# EVIDENCE-INFORMED DECISION-MAKING IN HEALTHCARE MANAGEMENT IN SLOVENIA

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# MANY EXAMPLES OF HIGH QUALITY PATIENT CARE



**LJUBHOSPIC**
HVALEŽNI ZA ŽIVLJENJE

**Slovensko društvo hospic**
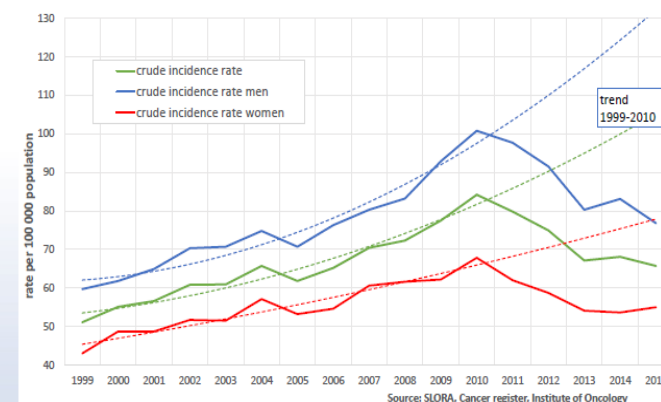**Slovenian Hospice Association**

**Inštitut Antona TrstenjakA**

Skupnost socialnih zavodov Slovenije

E-care Service

Svit

COLORECTAL CANCER INCIDENCE IN SLOVENIA

crude incidence rate
crude incidence rate men
crude incidence rate women

trend 1999-2010

Source: SLORA, Cancer register, Institute of Oncology

NIJZ National Institute of Public Health

**ENVIRONMENTAL PROTECTION**

univerzitetni klinični center ljubljana
University Medical Centre Ljubljana
Occupational Safety and Health Service

