ACNAP
Association of Cardiovascular Nursing & Allied Professions

Imperial College London

Counselling and lifestyle intervention: people at moderate risk

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THE ROLE OF DYSLIPIDAEMIAS IN DETERMINING CARDIOVASCULAR RISK: FROM LIFESTYLE TO PHARMACOLOGICAL INTERVENTION

November 17th -18th 2018,

Naples Italy

Considerations for effectively helping people to change adverse lifestyle habits

- Appropriateness of behaviour change technique (BCT) forthe intervention
- Delivery of BCT with fidelity
- Awareness of context (psychological, environmental, political)
- Multifactorial approach
- Interdisciplinary working
- Essential expertise
- Involving families
- Coordination

Types of health behaviour change interventions

- Preventing/ stopping engagement in risky behavior
- Promoting engagement in healthy behaviour
- Switching from more harmful to less harmful behavior
- Promoting effective use of health interventions (e.g medication adherence)

Defining moderate risk

Table 2.1 Priorities for CVD prevention		
Very high risk	Subjects with any of the following: Documented CVD Type 2 diabetes, or type 1 diabetes and target organ damage (such as microalbuminuria) Moderate to severe chronic kidney disease (GFR <60 mL/min/1.73 m^2) SCORE ≥10%	
High risk	Markedly elevated single risk factors such as: Familial dyslipidaemias Severe hypertension SCORE ≥5% and <10%	
Moderate risk	SCORE ≥1% and <5%, further modulated by:	
	Family history of premature CAD Abdominal obesity Low physical activity levels	Low HDL-C Elevated triglycerides Elevated hsCRP Social class
Low risk	SCORE <1% and free of qualifiers	

Why address moderate risk?

- Collection of lifestyle and biological risk factors
- Management may prevent further increase in total risk
- Increase awareness of the danger of cardiovascular risk
- Improve risk communication and promote primary prevention efforts
- May reduce need for drugs to manage risk

ESC/EAS Lipid Guideline 2016

Goals for lifestyle and risk factors

Lifestyle

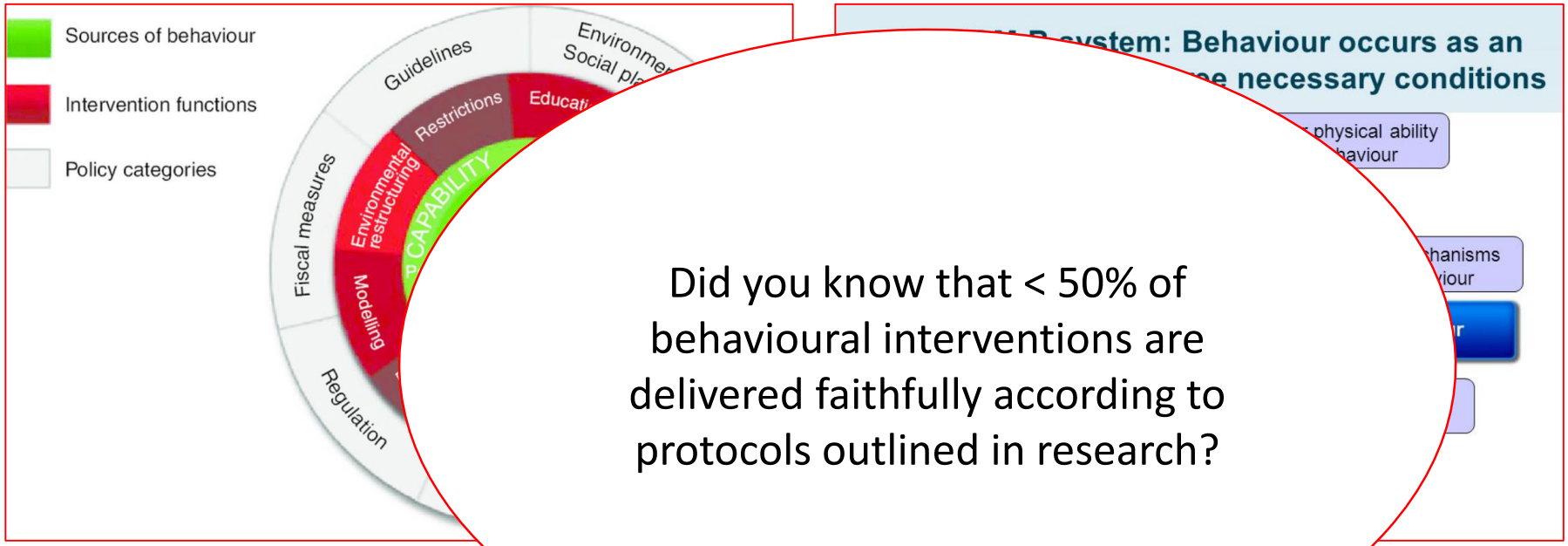
- No exposure to tobacco in any form
- Healthy diet low in saturated fats with a focus on wholegrain products, vegetables, fruit and fish
- 2.5 – 5 hours of moderately vigorous physical activity per week or 30 – 60 minutes most days

