



Early Warning System

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Why do patients die?

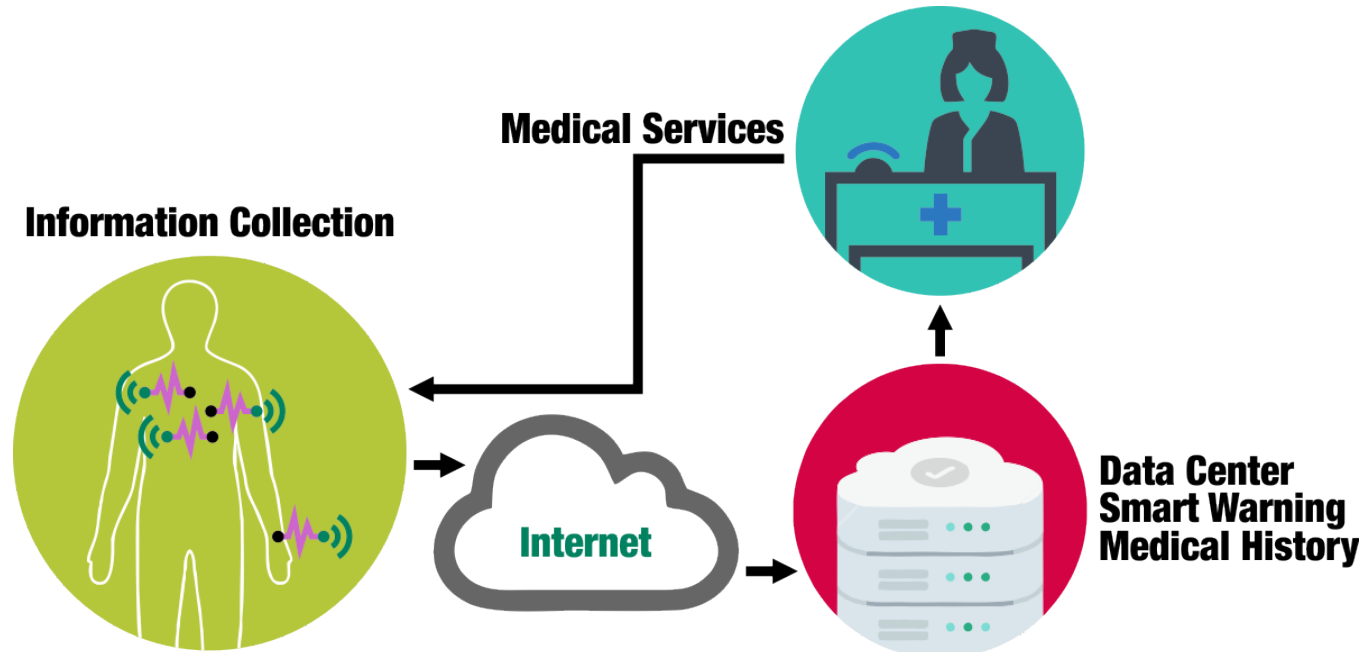
Lack of **Early Detection** and **Early Warning** for:
Acute, Chronic, and Sudden Deteriorating Diseases

- Many signs of deterioration exist as early as **24 hours** prior to serious emergency.
 - Most sudden cardiac death victims have a history of warning symptoms in the **hour** before.
 - Many surgeries fail due to lack of post surgery cares.
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Early detection can reduce costs,
Early warning can save life!

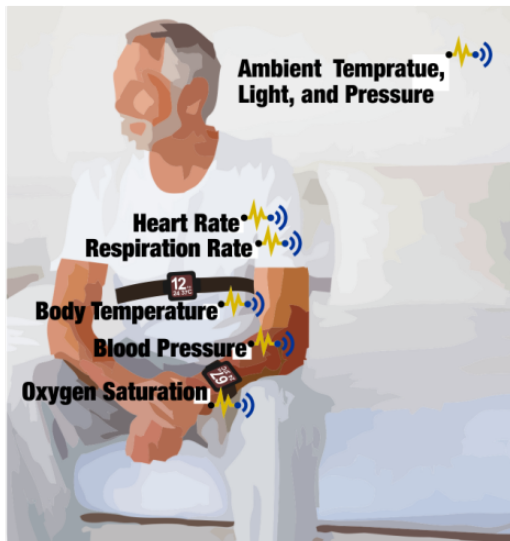
We are Designing:

