Zencode CASE
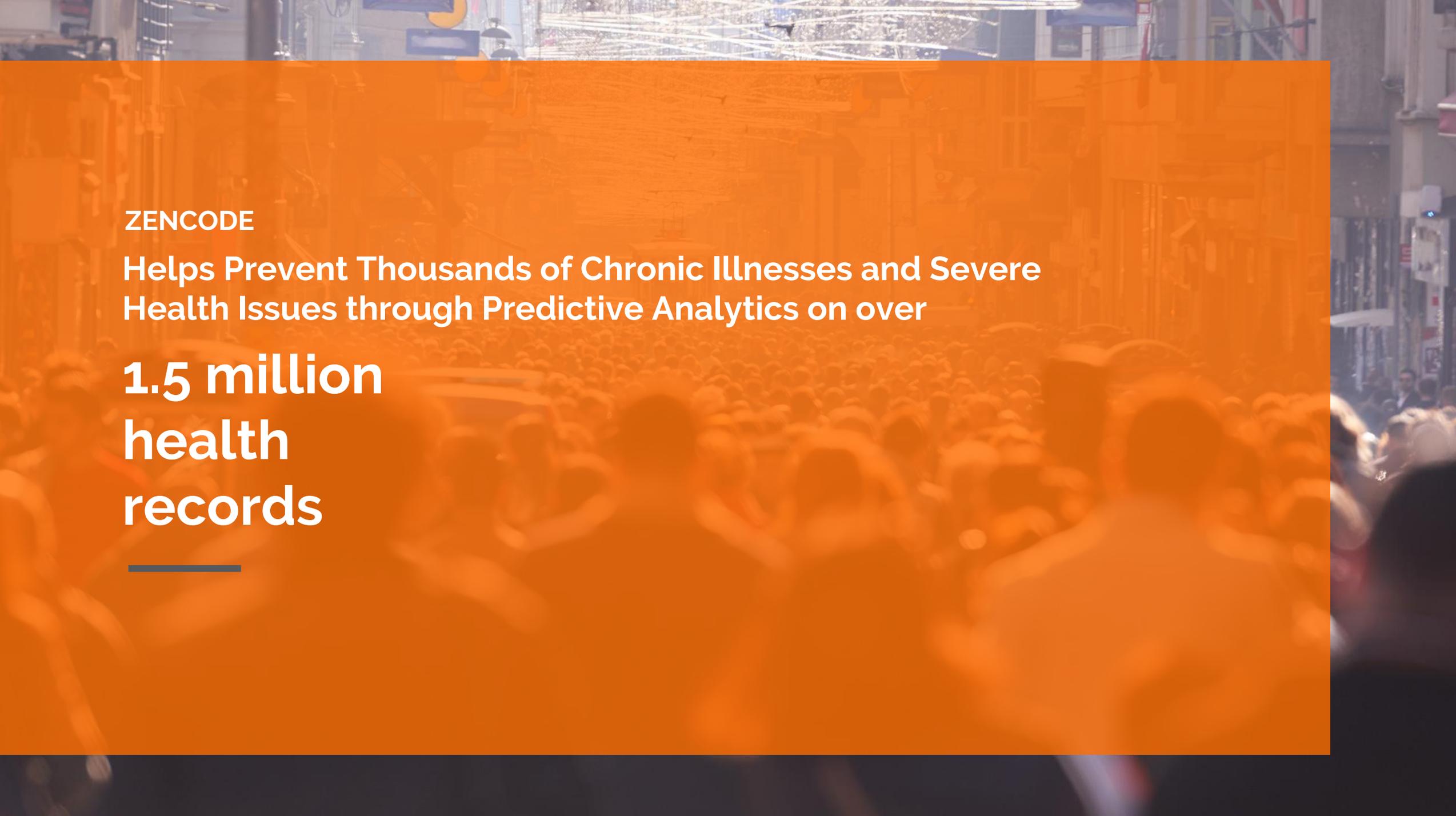**STUDY**

ZENCODE

Helps Prevent Thousands of Chronic Illnesses and Severe Health Issues through Predictive Analytics on over

1.5 million health records

AT A **GLANCE**

Healthcare

Within a country's subsidized healthcare system there was a occurence of later stage detection of chronic illnesses, which increased the cost of healthcare for both the patient and the health ministry. It also decreased the quality of life for its citizens with this late detection and lack of preventive healthcare.

However with Zencode it was able to use Zencode's machine learning expertise to understand large datasets and build predictive models for better nationwide decision making.

CASE STUDY

SERVICES

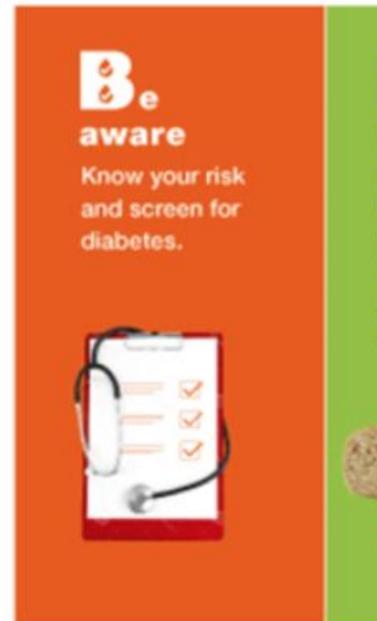Industry : Healthcare
Location : Asia
Employees : 1,000
Services : Machine Learning, Big Data Analytics and
Predictive Modelling

THE **ORGANISATION**

ZENCODE

Established in 2001, the organisation's vision is to build a nation of healthy people

While residents in the country today enjoy good health with high life expectancy and low mortality rates, they want to further improve their health status and continue to enjoy good health as they age.

TO BUILD A NATION OF
HEALTHY PEOPLE

To achieve this, they serve as the main driver for national health promotion and disease prevention programmes. Their goal is to increase the quality and years of healthy life and prevent illness, disability and premature death.

They implement programmes that reach out to the population, specifically children, adults and the elderly.

These programmes include health and dental services for school children, breast and cervical screening, AIDS education, childhood injury prevention, mental health education, myopia prevention, physical activity, smoking control, nutrition, osteoporosis education and workplace health promotion.

New programmes will also be initiated over time to address health concerns among the community.

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THE **CHALLENGE**

Faced with the challenge to increase the quality and years of healthy life, as well as prevent illness, disability and premature death. By 2020, they aim to enable the country to have access to healthy living at the doorstep of every home, school and workplace through the Healthy Living Master Plan, thus making healthy living natural and effortless for the country.

But besides gathering data from multiple sources including hospitals (public and private), polyclinics, general practitioners and other specialist clinics; they have to sort through this medical diagnostic data to recognise symptoms and different syntax from a myriad of different systems. To be able to predict illnesses from this large yet differently given diagnosis was a challenge.

CASE STUDY

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THE
SOLUTION

To use Zencode's Machine Learning capabilities in both Natural Language Processing and Deep Learning.

Standard supervised learning techniques for prediction and prescriptive analytics. Zencode is experienced in classification techniques to find hidden insights from unstructured and structured data points. With an experienced team with proven work in Reinforcement Learning, Zencode built cognitive AI agents that helped sort through the millions of healthcare diagnostic records.

CASE STUDY

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With *Zencode's* Natural Language Processing:

Zencode has expertise in understanding the context of data in different semantics, able to extract feature and model topics using standard algorithms like Latent Dirichlet Allocation (LDA); and using sentiment based analysis – eventually finding the right insights within diagnostic data from hospitals, clinics and private health clinics to give predictive data.

CASE STUDY

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