Risk factors

- BP < 140/90 mmHg (or lower depending on age)
- LDL-C < 3 mmol/l (< 115 mg/dl) – moderate risk
- HbA1c < 7% (< 53 mmol/mol) in diabetes

Improving adverse lifestyles impacts on risk

Framework for understanding behaviour - COM-B



Did you know that < 50% of behavioural interventions are delivered faithfully according to protocols outlined in research?

- An effective behavioural
  - Using effective BCTs ap ate to the intervention
  - Delivered with fidelity

Michie 2011 Implement Sci 6:42. Michie TBM 2018;8:212–224

Example of goal setting:
10 point quality scale for delivery of BCT

0	Absence of goal setting
+1	Prompts goal setting (i.e. encourages smoker to set a quit date)
+1	Agreed quit date is a clear date (i.e. dd/mm/yy)
+1	Agreed quit date is within an appropriate time frame (i.e. within 1–2 weeks of pre-quit session)
+1	Practitioner takes into account the time taken to obtain medication when selecting an appropriate quit date.
+1	Provides advice as to why cutting down does not work
+1	Emphasises that the goal is not to smoke a single cigarette after the quit date, not even a single puff
+1	Provides relevant normative information and examples (i.e. what other smokers' have found helpful when setting a quit date, research findings regarding effectiveness of suggested behavioural strategies and medications).
−1	Inappropriate goal setting [i.e. not a clear quite date (i.e. dd/mm/yy), not within 1–2 weeks of pre-quit session and/or does not allow sufficient time for smoker to obtain medication]
−1	Encourages or reinforcing cutting down

Successfully setting a quit date.

- Setting a clear quit date
- Agree a quit date within an appropriate time frame

Inappropriate goal setting.

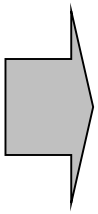
- Setting an unclear quit date within an inappropriate time frame
- Not permissive of sufficient time to obtain medications

