Workshop objectives

- Outline principles of oral health promotion

- Develop examples of good practice

- Review principles of health promotion evaluation

- Develop evaluation plans for oral health programs

Key Features of Dental Programs

- Treatment dominated

- Delivered by health professionals

- Targeted on priority groups

  – Different ages

  – High risk groups

  – Social and political needs

Key Features (2)

- Individual focus - screening

- Prevention - mainly clinically based

- Educational element - knowledge change

CLASSIC HIGH RISK APPROACH

Effectiveness Reviews of DHE

- Brown (1994)

- Schou and Locker (1994)

- Kay and Locker (1996)

- Sprod, Anderson and Treasure (1996)

- Kay and Locker (1998)

- Department of Human Services (1999)

- Watt and Marinho (2005)

Limitations with health education

- Ineffective in reducing inequalities

- Individualist – ignores determinants of health

- Costly - high professional input

- Non sustainable

- Duplication of effort

- Theoretically flawed

- Public apathy and resistance

Public health agenda

What did the Ottawa Charter say?

- The Ottawa Charter is a consensus statement developed by WHO at the 1st international conference on health promotion in Ottawa in 1986

- It uses the term "health promotion" to summarize new approaches to public health intervention. The Charter defines health promotion as:

"the process of enabling people to increase control over the determinants of health and thereby improve their health" WHO, (1986)

What did the Ottawa Charter say?

- Five major themes to the "New Public Health":

    - Build *healthy public policy*

    - Create *supportive environments* for health

    - Strengthen *community action* for health

    - Develop *personal skills, and*

    - *Re-orient* health services

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Bangkok Charter for Health Promotion in a Globalized World

- Advocate for health based on human rights

- Invest in sustainable policies, actions and infrastructure to address health determinants

- Build capacity for policy development, leadership, health promotion practice & knowledge transfer

- Regulate and legislate for health protection & to enable equal opportunity for health

- Partner and build alliances with public, private, NGOs and civil society to create sustainable action

(WHO 2005)

The main determinants of health
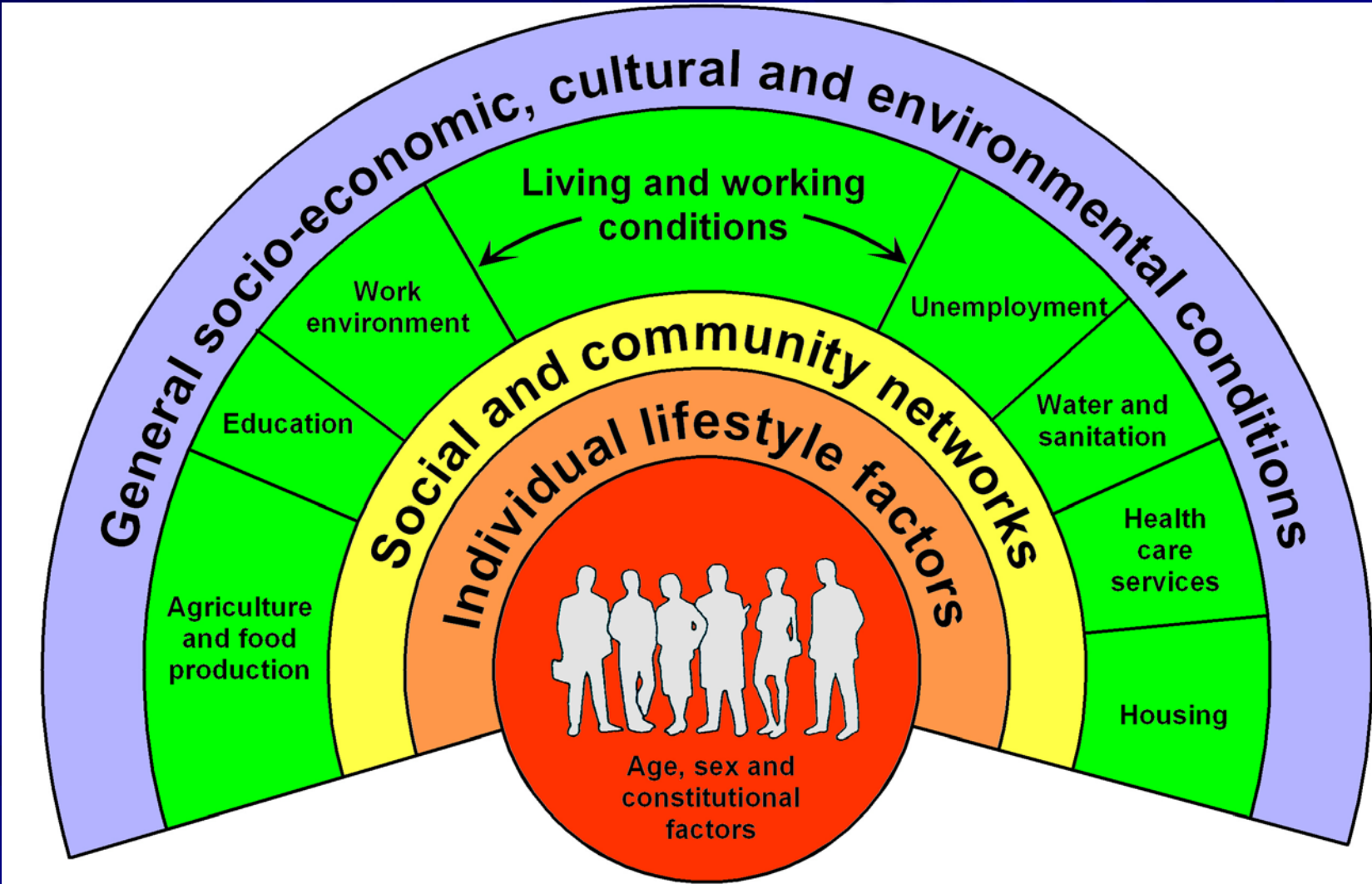
Source: Dahlgren and Whitehead, 1991