univerzitetni klinični center ljubljana
University Medical Centre Ljubljana

**NIJZ** Nacionalni inštitut za javno zdravje

**NATIONAL PROGRAMME ON PREVENTIVE HEALTHCARE HEALTH PROMOTION CENTRES**

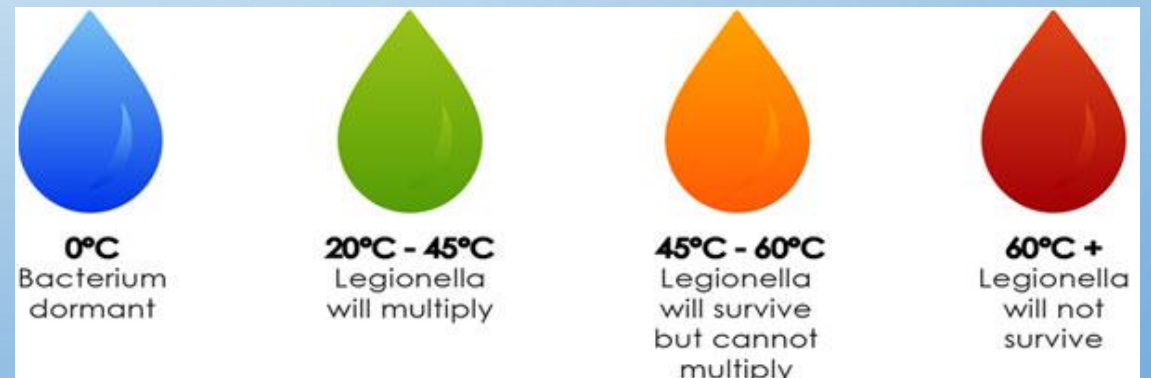# FOUR EXAMPLES OF EXCELLENCE IN EVIDENCE BASED DECISION MAKING

- In-house trials, or novel research and partnerships

- Research, data and information leading to action

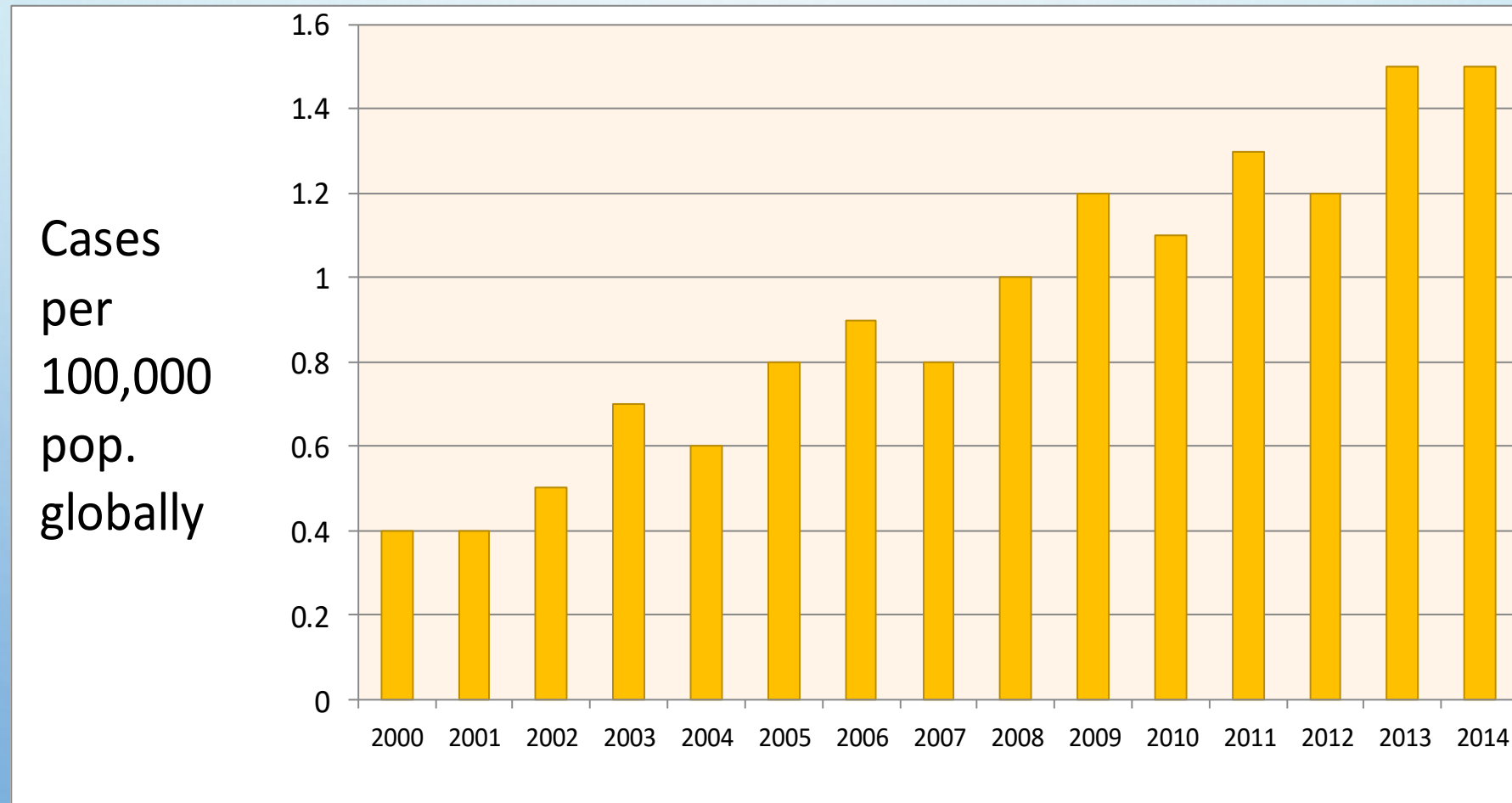- Implementation reinforces and expands the benefits in trial

- Locations-

1) University Medical Centre Ljubljana (UMCL)  Technical Services Dept; Legionnaire's Disease prevention

2) UMCL Emergency Response; e-devices improving major emergency response

3) Psychiatric Hospital Idrja (and Fuzine Nursing Home); community integrated mental health and dementia care