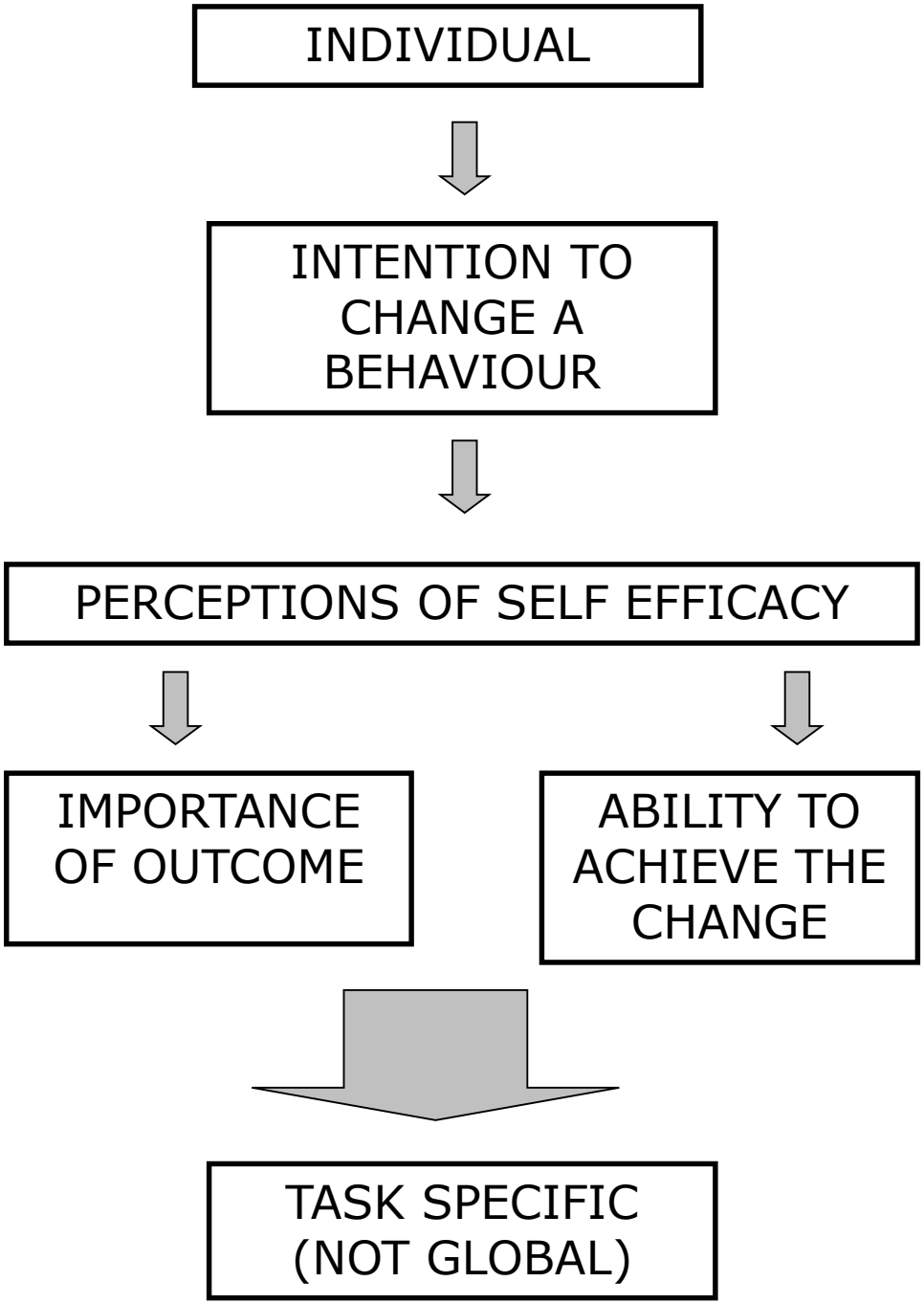
Lorencatto (2016) ann. behav. med. 50:310 –318

Context for lifestyle counselling

SUPPORTIVE ENVIRONMENT

- Easy choices
- Reduced psychological, behavioural and environmental barriers





Jennings CS et al 2009 Preventive Cardiology: a practical manual OUP

Awareness of the determinants of health behaviour

Reach beyond psychological factors to include:

- Socio-cultural and national elements (religion, cooking)
- Legislation (smoking bans)
- Macro-economics (cost of healthy foods)
- Systems of provision and services (cycle paths)
- Health service provision (prevention as a priority)
- Socio-demographic factors (socio-economic status)
- Impaired health status
- Social and family factors
- Psychological factors