"The causative role of individual behaviours have been exaggerated. They should be seen as indicators of other factors which are more straightforwardly related to the social structure, and which are the true aetiological agents."

Blane, (1985)

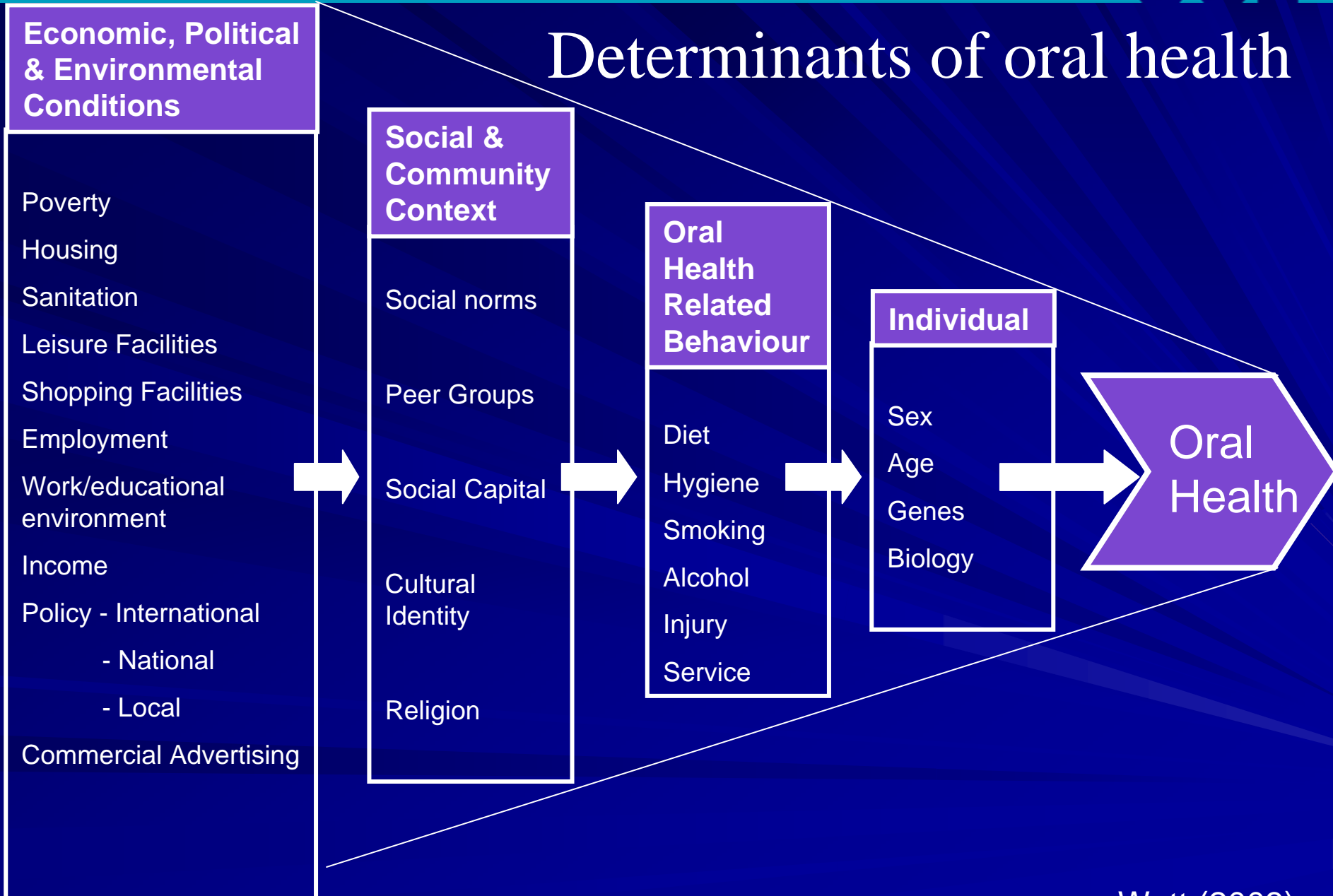# Oral health determinants

- Bio-medical perspective
  - Oral hygiene
  - Sugars consumption
  - Smoking and alcohol
  - Exposure to fluoride
  - Use of dental services

