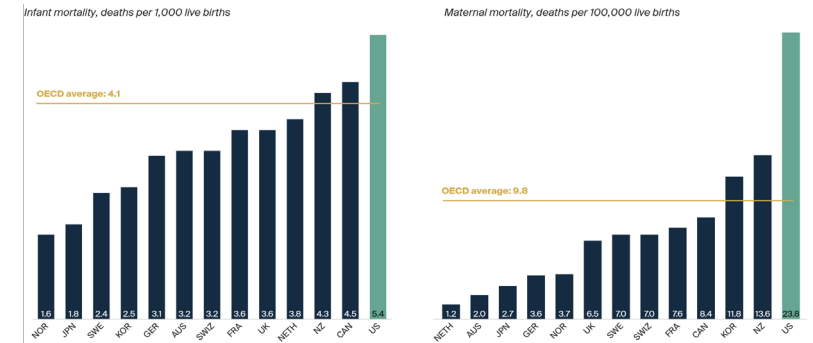
    1 in 150 (2000)

  - Assisted Reproductive Technology babies 50% increase since 2012 (2.4% in 2023)

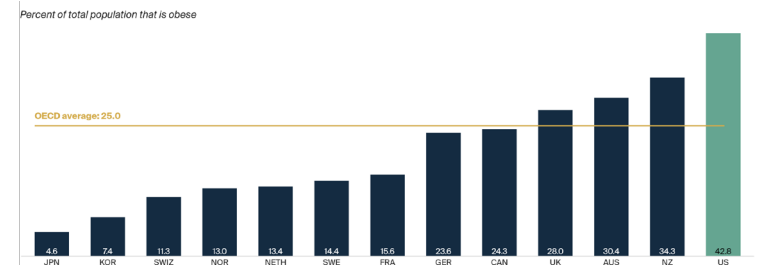 - Mental illness in Women up 22.2%, Men up 6.76%

  - U.S. life expectancy in decline

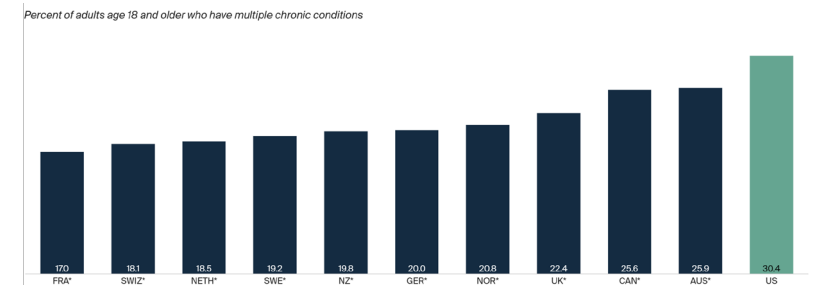- **What is behind the degradation of our Health?**

The U.S. has the highest rate of infant and maternal deaths

The U.S. obesity rate is nearly double the OLCD Average

Adults in the U.S. most likely to have Multiple Chronic Conditions

U.S. Health Care from a Global Perspective, 2022 | Commonwealth Fund

Could it be?

- **Air, Food, Environment, it is not just about Genetics?**

Legal in the USA banned in other countries
- High Fructose Corn Syrup
- Red Dye 40
- Yellow Dye 5
- GMOs (Genetically Modified Organisms)
- Potassium Bromate
- Olestra
- rBGH (Recombinant Bovine Growth)
- BHA (Butylated Hydroxy anisole)
- BHT (Butylated Hydroxy toluene)
- Acesulfame Potassium
- BVO (Brominated Vegetable Oil)
- Chlorpyrifos
- Carrageenan
- Neonicotinoid Insecticide
- Partially Hydrogenated Oils
- CO Treated Meat
- Chlorinated Chicken
- Azodicarbonamide

PFAS Explained (aquagga.com)

Study Finds Microplastics In 93% Of Bottled Water
Lowest & highest number of plastic particles found per liter of bottled water (location & brand)