Make healthy choices easy choices

Steptoe & Wardle 2004, Tones & Green 2004

Be aware of the context for behavior change

- Healthy choices should be easy choices
- Inequalities, cultural, environmental and political factors influence behavior change
- Your agenda as a health professional may conflict with the person you are trying to help – health may not be the motivator to change
- Helping people to change takes time and requires follow up
- Ambivalence to change requires exploration and is not necessarily a reason to back off

Giving information

- Information exchange**: elicit-provide-elicit** model of communicating information to patients

- Elicit: What do you want to know? What do you know?
- Provide: Clear and neutral information
- Elicit: What do you make of this?

Rollnick S, Mason P et al 1999 Health behavior change: a guide for practitioners

How motivated is the patient to change?
Scaling Questions

Understand how your patient feels about behaviour change

Importance

0---------- I ---------- 10

Not at all Important — Very Important

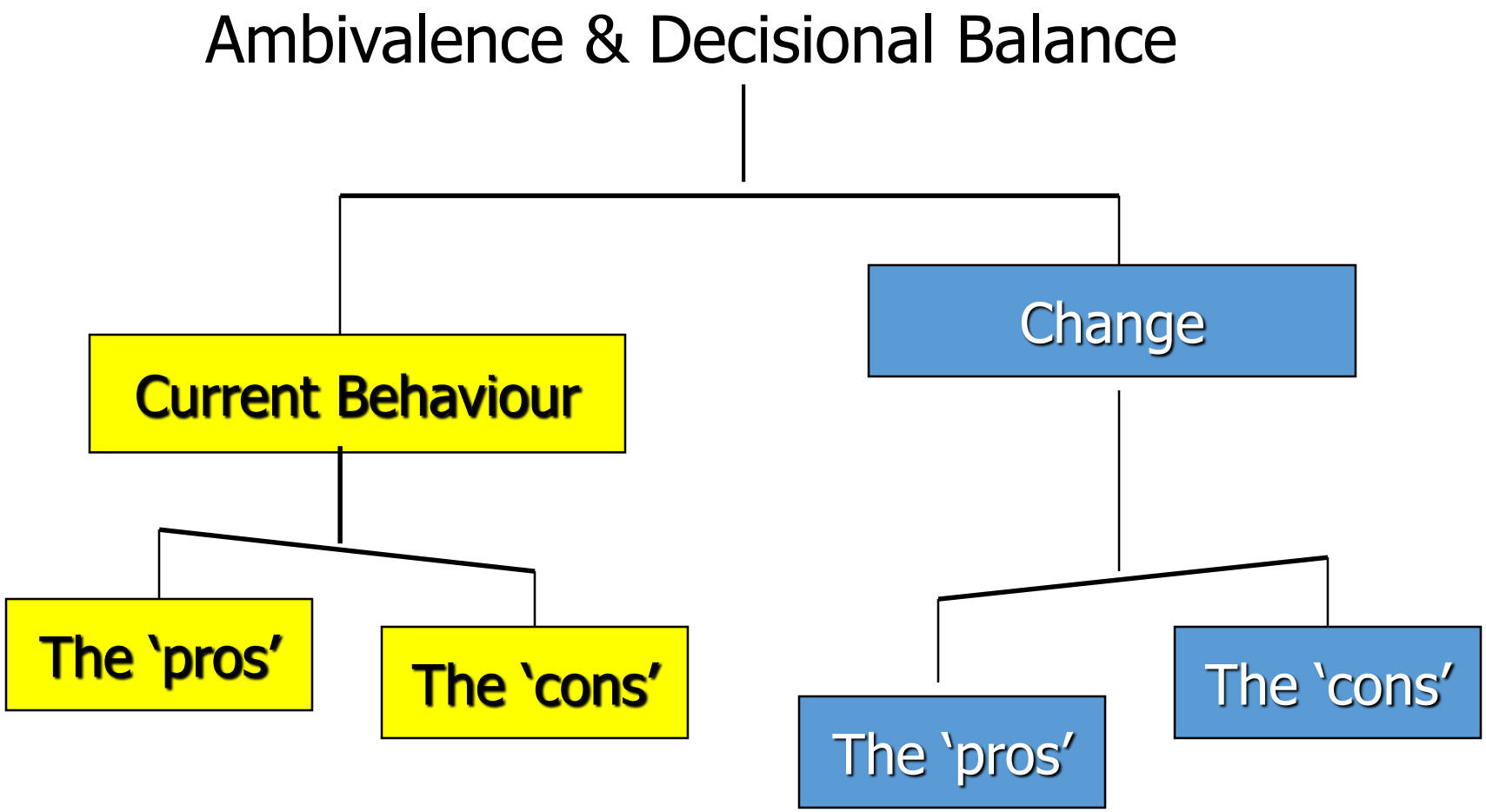
Confidence

0---------- I ---------- 10

Not at all Confident — Very Confident

Readiness to change

Exploring the Pros and Cons



Box 5.1 Be aware of the power you hold

As health professionals we are valued for our expertise.
Take care to use this power in a constructive way:

DON'T

- Force
