ICOHIRP
international centre for oral health inequalities research & policy
a global network committed to promoting oral health equity

International Centre for Oral Health Inequalities Research and Policy (ICOHIRP)
Launch Conference
In Partnership with Public Health England

FUTURE RESEARCH AGENDA ON ORAL HEALTH INEQUALITIES

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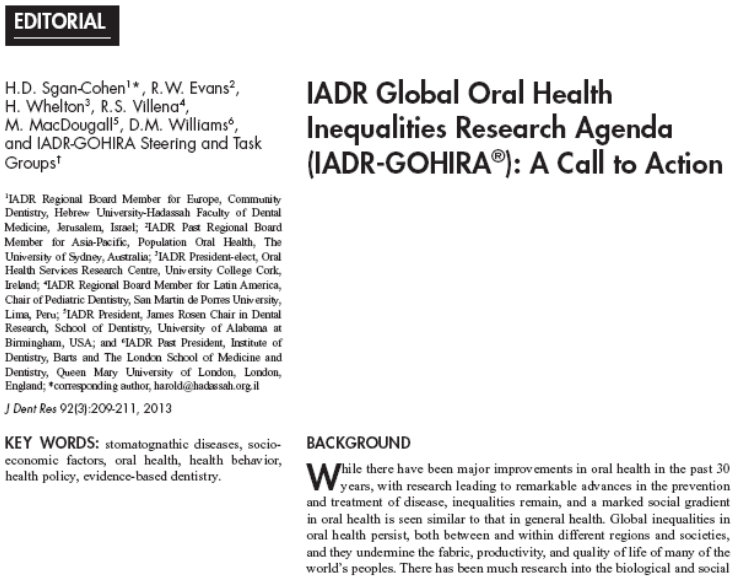
LECTURE OUTLINE

1. Background: from GOHIRA® onwards
2. Phases of oral health inequality research
3. Examples of inequalities
4. How to measure and create goals for reducing end even eliminating inequality?
5. What type of research is needed?



EDITORIAL

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IADR Global Oral Health Inequalities Research Agenda (IADR-GOHIRA®): A Call to Action

BACKGROUND

While there have been major improvements in oral health in the past 30 years, with research leading to remarkable advances in the prevention and treatment of disease, inequalities remain, and a marked social gradient in oral health is seen similar to that in general health. Global inequalities in oral health persist, both between and within different regions and societies, and they undermine the fabric, productivity, and quality of life of many of the world's peoples. There has been much research into the biological and social

1. GOHIRA® and Background

"There has been much research into the biological and social determinants of general and oral health, including the influence of psychological, social, environmental, economic, cultural, and political factors on health outcomes (Marmot and Bell, 2011), but this has not led to the improvements that could be expected."

Sgan-Cohen HD, Evans RW, Whelton H, Villena RS, MacDougal M, Williams DM. The IADR Global Oral Health Inequalities Research Agenda (IADR-GOHIRA®): A Call to Action. JDR 92:209-2011, 2013

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reduce the overall burden of disease
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2. Phases of oral health inequality research

Weyant RJ, Sgan-Cohen HD, Sheiham A.
The Research Agenda, ICOHIRP Monograph

Kilbourne et al. (2005) propose that health inequalities research occurs in three sequential phases:

Phase One: *Detection*.

- Definition of vulnerable population groups
- Effective measurement of inequalities
- Utilization of existing data resources

Phase two: Understanding.

- The role of genomic, molecular influences, biological and non-biological factor interactions
- Social and economic conditions have large and independent effects on health status
- Members of vulnerable communities should be trained and become fully engaged and integrated as contributing members of the research infrastructure?
- The structural and financing schemes that lead to health inequalities and what policy changes are needed to alleviate the problem?

Phase Three: *Reducing*.