Brand	Manufacturer	Country Tested	Concentration
Nestle Pure Life	Nestle		6–10,390
Bisleri	Bisleri International		0–5,230
Gerolsteiner	Gerolsteiner Brunnen		9–5,160
Aqua	Danone		0–4,713
Epura	PepsiCo		0–2,267
Aquafina	PepsiCo		2–1,295
Minalba	Grupo Edson Queiroz		0–863
Wahaha	Hangzhou Wahaha Group		1–731
Dasani	Coca-Cola		2–335
Evian	Danone		0–256
San Pellegrino	Nestle		0–74

325 Average number of plastic particles for every litre of water sold
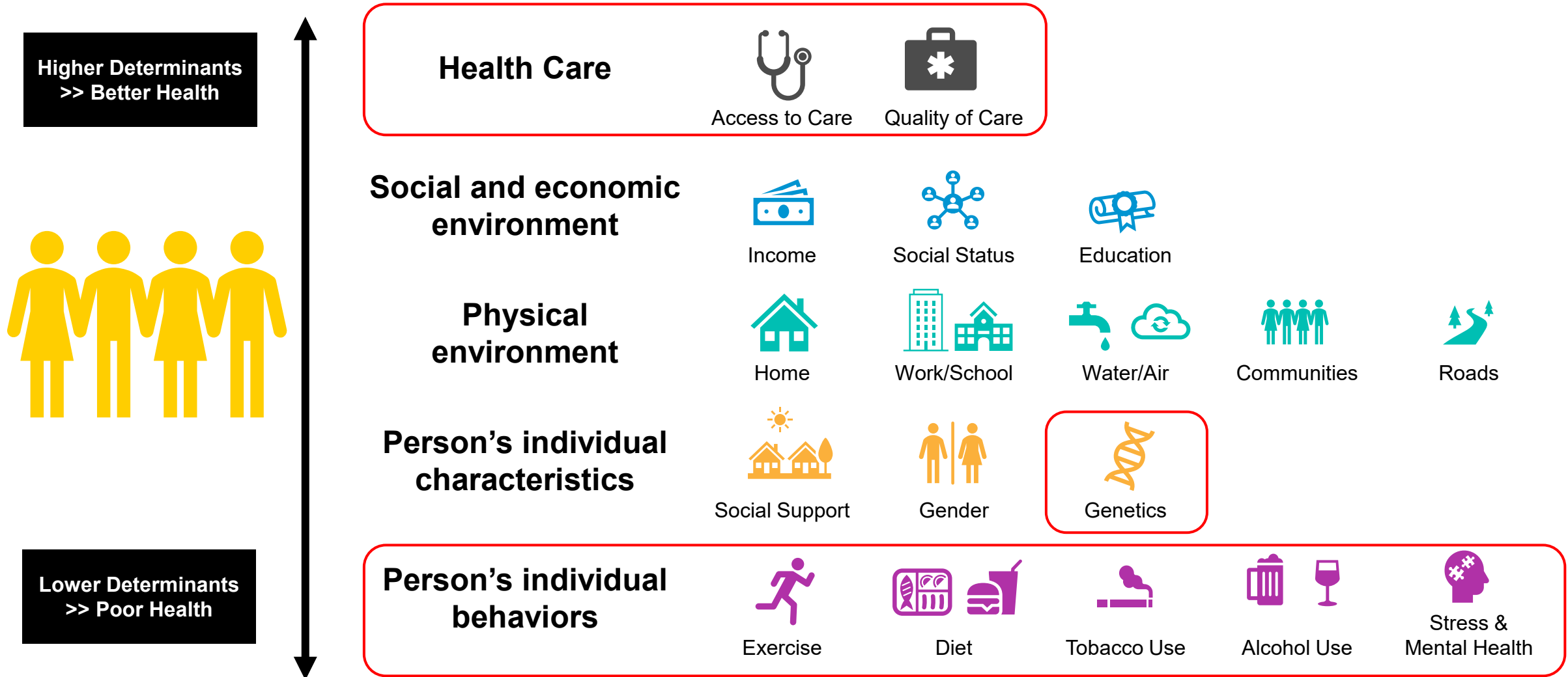
n=259 bottles from 11 brands across nine countries.
Plastic discovered included polypropylene, nylon, and polyethylene terephthalate.