Evaluating role of dental behaviour in oral health inequalities

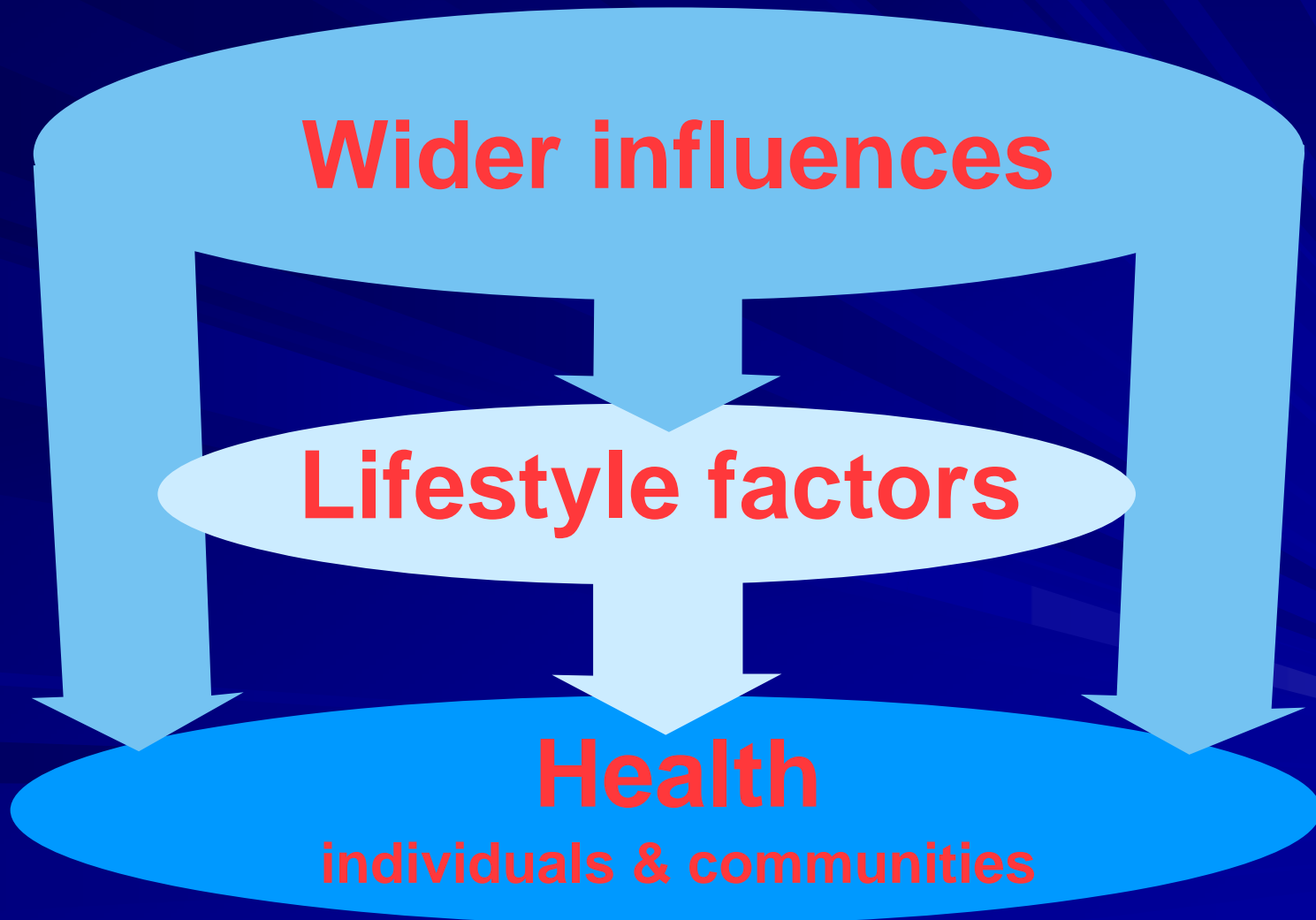"To reduce social inequalities in adult oral health, efforts need to be directed to factors other than the dental behaviours of individuals…. Rather than focusing on individuals alone, the approach needs to achieve a better balance of targeting both individual level factors and also the social environments in which health behaviours of individuals are developed and sustained."