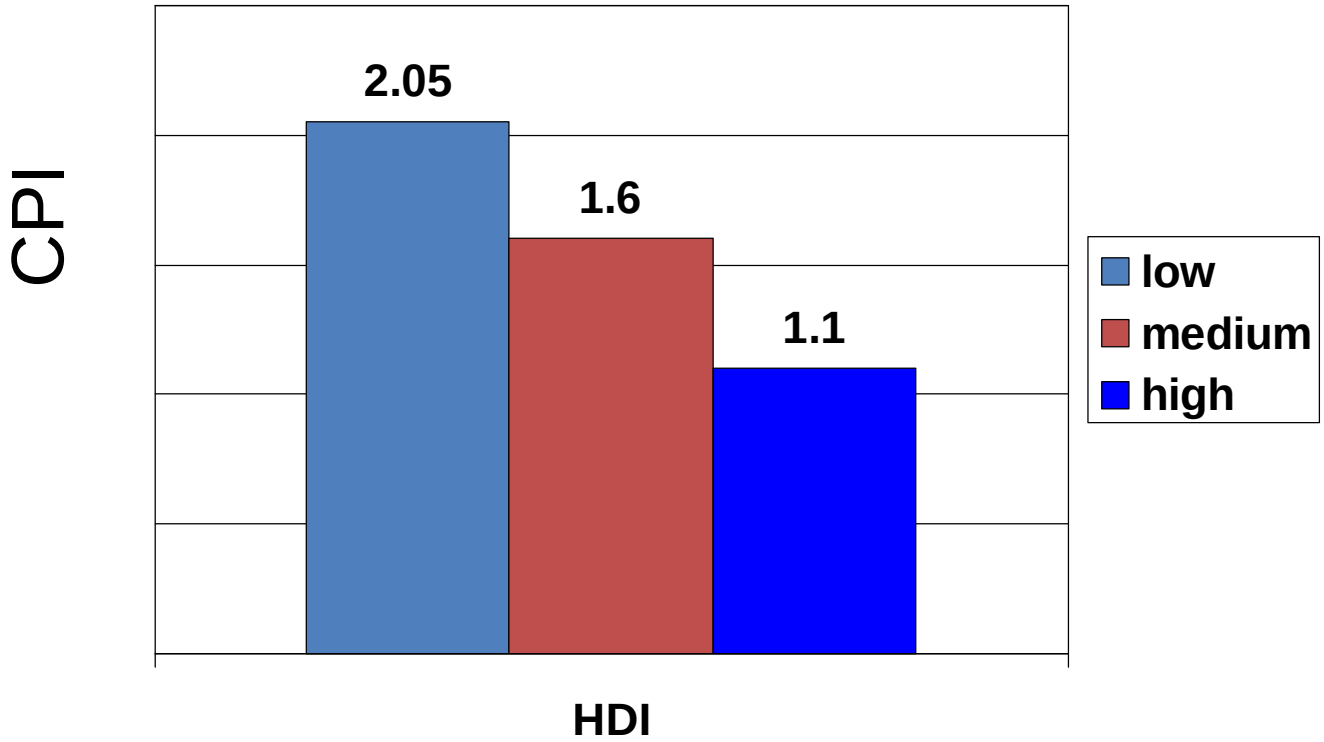
Phases one and two were tilted more toward the *science* of development of inequalities, this phase acknowledges research on intervention on *policy* and *practice* issues:

- What are the interventions that are achievable, socially acceptable, scalable, and cost-effective?
- What approaches can be used to improve provider practice towards delivery of appropriate care to all patients?
- How can policy changes be implemented?
- What strategies will result in substantial, sustainable and cost-effective changes that move the community toward a health promoting environment?