4) UMCL Department of Neurology; early diagnosis of Alzheimer's Disease

# 1. PREVENTION OF HOSPITAL BORNE INFECTION – LEGIONELLA CONTROL

- Legionnaire's Disease is an infection of the respiratory system

- Potentially fatal to people who are immunocompromised, elderly, diabetic, COPD, CVD

- Susceptibility > tobacco use and > alcohol use

- Exists naturally in the environment and propagates in stagnant water

- Air borne vectors



**0°C** Bacterium dormant

**20°C - 45°C** Legionella will multiply

**45°C - 60°C** Legionella will survive but cannot multiply

**60°C +** Legionella will not survive

# GROWING GLOBAL PROBLEM & A MAJOR THREAT TO HEALTHCARE ORGANISATIONS!



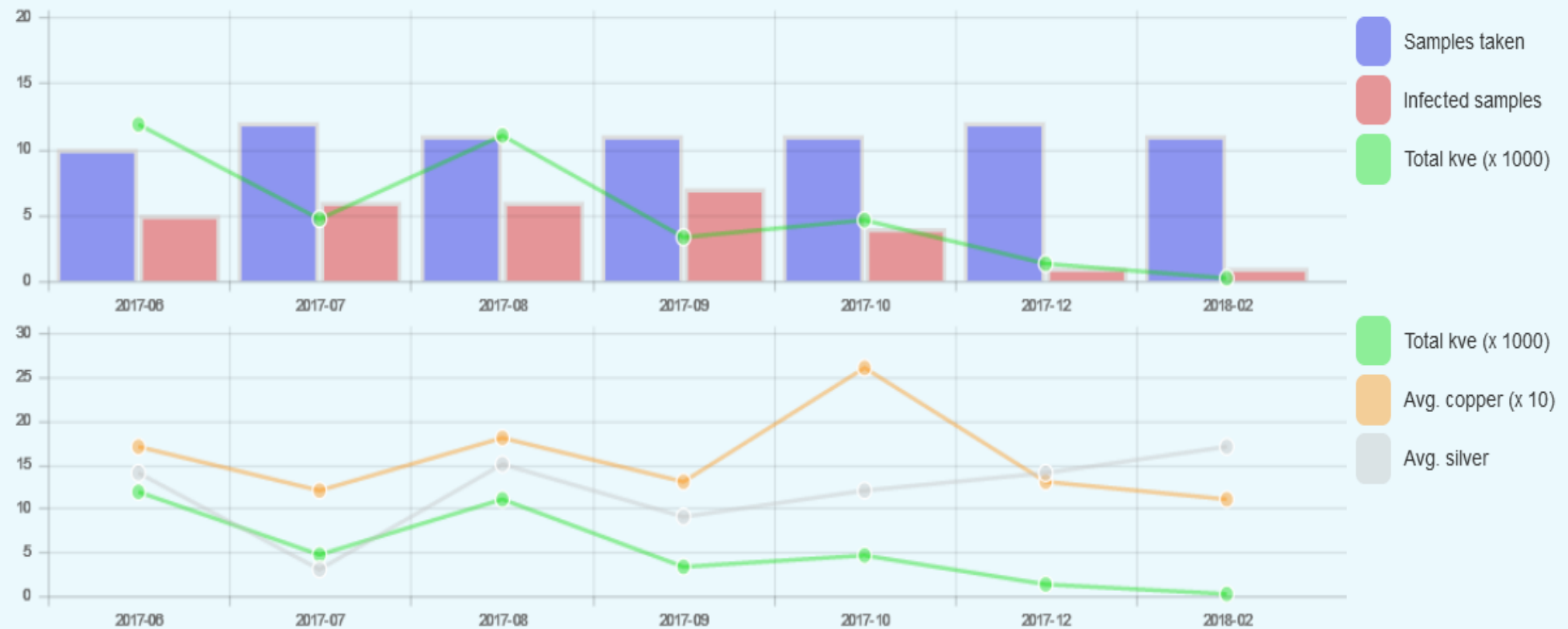Cases per 100,000 pop. globally

# THREE POSSIBLE APPROACHES

1) Point of use solutions

2) Point of entry solutions

**3) Systemic / whole system treatment, e.g., complex water distribution systems such as hospitals, colleges, hotels**

# EVIDENCE BASED ACTION – UMCL TRIAL

- Literature review revealed copper-silver ionisation as best theoretical solution