Sanders, Spencer & Slade (2006)

Determinants of oral health

Economic, Political & Environmental Conditions

Poverty

Housing

Sanitation

Leisure Facilities

Shopping Facilities

Employment

Work/educational environment

Income

Policy - International

  - National

  - Local

Commercial Advertising

Social & Community Context

Social norms

Peer Groups

Social Capital

Cultural Identity

Religion

Oral Health Related Behaviour

Diet

Hygiene

Smoking

Alcohol

Injury

Service

Individual

Sex

Age

Genes

Biology

Oral Health

Watt (2003)

Complex influences on health

Wider influences

Lifestyle factors

Health
individuals & communities

Policy Levels for Tackling Inequalities in Health
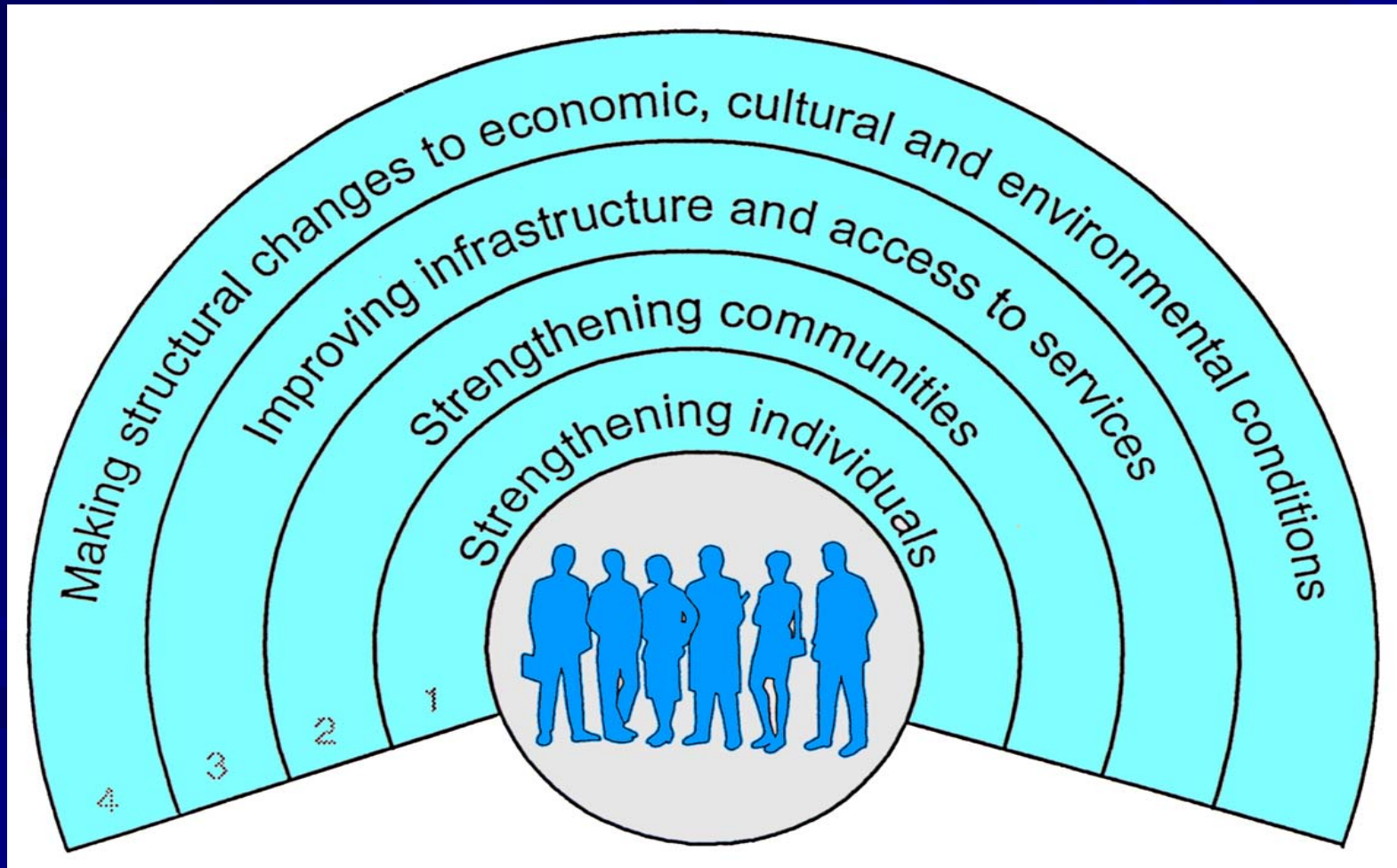
Common Risk/Health Factor Approach ▲ UCL
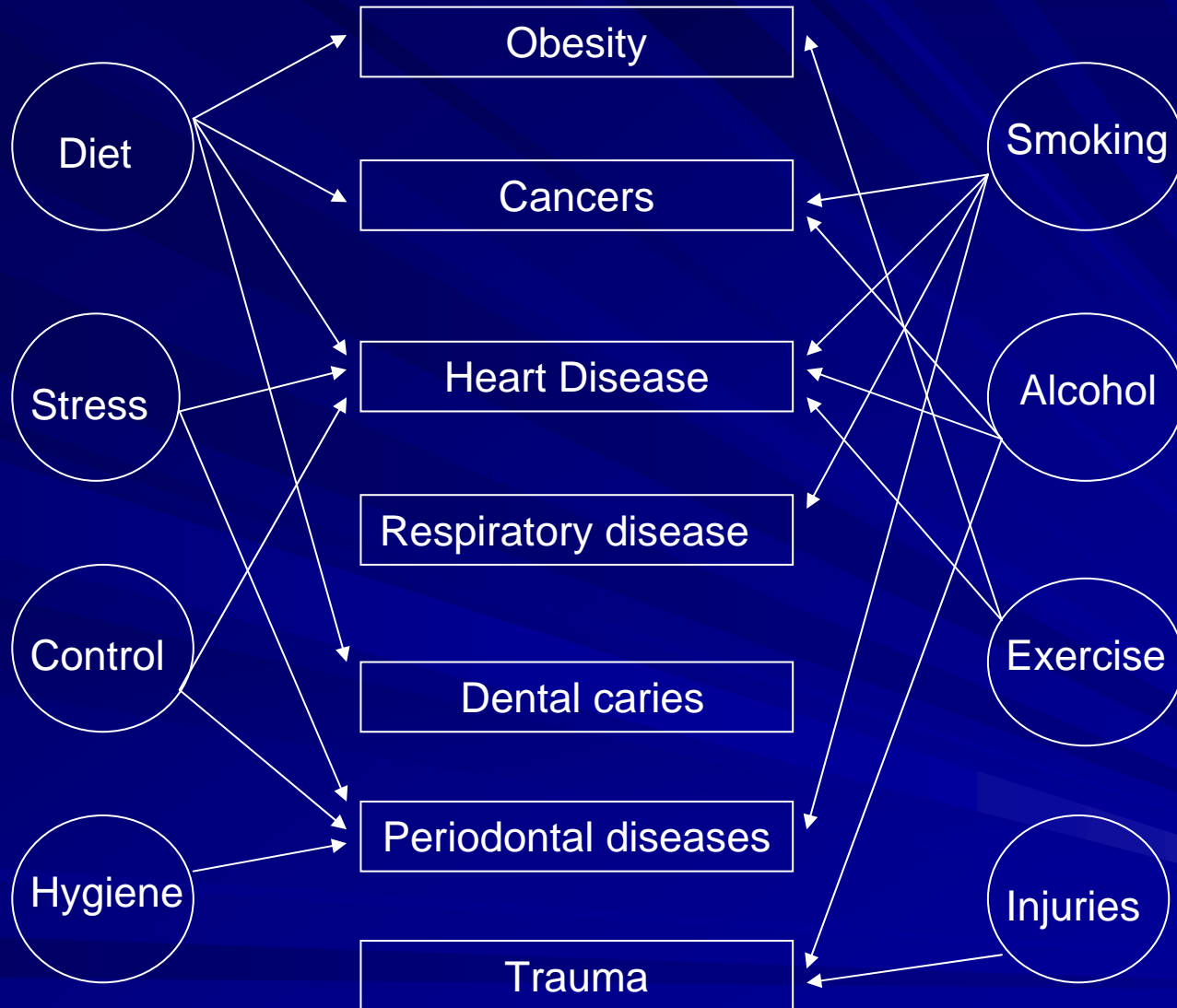
Sheiham & Watt, (2000)

