

# How to define essential oral health care? Findings from the EU PRUDENT project

#### **Prof Chris Vernazza**

Head of School, Dental Sciences

**Professor of Oral Health Services** 

Honorary Consultant Paediatric Dentistry

# **Dr Ruth Waitzberg**

Research Fellow,

Technische Universitat Berlin

**European Observatory Health** 

Systems and Policy





## **Potential Conflicts**

#### Trustee of:

- Alliance for a cavity free future
- British Society of Paediatric Dentistry
- Oral and Dental Research Trust

#### Consultancy work

- NHS England
- Haleon

# **Funding**

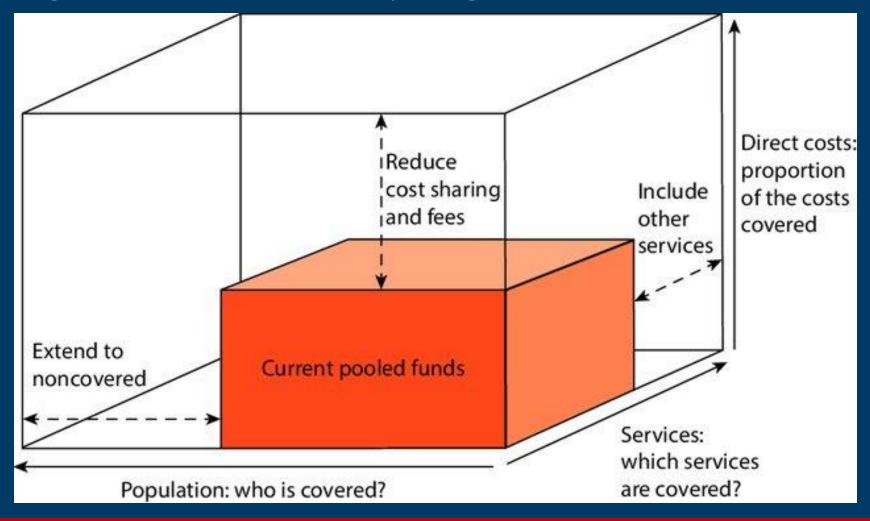
The views expressed are those of the author(s) and not necessarily those of the funders.

Horizon Europe (with UKRI)

# **Universal Health Coverage?**



## Never enough resource to do everything (SCARCITY)



World Health
Organisation 2001

# Resource allocation





Historical

Decibel

Needs assessment

Core service

Economic evaluation

Opportunit Cost
Multiple Spiectives

Integer programming Multi-criteria decision analysis

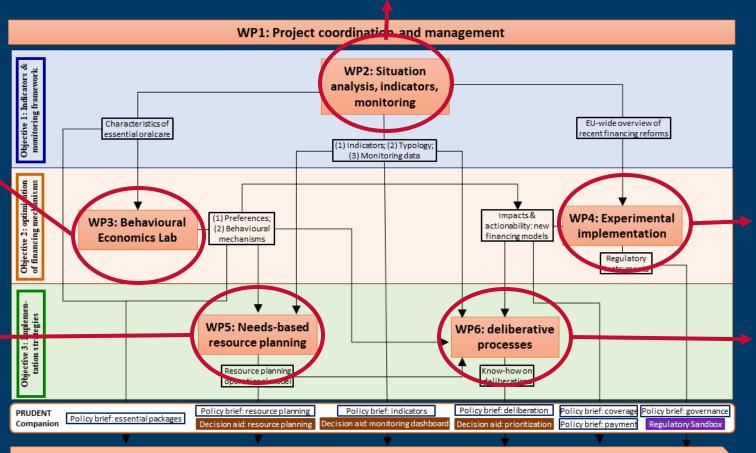
## **PRUDENT Project**



# EU Horizon funded €5.3m, 2023-2028, Lead: Stefan Listl, Heidelberg Today's presentation

Patient and professional values

Cost effectiveness models



Incentives experiment

Resource allocation

WP7: Knowledge transfer

# **Programme Budgeting Marginal Analysis**



- 1. Establish appropriate advisory panel
- 2. Define scope of the exercise

#### PRAGMATIC APPROACH

- 3. Compile the programme budget
- 4. Determine criteria for decision-making Identify options:
  - (a) growth
  - (b) resource release operational efficiencies
  - (c) resource release from scaling back/ ceasing
- 6. Evaluate investments and disinvestments
- 7. Ensure recommendations valid and robust

Peacock et al. British Medical Journal 2006

#### Some of the key questions...



What the objectives of the service are

Which services/groups should we provide to meet the objectives with limited resource

What is the most efficient way of providing the selected services

#### **DEPEND** project



#### Interviews with public and professionals

Very varied views on:

What NHS Dental should be for

Who should be covered

Means tested?

Pregnant?

Chronic health condition?

Elderly?

What should be covered

Clinically necessary?

Psycho-social benefit?