- **A Smart Early Detection/Early Warning System via a network of IoT-Based Sensors**
- **A Clinical Early Warning System for Smart In-Home Healthcare**



Framework Structure

Sensor Network



e-Health Gateway



- Data Preprocessing
- Data Filtering and Mining

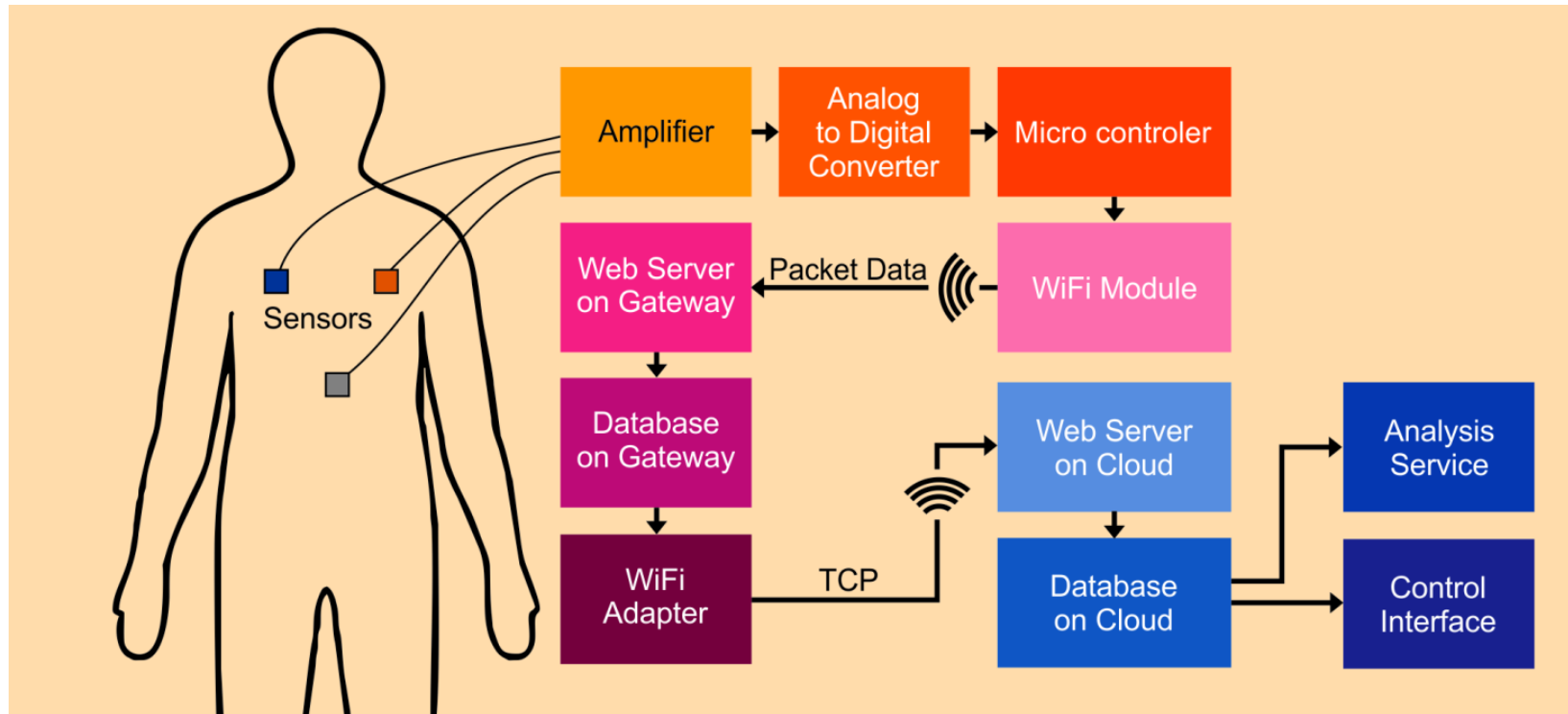
Cloud Data Center



- Data Storage & Analytics
- Decision Making

- **Sensor network:** physiological & environmental signals
- **Smart e-Health gateway:** data aggregation, conversion, mining, and filtering
- **Cloud Data Center:** data storage, data analytics, decision making, etc.

Framework Structure



- **Data Acquisition**
- **Data Transformation & Aggregation**
- **Data Analysis & Visualization**