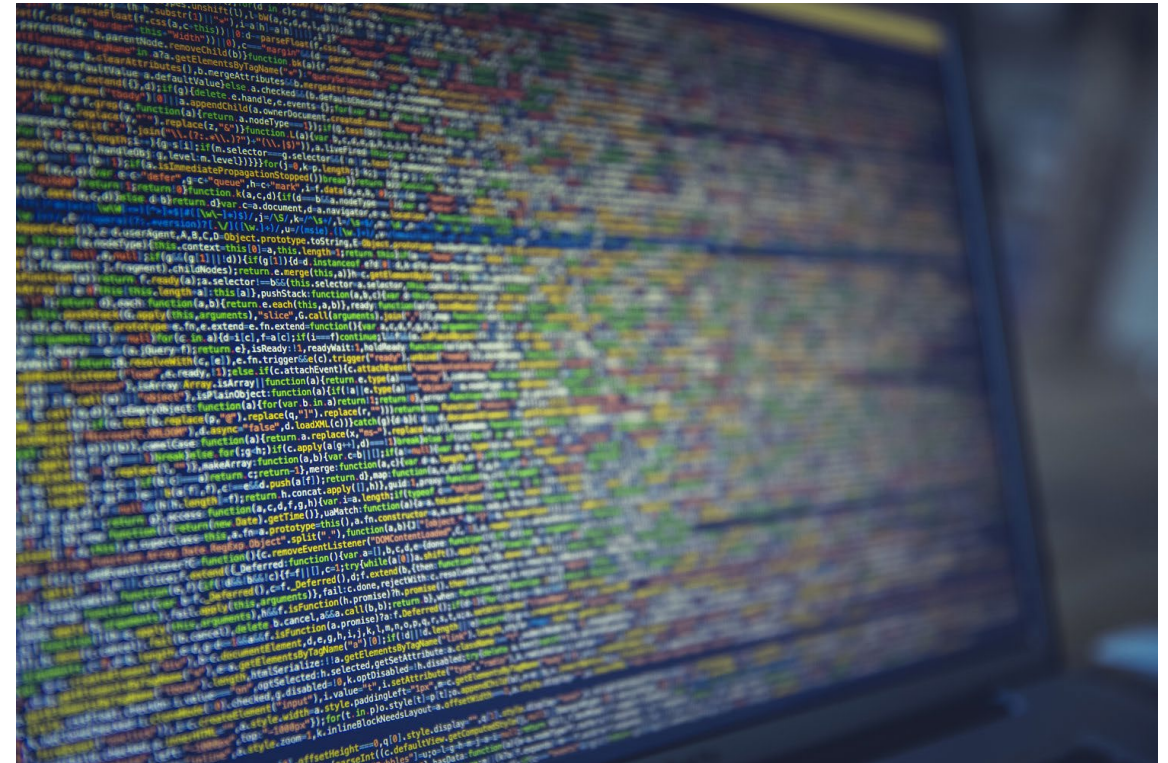@StatistaCharts   Source: Orb Media

Forbes statista

Study Finds Microplastics In 93% Of Bottled Water [Infographic] (forbes.com)

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Determinants of health

Higher Determinants >> Better Health

Lower Determinants >> Poor Health

Health Care
- Access to Care
- Quality of Care

Social and economic environment
- Income
- Social Status
- Education

Physical environment
- Home
- Work/School
- Water/Air
- Communities
- Roads

Person's individual characteristics
- Social Support
- Gender
- Genetics

Person's individual behaviors
- Exercise
- Diet
- Tobacco Use
- Alcohol Use
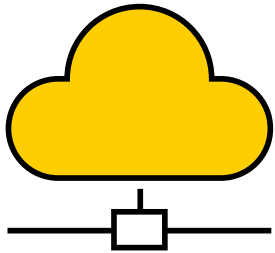- Stress & Mental Health

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The untapped data repository

- The combination of data from the world's leading **scientific and healthcare laboratories**, is the largest untapped repository of health and safety information in the world!

- Data is the biggest driver of innovation in the health and safety

- You have the power to change the world!