- Indoctrinate
- Use coercion
- Manipulate
- Use hidden threats
- Be dictatorial

DO

- Allow choice
- Raise critical awareness
- Be facilitative
- Share agenda setting
- Be honest
- Negotiate

Jennings CS et al 2009 Preventive Cardiology: a practical manual OUP

Motivational Interviewing to manage ambivalence and build self efficacy

OARS model

- Communication skills: 'OARS'
  - Open ended questions
  - Affirm
  - Reflective listening: repeat, rephrase, paraphrase
  - Summarise

- Express empathy
- Roll with resistance
- Support self-efficacy
- Avoid argumentation

- Pick out key messages
- Clarify main issues
- Set an agenda – goal setting

- Support patient autonomy in decision making about behavior change
- Explore ambivalence
- Negotiate goals and develop an action plan together

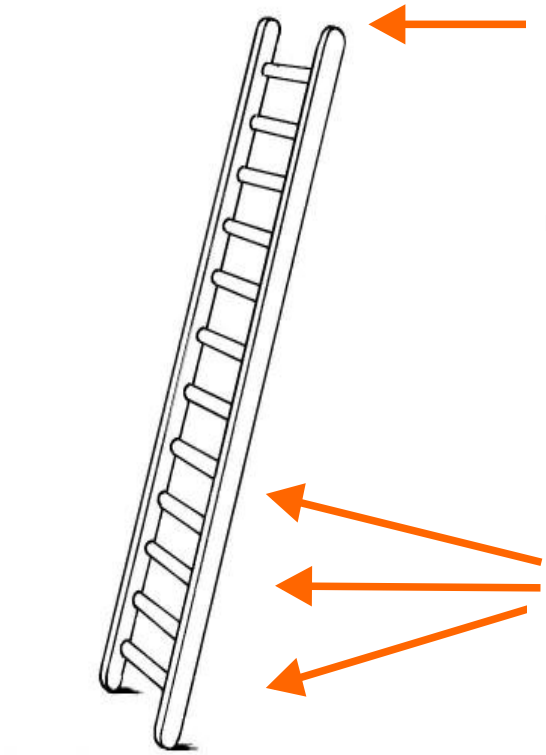
Bandura, New York: freeman, 1997. Miller and Rollnick 2002 NY Guildford Press

Goal setting

Realistic and achievable goals

- **S**pecific
- **M**easurable
- **A**chievable
- **R**eliable
- **T**imely

Graded Goals



BIG GOALS e.g. 5 portions of fruit & veg/day

'One Day at A Time' Goals

Add vegetables at dinner time on 2 days this week

Risk factor targets and results

Smoking

Target: No smoking

Date	Target	Comment

Healthy eating

Date	Target	Comment

Physical activity

Target: A total of 30 minutes' moderate activity a day, on at least 5 days a week