- 2 buildings in UMC Ljubljana selected where legionella bacteria were present in high counts

- June 2017 trial system installed at drinking water intake

- Samples taken from several problem locations every 5 weeks

- Large reduction in Legionella count in first month

- Transient spike in mid trial due to breakdown and release of biofilm in the pipework

- **February 2018 just one sample point scored only 200 CFU/1000 mL**

- **Final sampling yielded bacteria counts <u>at or near zero</u>**

- **2019 expansion to solve specific problem areas to improve drinking water safety**
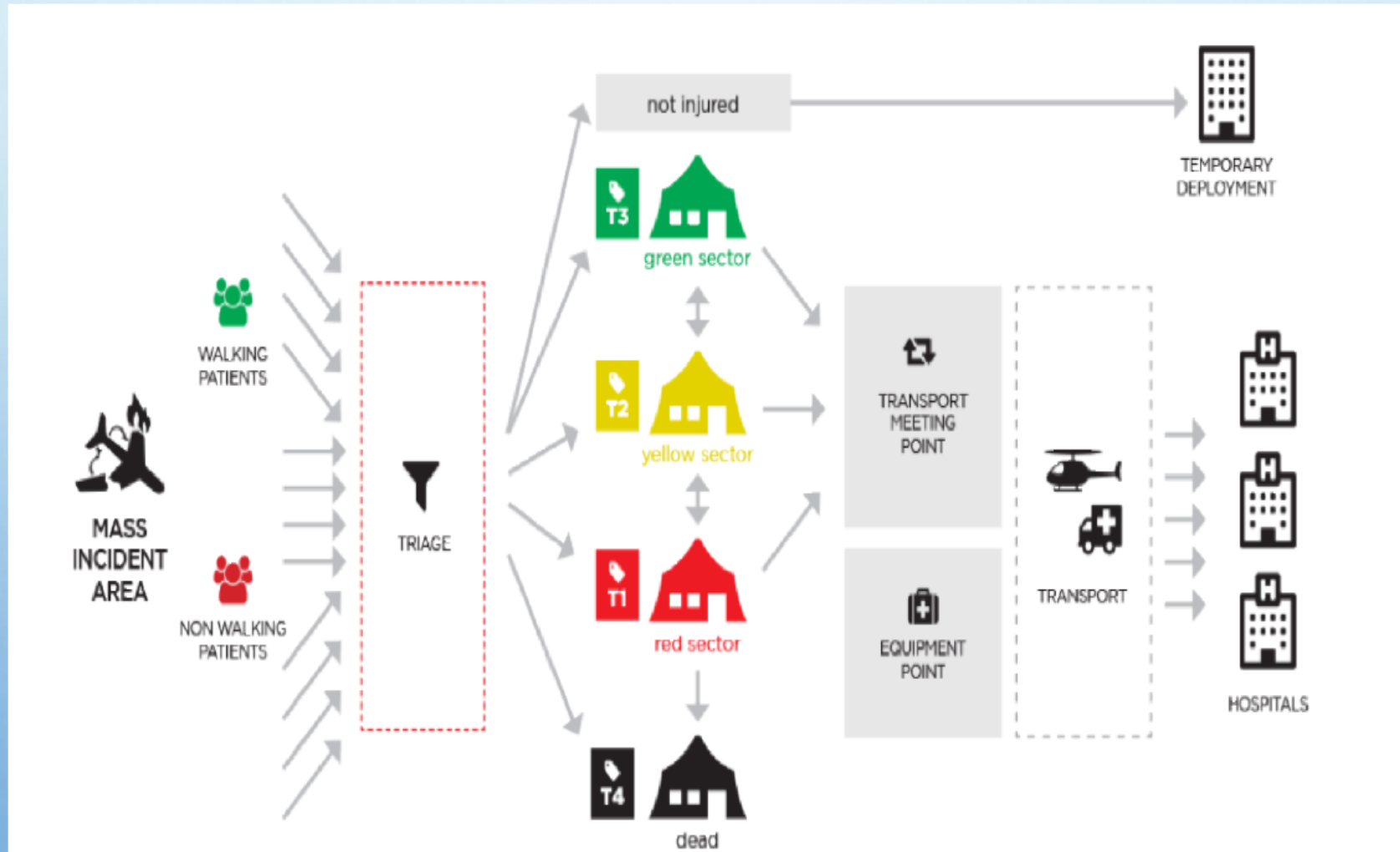
# RESULTS