- Why aren't we?
  - We are too focused on episodic
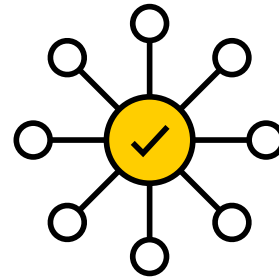 - We are too focused on patient centric

https://newzealand.ai/insights/the-largest-data-repository-in-the-world

The data journey

SaaS

The catalyst for laboratory modernization and the route to modernization and efficiency
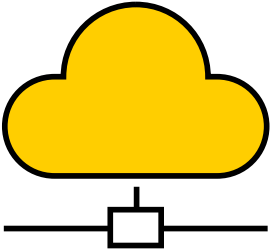
Data Centric

The route to achieving the productivity benefits of automation and GenAI

GenAI and Analytics

Gather actionable insights in real-time, identify trends and patterns to predict outcomes

SaaS, move to the cloud

The cost of legacy

Competitive pressures
- Slow to adapt to change
- Missing commercial opportunities

Financial penalty
- CAPEX to OPEX
- Hardware/software contract consolidation

Technology deficit
- Outdated applications
- Limited maintainability
- Unable to adapt to remote or hybrid working

Cybersecurity threats
- Data breach risks
- Limited capability to resist GenAI threats
- Inability to control access

Retain and transform your data and assets

The benefit of moving to the cloud

Modernization
- Web-based accessibility anywhere
- Access to cutting-edge technologies like GenAI

Optimization
- Reduced operating costs
- Greater value from technology investments

Agility
- Ability to scale
- React quickly to changes in lab services and regulations

Security
- Industry standards including: ISO and SOC
- Granular identity and access management with cutting edge data encryption

Data Centric

- Data…
  - is your most valuable asset, it is the product
  - is a permanent asset that drives your business decisions
  - is a driver of operational excellence
  - is a driver for future health and safety innovation
  - Is a driver of future revenue streams

- Operate a high-precision, high-volume data factory
  - Lean Six-Sigma
  - Kaizen
  - Andon
  - Quality
  - Accuracy

Created with CoPilot Designer powered by DALL-E3

The laboratory community is critical to health

- Healthcare lab data + Scientific lab data = Healthier and Safer communities

- Get to know your public health and environmental laboratory partners

- By working together, we can change the health of the world

- With GenAI you can utilize Healthcare + Scientific data to change the world!

- 100s of publicly available data sets:
  - EPA
  - USGS
  - DOD/DOE
  - USDA
  - FDA
  - CDC
  - CMS
  - CLIA
  - DOT
  - NRC
  - HHS
  - Dozens and dozens more….

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Enabling healthier communities

Future state, move to be a data centric the GenAI-powered laboratory

Realize the benefits of Clinisys Laboratory Solution™ (CLS) on the cloud:

- Drive laboratory modernization, efficiency and productivity

- Harness the benefits GenAI and ML with a data-centric strategy

- Apply advanced security protocols and data access

- Optimize costs and scale with elastic resources

- Greater visibility of costs and hardened security protection

Advanced GenAI and analytics

- Advanced analytics
- Predictive modelling
- Identify trends and patterns

Data integrity and quality

- Automated data validation
- Improved data traceability
- Enhanced data security

Automated tasks

- Automatic data entry
- Robotic sample processing
- Automated report generation

Optimized process

- Single source of truth
- Realtime data sharing
- Collaborative workspaces

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@ Clinisys we are a secure partnership

Clinisys is constantly innovating with our customers to deliver solutions that meet the needs of today whilst anticipating opportunities of tomorrow. By focusing on advancing the capabilities of the modern laboratory, we enable efficient processes to the highest of standards.

45
years of sustained growth and profitability, established in 1979

20%
of clinical laboratories worldwide use our information systems

7
certificates and standards compliance showcasing strict Regulatory and Security policies
- ISO 13485/9001/MDSAP, 27001, 20000
- Cyber Essentials Plus
- Esquema Nacional de Seguridad aka ENS
- SOC 2 Type 2

2012
Clinisys acquired by Roper Technologies (Nasdaq: ROP).

Roper established in 1890
~$7Bn in revenues from market-leading niche businesses

39
countries supporting our customers worldwide across products delivered in 5 languages