Date	Target	Comment

Weight

	Weight	Body mass	Waist
Targets Date		20–25 kg/m²	*Men:* Below 94 cm (37 inches) *Women:* Below 80 cm (31½ inches)

Blood pressure

Target: Below 140/90
If you have diabetes: Below 130/85

Date	Result	Date	Result

Cholesterol

	Cholesterol	LDL cholesterol
Target	Below 5 mmols per litre Below 190 mg per decilitre	Below 3 mmols per litre Below 115 mg per decilitre
Date		

Glucose

	Fasting blood glucose
Target	Below 6.1 mmols per litre Below 110 mg per decilitre
Date	

Translating evidence and guidelines into practical messages

Key messages

- Decrease intake of saturated fat and replace with unsaturated fat.
- Eat fish two to three times a week, one being oily. Eat at least two large portions a week of oily fish or take a supplement if patient has had an MI.
- Eat five portions of fruit and vegetables each day.
- Increase in take of soluble fibre.
- Eat fresh rather than processed food where ever possible.
- Maintain a healthy weight and shape.

ESC/EAS Lipid Guideline

Box 11 Hints to aid adherence to lifestyle changes

1. Explore motivation and identify ambivalence. Weigh pros and cons for change, assess and build self-efficacy and confidence, avoid circular discussion.
2. Offer support and establish an alliance with the patient and his/her family.
3. Involve the partner, other household members or caregiver who may be influential in the lifestyle of the patient.
4. Use the **OARS** method (**O**pen-ended questions, **A**ffirmation, **R**eflective listening, **S**ummarising; http://www.smartrecovery.org/resources/UsingMIinSR.pdf) when discussing behaviour changes.
5. Tailor advice to an individual patient's culture, habits and situation.
6. Use **SMART** goal setting–negotiate goals for change that are **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**imely. Follow up on goals and record progress on a shared record.

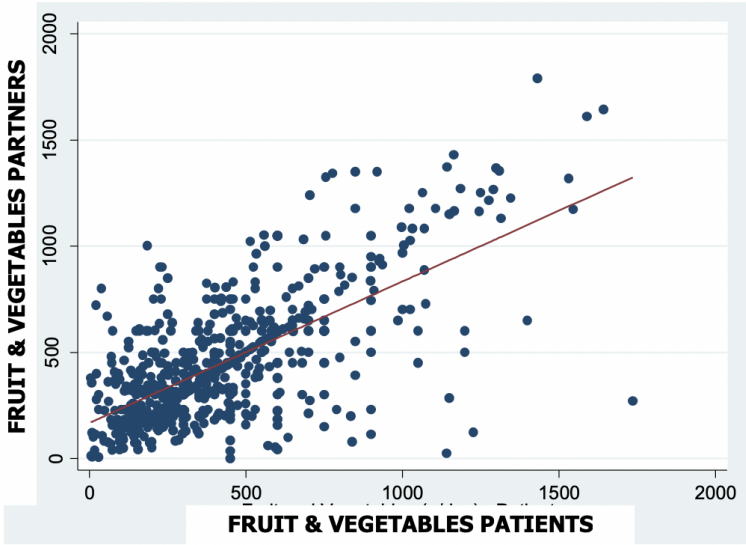
Importance of families in behaviour change

Concordance for dietary habits in couples

	Initial Assessment	
Fruit and vegetables (g/day)	0.67	p<0.0001
Saturated fat (g/day)	0.43	p<0.0001
Waist circumference (cm)	0.12	p=0.004
BMI (kg/m^2)	0.22	p<0.0001

Spearman rank and Pearson correlation coefficients

Correlation at baseline between patients and partners for fruit and vegetable consumption