Communities: partnership-working

N.H.S.

Health Authorities
Trusts
Primary Care Groups

LOCAL GOVERNMENT

Education
Housing
Planning & Transport
Social Services

Criminal Justice System

Voluntary & community groups

Business sector

Colleges & universities

Public health agenda: intervention design

- Empowering

- Participatory

- Holistic

- Inter-sectoral

- Equitable

- Sustainable

- Multi-strategy

WHO (1998)

Conclusion 1

Need for radical change in direction and approaches to achieve sustainable improvements in oral health

- From individual behaviour change to focus on altering social environment
- From isolation to integration
- From implementation of dental health education to adoption of complementary range of strategic actions focusing on determinants of oral health

Workshop 1

Each group to design an oral health improvement plan for defined population group:

Specify:

- Aims and objectives of program
- Outline range of key strategies to improve oral health
- Identify collaborations and local partnerships

Principles of evaluation

"Evaluation is the process of assessing what has been achieved and how it has been achieved."

(Ewles & Simment, 2002)
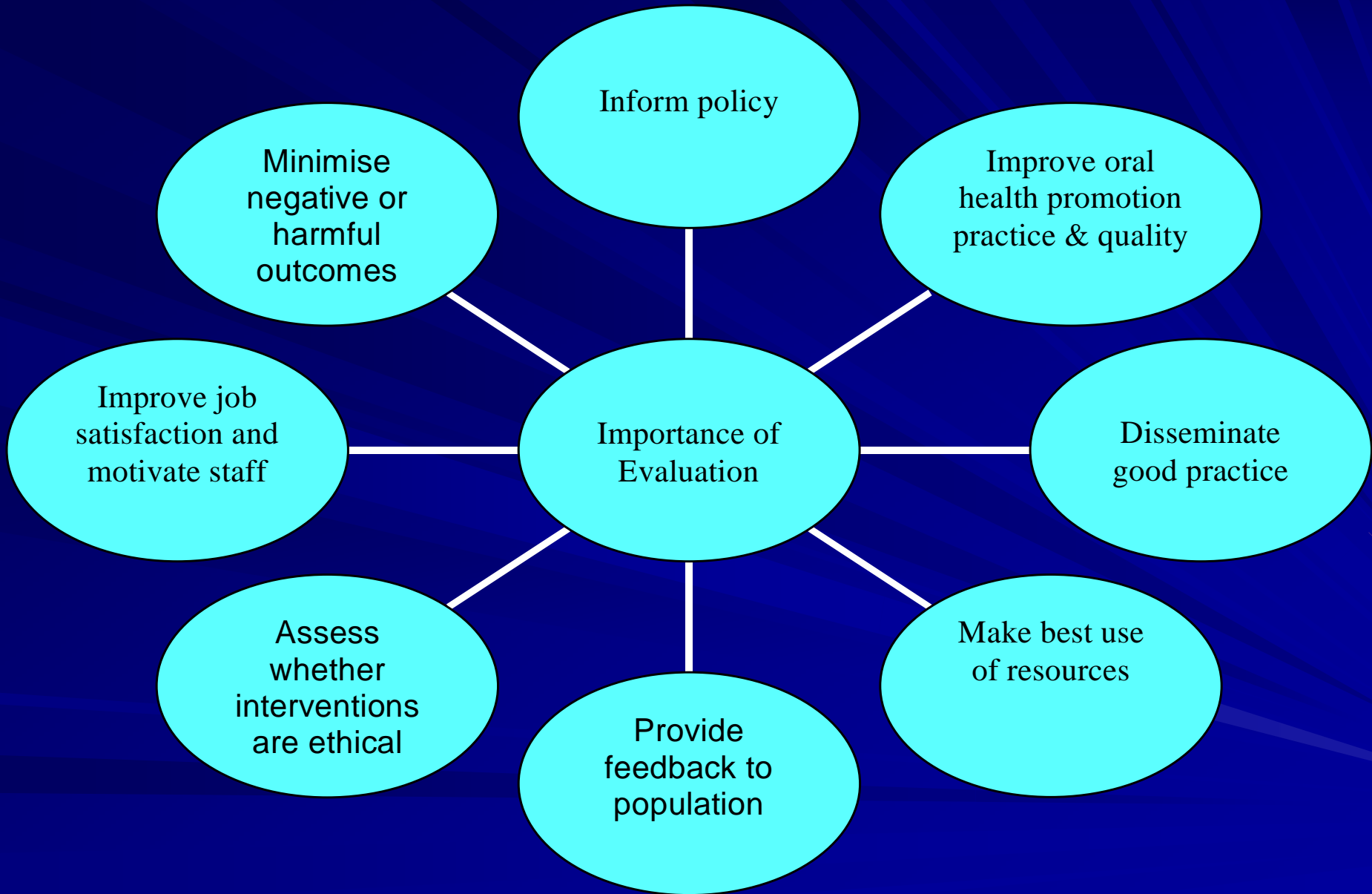
Need for development

- Lack of knowledge, skills and confidence

- Limited resources

- Lack of support - isolation

- Poor evaluation design

- Inappropriate outcomes

- Inappropriate timescale

Watt et al., (2002)

Basic Principles of Evaluation

- Set aims and objectives for intervention

- Clarify purpose of evaluation

- Consider both process and outcome measures

- Select appropriate methods to collect info

- Disseminate information

Purpose of evaluation

- Delivery – is the programme being implemented as planned?

- Effectiveness – are the intended outcomes being achieved?

- Efficiency – are resources being used to best effect?

- Sustainable – are the changes maintained in the longer term?

- Quality – are agreed standards of practice being met?

Process evaluation

- Programme reach – Is the intervention reaching the target group?

- Programme acceptability – Are the all participants satisfied with the intervention?

- Programme integrity – Are all aspects of the intervention being delivered as planned?

- Programme quality - Are the intervention materials and resources of good quality?

Outcome evaluation

- Assesses what was achieved by the intervention - were objectives

  met?

- Range of outcomes appropriate

- Need to reflect nature of intervention & timescale for change

- Should NOT rely only on clinical measures

Stages of Research and Evaluation

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Problem definition	Solution generation	Innovation testing	Intervention demonstration	Intervention dissemination	Programme management
Epidemiology and Demography	Social behavioural and organisational research		Assessment of Outcome		Assessment of cost and benefits (financial, social, political)
Community needs and analysis	Intervention theory development		Understanding of Process		Performance monitoring
What is the problem?	How might it be solved?	Did the solution work?	Can the programme be repeated/ refined?	Can the programme be widely reproduced?	Can the programme be sustained?