3. Examples of inequalities

Periodontal disease

CPI scores 3&4 among 35-44 year olds in 44 countries

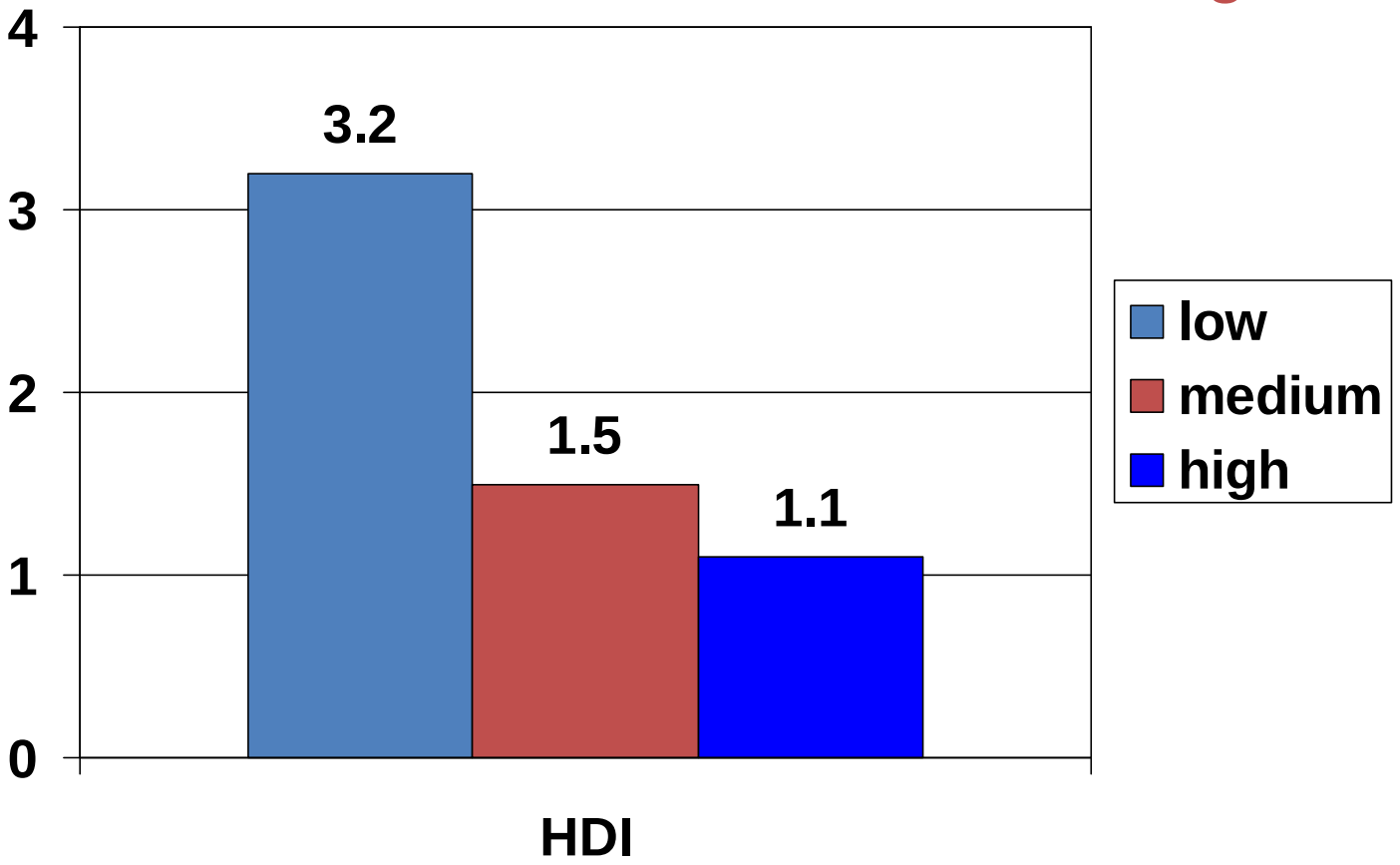


Human Development Index (HDI) measures the average achievements in a country including: a long and healthy life, knowledge and a decent standard of living.

Hobdell, MH, Oliviera ER, Bautista R, Myburgh NG, Lalloo R, Narendran S, Johnson NW. Oral diseases and socio-economic status (SES). Brit Dent J 2003;194:91-6.