# 2. IMPROVING MAJOR EMERGENCY EVENT OUTCOMES BY DEPLOYING REAL-TIME E-DEVICES

- TRADITIONAL PAPER BASED RECORDS –

    single copy

    interpretation error

    not real time

- VOICE COMMUNICATION –

    non-visual

    interpretation error

    transient

# ACCURATE REAL-TIME DATA AVAILABLE AT EVERY LOCATION IN THE FIELD OF OPERATIONS

# 3. COMMUNITY INTEGRATED MENTAL HEALTHCARE IDRIJA (& FUZINE)

HOPE Slovenia 2019. Dalton, Kink, Saiz-LLamosas.

Working together for the benefit of a patient and his family

Community Mental Health Care

Social Services

Secondary Mental Health Care

Integrated Community Mental Health Care

Voluntary and Independent Sector Organizations Services

Primary Mental Health Care

**Patients;**

- 369 participants

**Team;**

- Psychiatrist
- Psychologist x2
- Nurse x2
- Social Worker
- Occ Therapist

# RESULTS

The average number of hospitalizations per patient decreased to below 15%

More independent lifestyle

Increased life satisfaction

Reduction of psychopathology indicators

Patients are satisfied with the delivery of care in their home

# 4. DEPARTMENT OF NEUROLOGY – EARLY DIAGNOSIS & TREATMENT OF DEMENTIA



"Models of Patient Engagement for Alzheimer's Disease"

Research conducted and evidence gathered across partner organisations in Slovenia, Spain, Germany, Netherlands, and Sweden

MOPEAD;

In clinical practice, the diagnosis of Alzheimer's disease (AD) is still occurring late in the disease process. This creates a barrier to access available treatments and support services, as well as the opportunity to enrol in clinical trials at early stages of the disease.

**Aims to respond to the urgency of finding interventions to halt AD by stimulating a faster recruitment of patients into clinical trials.**
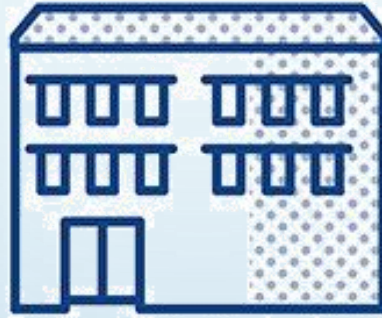
# HOW TO TARGET ALZHEIMER DISEASE THERAPIES?

- ALZHEIMER'S DISEASE IS PROGRESSIVE OVER A LONG PERIOD OF TIME, 4 TO 8, EVEN 20 YEARS

- CURRENT, IN-DEVELOPMENT AND FUTURE THERAPIES TARGET DIFFERENT DISEASE STAGES ESPECIALLY EARLY STAGE

- VARIOUS STAGING CATEGORISATIONS BUT BROADLY THREE;

  *(SUB-CLINICAL)*

  1. MILD (EARLY)

  2. MODERATE (MIDDLE)

  3. SEVERE (LATE)

# FOUR DIAGNOSTIC MODELS DEVELOPED

1 Neuropsychological **online test**.

2 Neuropsychological **test** conducted at a **memory clinic**.

3 Neuropsychological **test** carried out by **general practitioners**.

4 Neuropsychological **test** given to **patients** diagnosed with type 2 diabetes.

MOPEAD

Mind your memory, mind yourself

# ADD LIFE TO YOUR DAYS, NOT JUST DAYS TO YOUR LIFE!

# SO LET US LIVE WITH