Key Research Questions

Evaluation methods

Health Promotion Evaluation: Recommendations to Policymakers

Report of the WHO European Working Group
on
Health Promotion Evaluation

Integrated
Health
Development

Health   Santé
Canada Canada

CDC
CENTERS FOR DISEASE CONTROL
AND PREVENTION

WHO Recommendations

"The use of randomised control trials to evaluate health promotion initiatives is, in most cases, inappropriate, misleading and unnecessarily expensive."

"Policy makers should support the use of multiple methods to evaluate health promotion initiatives."

"Policy makers should support further research into the development of appropriate approaches to evaluating health promotion initiatives."

WHO 1998

Range of methods available

Quantitative

- Experimental
- Quasi-experimental
- Observational
- Economic

Qualitative

- Semi-structured interviews
- Focus groups
- Documentary analysis

Evaluation outcomes for public health interventions

Fig 1. Outcome model for health promotion

Health Promotion Actions	Health Promotion Outcomes (intervention impact measures)	Intermediate Health Outcomes (modifiable determinants of health)	Social and Health Outcomes

Fig 1. Outcome model for health promotion

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Health Promotion Actions	Health Promotion Outcomes (intervention impact measures)	Intermediate Health Outcomes (modifiable determinants of health)	Social and Health Outcomes
Education Examples include: patient education, school education, broadcast media communication			
Social mobilisation Examples include: community development, group facilitation, technical advice			
Advocacy Examples include: lobbying, political organisation and activism, overcoming bureaucratic inertia			

Fig 1. Outcome model for health promotion

Health Promotion Actions	Health Promotion Outcomes (intervention impact measures)	Intermediate Health Outcomes (modifiable determinants of health)	Social and Health Outcomes
Education Examples include: patient education, school education, broadcast media communication	**Health Literacy** Measures include: health-related knowledge, attitude, motivation, behavioural intentions, personal skills, self-efficacy		
Social mobilisation Examples include: community development, group facilitation, technical advice	**Social action & influence** Measures include: social norms, public opinion, community action		
Advocacy Examples include: lobbying, political organisation and activism, overcoming bureaucratic inertia	**Healthy public policy & organisational practice** Measures include: policy statements, legislation, regulation, resource allocation organisational practices		

Fig 1. Outcome model for health promotion

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Health Promotion Actions	Health Promotion Outcomes (intervention impact measures)	Intermediate Health Outcomes (modifiable determinants of health)	Social and Health Outcomes
Education Examples include: patient education, school education, broadcast media communication	**Health Literacy** Measures include: health-related knowledge, attitude, motivation, behavioural intentions, personal skills, self-efficacy	**Healthy Lifestyles** Measures include: tooth brushing and related oral hygiene, food choices	
Social mobilisation Examples include: community development, group facilitation, technical advice	**Social action & influence** Measures include: social norms, public opinion, community action	**Effective health service** Measures include: provision of preventive services, access to and appropriateness of oral health services	
Advocacy Examples include: lobbying, political organisation and activism, overcoming bureaucratic inertia	**Healthy public policy & organisational practice** Measures include: policy statements, legislation, regulation, resource allocation organisational practices	**Healthy Environments** Measures include: fluoridated water, access to/ affordability of oral health care products	

Fig 1. Outcome model for health promotion

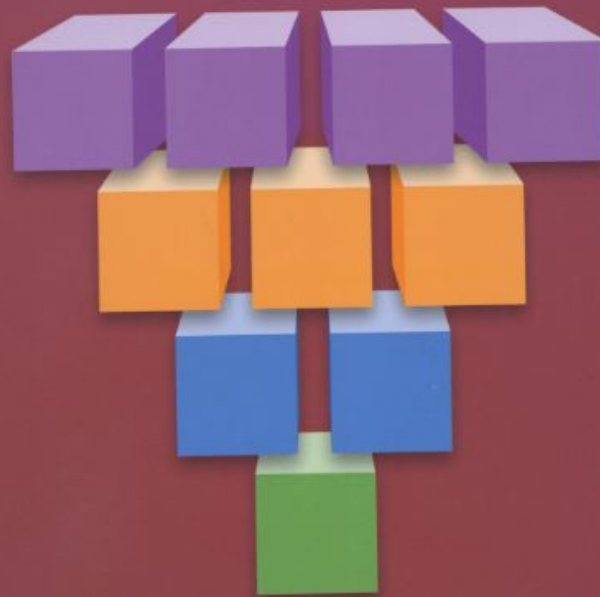| Health Promotion Actions	Health Promotion Outcomes (intervention impact measures)	Intermediate Health Outcomes (modifiable determinants of health)	Social and Health Outcomes
Education Examples include: patient education, school education, broadcast media communication	**Health Literacy** Measures include: health-related knowledge, attitude, motivation, behavioural intentions, personal skills, self-efficacy	**Healthy Lifestyles** Measures include: food choices, oral hygiene, smoking, service utilization	**Social Outcomes** Measures include: quality of life, functional independence, freedom from pain
Social mobilisation Examples include: community development, group facilitation, technical advice	**Social action & influence** Measures include: social norms, public opinion, community action	**Effective health service** Measures include: provision of preventive services, access to and appropriateness of oral health services	
Advocacy Examples include: lobbying, political organisation and activism, overcoming bureaucratic inertia	**Healthy public policy & organisational practice** Measures include: policy statements, legislation, regulation, resource allocation organisational practices	**Healthy Environments** Measures include: fluoridated water, access to/ affordability of food choices,	**Health Outcomes** Measures include: reduced morbidity, disability, avoidable mortality (reduced DMF)