Oral cancer

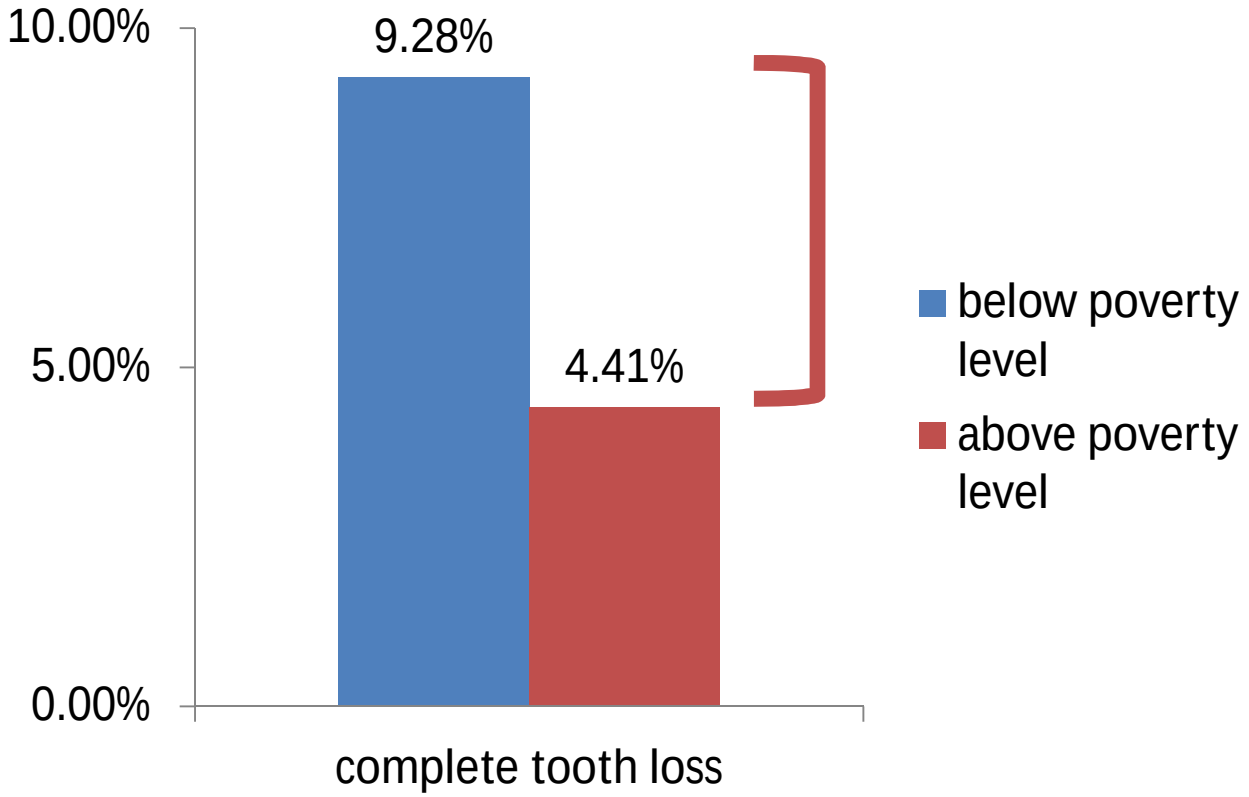
Median age standardized oral cancer mortality rates for males and females for 172 countries according to HDI.



Hobdell, MH, Oliviera ER, Bautista R, Myburgh NG, Lalloo R, Narendran S, Johnson NW. Oral diseases and socio-economic status (SES). Brit Dent J 2003;194:91-6.

Complete tooth loss

USA adults, aged 20-64 years



Dye BA, et al. Trends in oral health status: United States, 1988-1994 and 1994-2004. National Center for Health Statistics). Vital Health Stat 11: 1-92, 2007.

4. How to measure and create goals for eliminating and reducing oral health inequality?

Oral health surveillance

In 1979 the most important goal ever to be formulated for global oral health was announced by WHO.