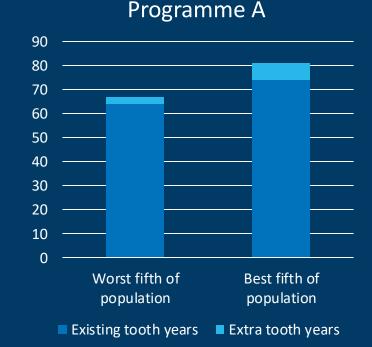
Aesthetic?

Complex?

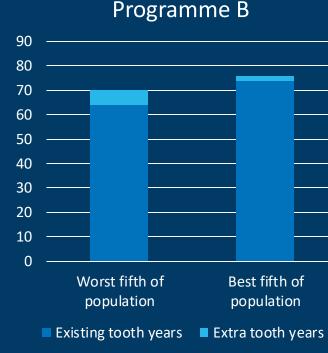


Katherine Carr, NIHR DRF

#### Large scale public survey (NATCEN)



Total health improvement = **10 years** Inequality gap **increased** by 4 years



Total health improvement = **8 years** Inequality gap **decreased** by 4 years

Views pretty much split equally (slight favouring of health maximisation)

Different to general health!

#### RAINDROP project



Project to look at resource allocation across NHS dentistry in England

Whole process called *Programme Budgeting and Marginal Analysis* 

First step is to agree and weight objectives of an ideal service

Undertaken by a **stakeholder** panel with wider input

Domain	Weight (%)	
Benefit	22.8	
Preventative	13.9	
Cost-benefit	12.8	
Inequality	11.8	
Safe/acceptable	9.1	
Cost	8.2	
Workforce	7.2	
Patient responsibility	5.8	
Innovative	2.9	
Politically acceptable	2.8	
Aesthetics	2.7	

#### **RAINDROP Part 2**



Current services to stop/reduce

Recommend for funding **Service** Estimated cost Score (+2 to -2) **Moderate need orthodontics** Disinvest £44m -0.21**Adult orthodontics** Disinvest £11m -0.18 **Scale and Polish** £174m -0.04Disinvest **Root canal on molars** Continue £190m -0.09 Jaw surgery £20m 0.03 Continue **Moderate + severe orthodontics** Continue £99m 0.16 Out of hours pain Continue £54m 0.81

New services to start/increase

Homeless care	£190m	-0.02	No invest
СВТ	£824m	0.09	No invest
Preventative sessions	£659m	0.44	No invest
New dental places	£135m	0.23	Invest
Care home dentistry	£13m	0.56	Invest
↑ Public health in local authorities	£5m	0.57	Invest
NHS 111 – Practice link	£2m	0.72	Invest

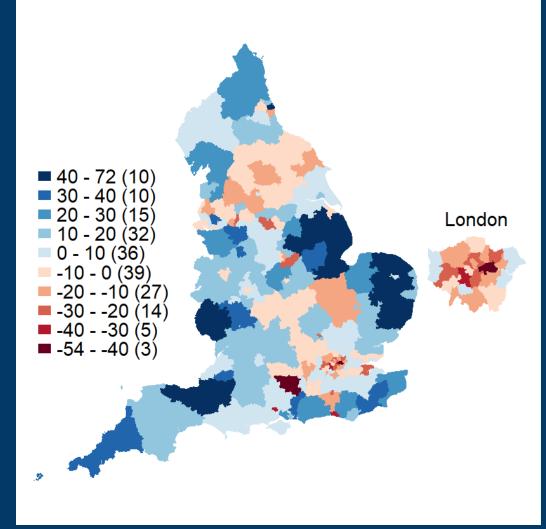
#### **DIAMOND Project**



Funding for NHS dental services mainly based on historic 2004-5 activity of each practice

Funding for **other NHS services** (e.g. GP) based on formulae that **adjust for need/supply/cost base.** 

DIAMOND investigated how a **dental** weighted capitation formula could look





#### Some of the key questions...



What the objectives of the service are

Which services/groups should we provide to meet the objectives with limited resource

What is the most efficient way of providing the selected services

#### Value = Utility



# The meaning of life... is to maximise UTILITY Utility = Measure of value or preference

#### **Health State Utility**

Value between 0 and 1

Can ask direct

Can attach values to different Quality of Life scale scores

Child caries specific utility measure developed – CARIES-QC-U



Full health



Helen Rogers,
NIHR DRF (Sheffield)
NIHR DSE

#### **Cost Benefit Analyses**





Strategies for managing compromised first permanent molars in children.

Restoring or full gap closure highly valued

Partial gap or prosthetic replacement valued less

Modelling - extraction of the tooth between 7-10 was the most efficient option.

Greig Taylor NIHR DRF Monetary valuation of benefit
(Contingent Valuation
or Discrete Choice Experiments)

Undertaken in many areas:
Community Water Fluoridation
Fluoride varnish
Amalgam versus composite fillings in molars

#### Some of the key questions...



What the objectives of the service are

Which services/groups should we provide to meet the objectives with limited resource

What is the most efficient way of providing the selected services