Nutbeam (1998)

Oral health promotion evaluation toolkit

Review and testing of oral health promotion outcome evaluation measures

Prof Richard Watt

Prof Elizabeth Kay

Prof Elizabeth Treasure

Dr Ruth Nowjack-Raymer

Blanaid Daly

Robert Harnett

Antony Morgan

Sabrina Fuller

Polly Munday

Aim of project

To develop and test a set of appropriate age specific oral health promotion evaluation outcome measures applicable for use in primary dental care settings

Methodology

- Theoretical framework developed by Nutbeam (1998)

- Mix of quantitative and qualitative methods

- Participative approach - key players

- 6 stage procedure

Six stage procedure

- Stage 1: Systematic search

- Stage 2: Quality assessment review

- Stage 3: Validation exercise - method triangulation

- Stage 4: Initial consultation - expert review

- Stage 5:Pilot testing

- Stage 6: Final consultation - users

Evaluation toolkit

- Three target groups

    - Pre-school

    - School children

    - Older people

- Wide range of outcome measures tested for validity and reliability

- Selection of outcomes presented

- Available at www.shancocksltd.com

Key results

- Search uncovered 1202 measures

- High proportion classified as health literacy and lifestyle outcomes

- 49% passed quality testing

- 82% passed validation testing

- 66% and 75% passed reliability and discriminatory power testing respectively

Type of measure	Pre-school children			12 year old children			Adults aged 65 years +		
	No. identified	No. meeting criteria	% meeting criteria	No. identified	No. meeting criteria	% meeting criteria	No. identified	No. meeting criteria	% meeting criteria
Morbidity	8	5	63	10	1	10	11	10	91
Quality of Life/ pain	36	12	33	26	15	58	33	32	97
Healthy lifestyles	113	34	30	63	24	38	41	14	34
Effective dental health services:									
-Dental Health Services	48	13	27	24	8	33	17	3	18
-Health Visitors	22	19	86	7	7	100	*	*	*
-Pharmacists	19	14	74	16	16	100	*	*	*
Sub total	89	46	52	47	31	66	17	3	18
Healthy environments	25	25	100	17	17	100	43	43	100

* No items identified for this category

Results of quality assessment review for each target population group (part 2)

Type of measure	Pre-school children			12 year old children			Adults aged 65 years +		
	No. identified	No. meeting criteria	% meeting criteria	No. identified	No. meeting criteria	% meeting criteria	No. identified	No. meeting criteria	% meeting criteria
Healthy Public Policy									
-Policy Development	3	2	67	2	2	100	2	2	100
-Policy Implementation	2	2	100	2	2	100	1	1	100
Sub total	5	4	80	4	4	100	3	3	100
Social influence and action:									
-Awareness	3	3	100	4	4	100	*	*	*
-Opinions	10	10	100	10	10	100	4	4	100
Sub total	13	13	100	14	14	100	4	4	100
Healthy literacy									
-Attitudes	16	11	69	111	35	32	85	25	29
-Knowledge	59	33	56	95	39	41	31	15	48
-perceived control	30	15	50	79	41	52	74	26	35
Sub total	105	59	56	285	115	40	190	66	35
Totals	**394**	**198**	**50%**	**466**	**221**	**47%**	**342**	**175**	**51%**

* No items identified for this category

WHO Oral health evaluation guide

Watt and Petersen (2006)

Evaluation guide

- Guide to good practice

- Intervention design and planning

- Principles and practice of evaluation

- Practical case studies

Good practice in evaluation

- Participation

- Multiple methods

- Resources

- Measures

- Capacity building

- Dissemination

WHO (1998)

Workshop 2

Each small group to develop evaluation plan:

Consider:

- Evaluation methods
- Selection of process and outcome measures
- Identify resources and support needed

Final conclusion

- Need for public health approach to achieve sustainable oral health improvements

- Interventions need to focus on determinants of oral health & adopt multi-strategy approach

- Evaluation of interventions essential

- Need for appropriate evaluation methods and measures