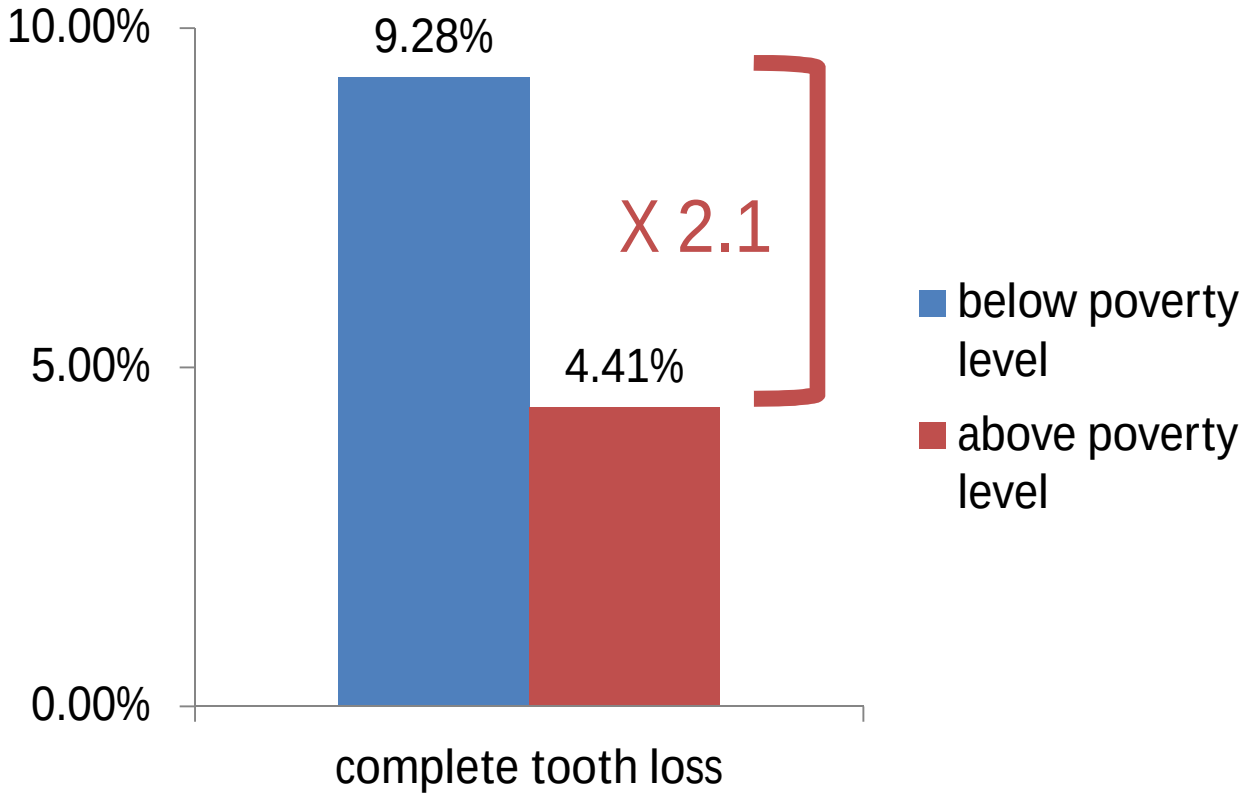
By the year 2000, the global average for dental caries was to be no more than 3 DMFT at 12 years of age.

At the World Health Assembly in 1979, this declaration was unanimously allocated as being the overriding priority for WHO.

In 1983 oral health was declared as part of the Strategy for Health for All (WHA36.14) and in 1989 the Organization endorsed the promotion of oral health as an integral part of Health for All by the year 2000 (WHA42.39).

Complete tooth loss

USA adults, aged 20-64 years



Dye BA, et al. Trends in oral health status: United States, 1988-1994 and 1994-2004. National Center for Health Statistics). Vital Health Stat 11: 1-92, 2007.

There are two ways to completely “eliminate” inequalities:

Complete tooth loss

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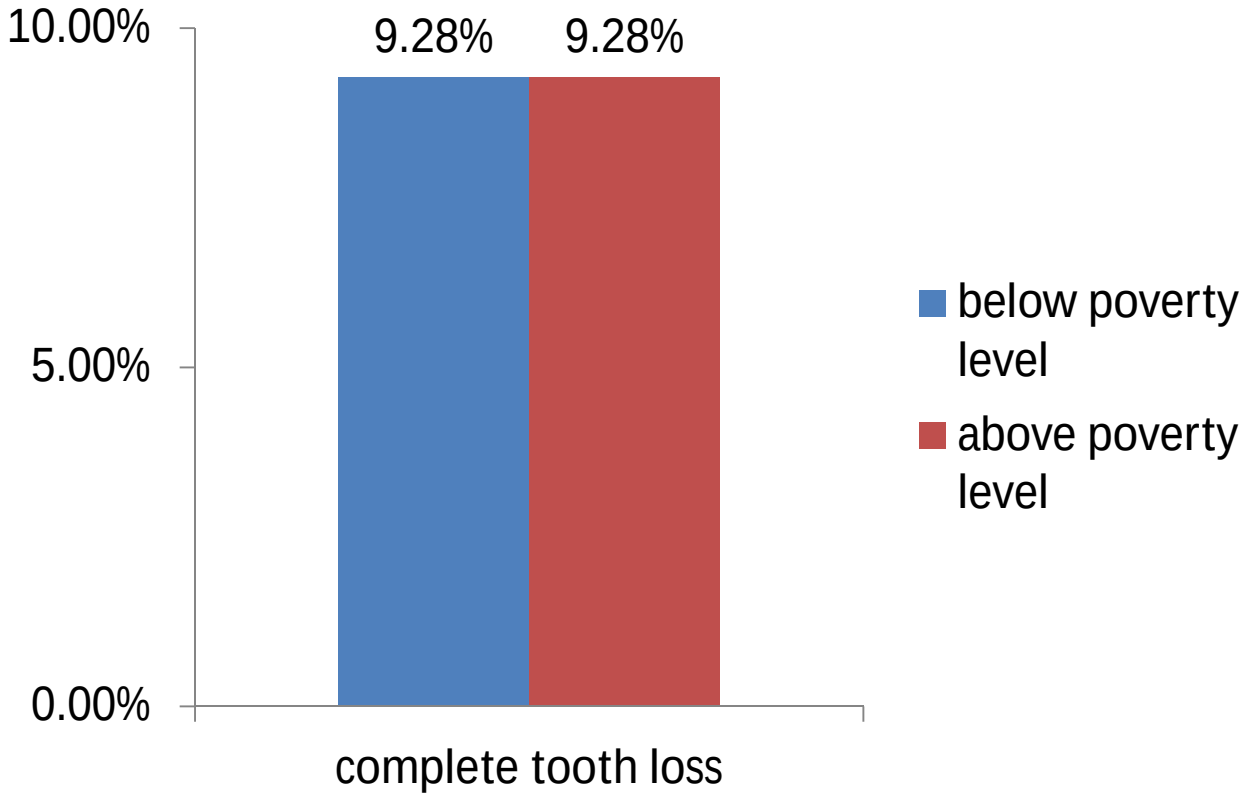

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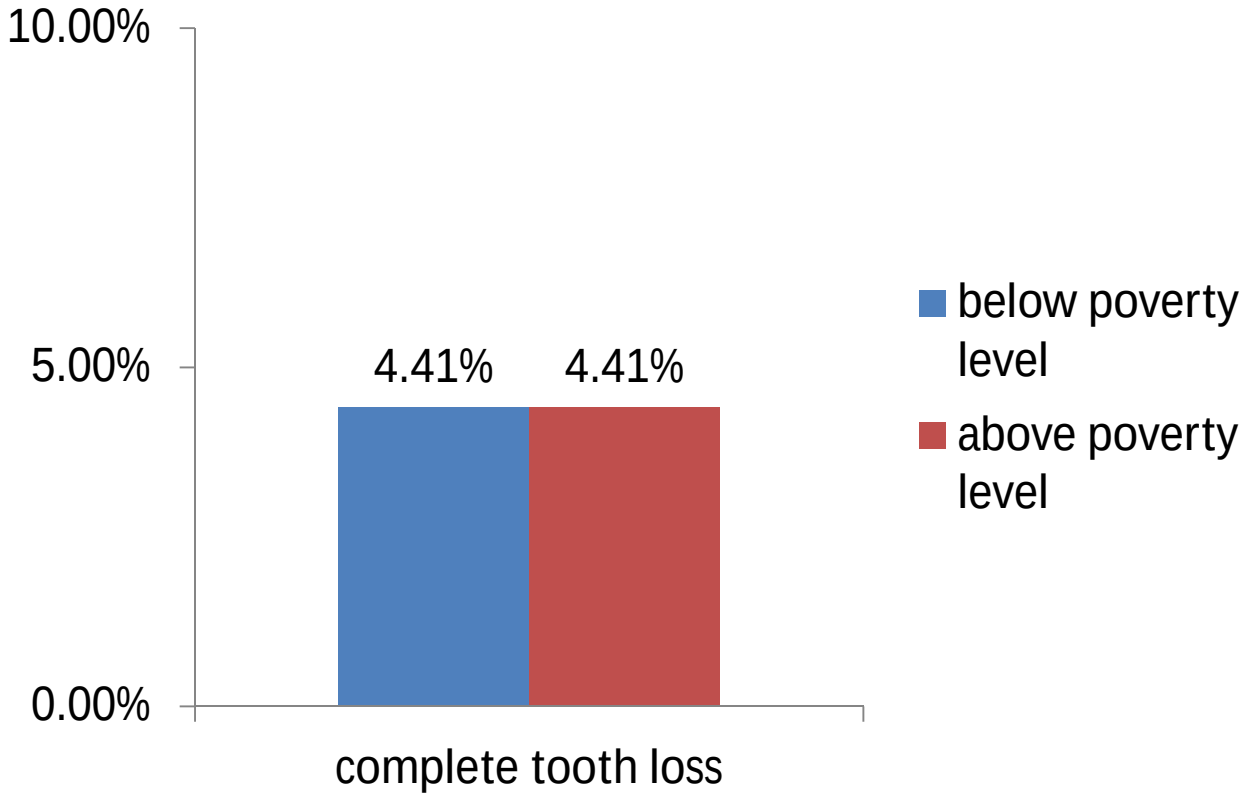


The third way is to reduce inequalities:

A standardized, universal and comparable measuring tool for inequalities is clearly called for. We could start with something quite simple (echoing the 1979 WHO document). This could be the ratio of the prevalence among those above the poverty line compared to those below. Once this ratio is calculated, the next step would be to establish a goal of reduction or even elimination of differences. For example, a goal could be set, to reduce inequalities, by 30%, within the next decade. This goal could be adapted and modified for different countries.

(This was discussed and suggested at the PER-IADR Dubrovnik conference GOHIRN workshop in 2014
and is incorporated in the present ICOHIRP Monograph)

5. What type of research is needed?

Levels of Evidence

(Oxford Centre for Evidence-Based Medicine – May 2001)

Level	Therapy/Prevention, Aetiology/Harm
1a	systematic review of RCTs
1b	Individual RCT
2a	systematic review of cohort studies
2b	Individual cohort study
3a	systematic review of case-control studies
3b	Individual Case-Control Study
4	Case-series
5	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles"

Community program trials

- Convey the RCT concept to a more real-life level.
- They ask: “Is the program effective in practice in the community?”
- A community program trial needs to be set up *a priori* as a test and a measurable demonstration.
- A control population is imperative.

Controlling in community program trials

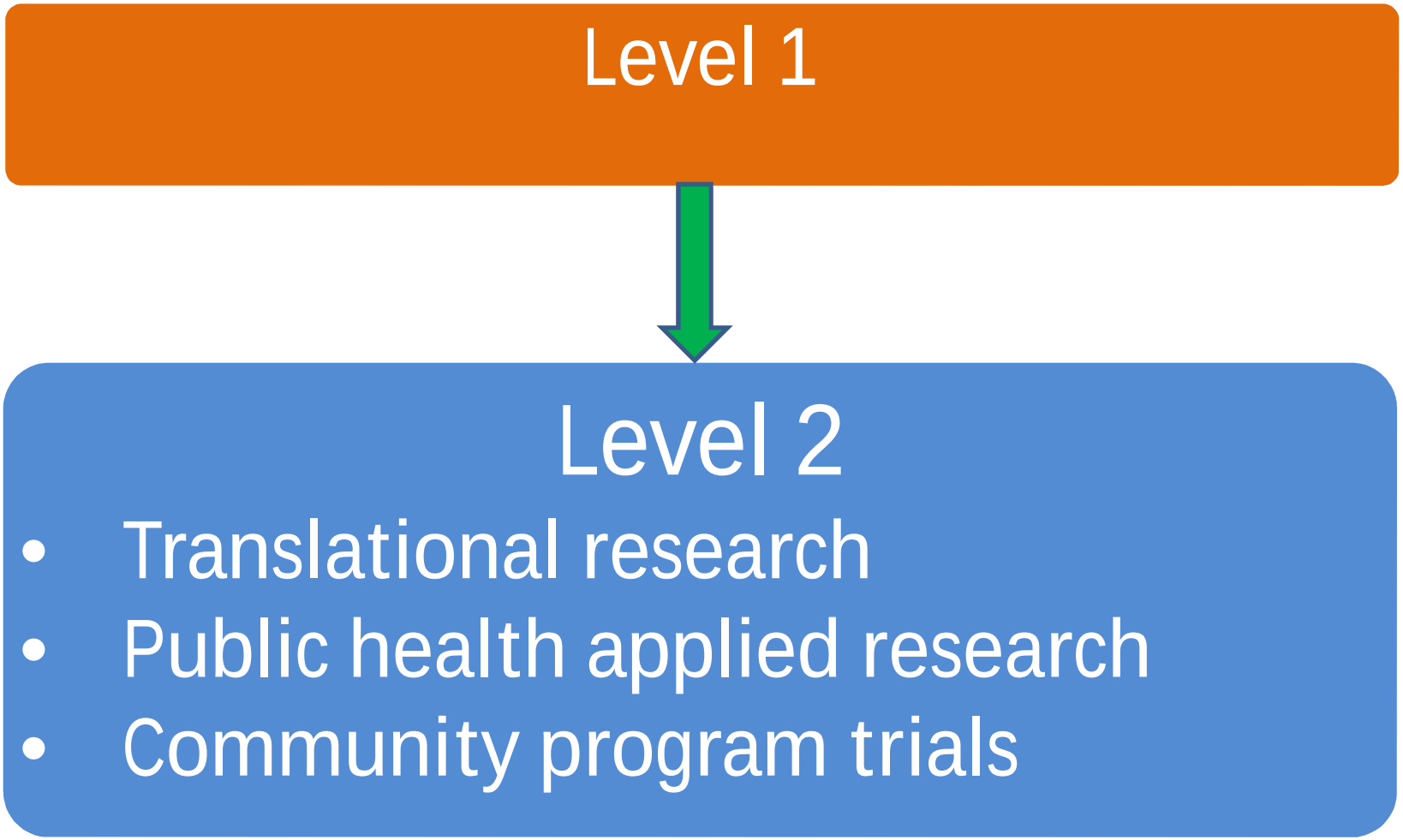
- Parallel groups: several community programs are studied prospectively.
- Externally controlled: data from other sources.
- Self-controlled: before – after.
- Continued *vs.* discontinued programs.
- Abundant confounding and ethical questions.

Three Levels of Research

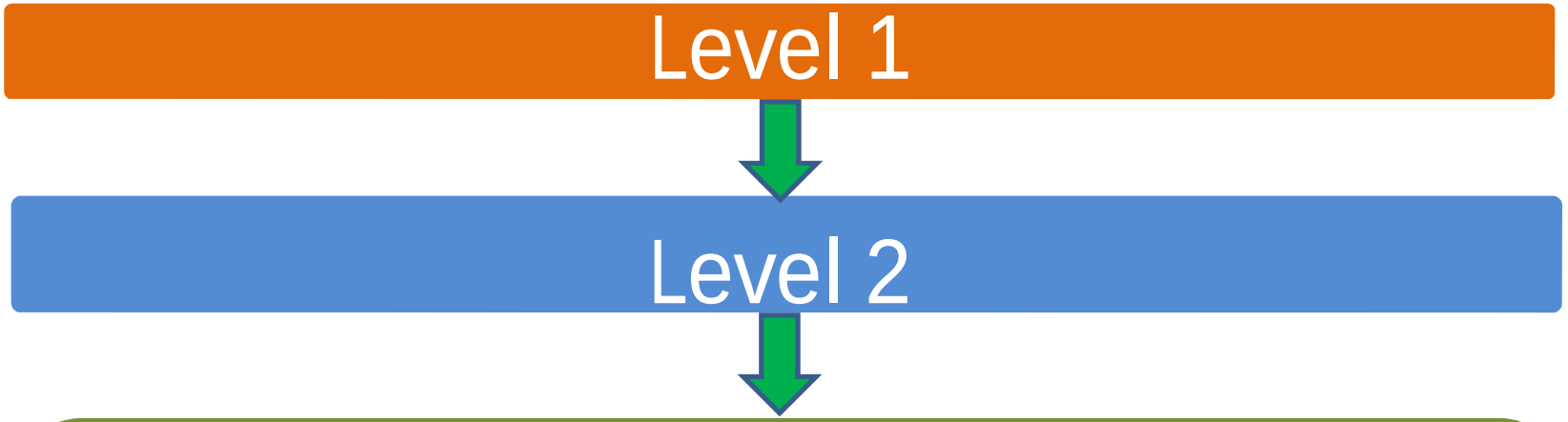
Level 1

- RCTs, analytical surveys, etc.
- The basis for Evidence Based Dentistry
- Very similar to basic science “laboratory-like” settings

Three Levels of Research



Three Levels of Research



Level 3

- Research with the potential to reduce and even eliminate inequalities
- Multi-centered systematic reviews of community program trials
- Establishing a consensual global policy

Thank you