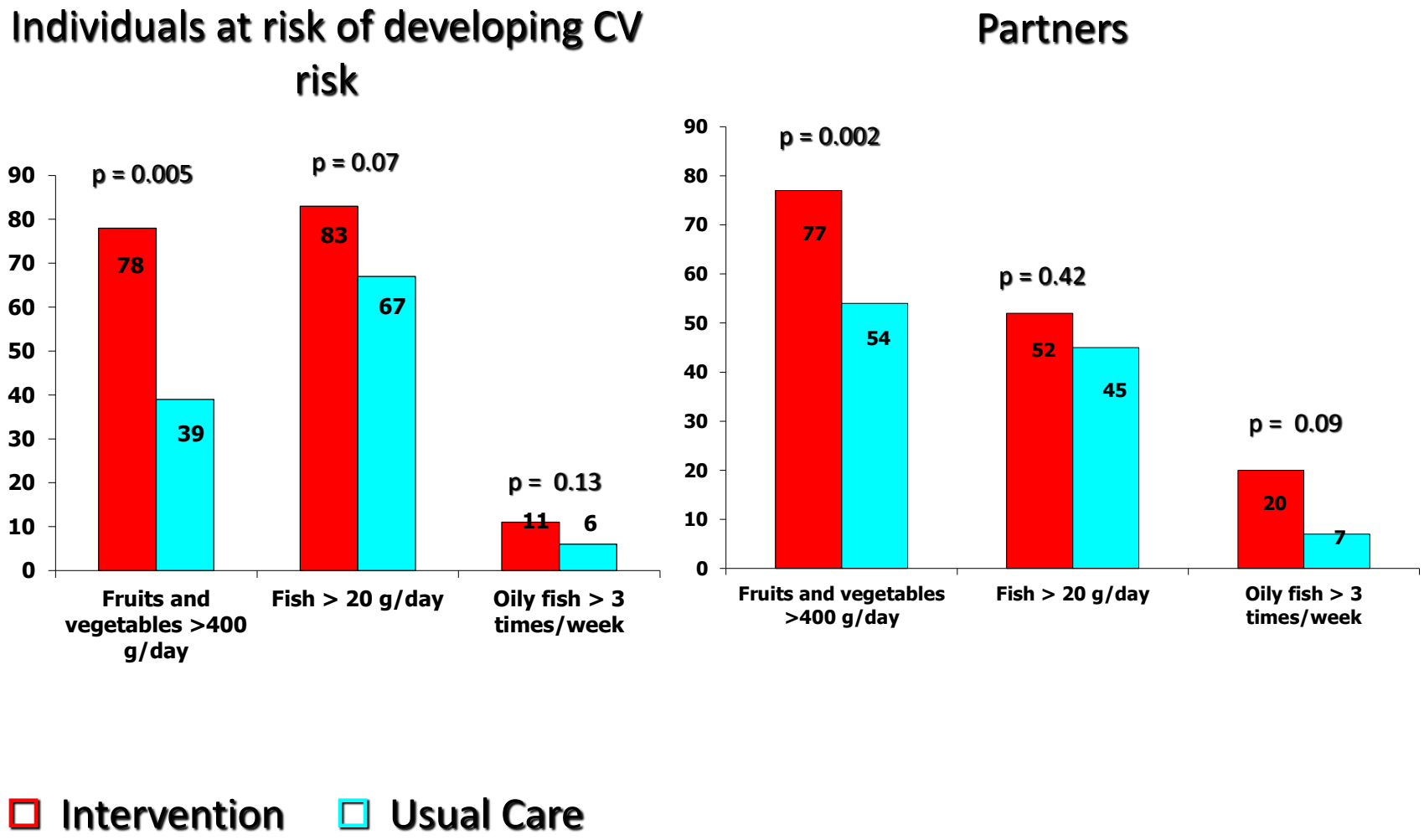


Food Habit Questionnaire

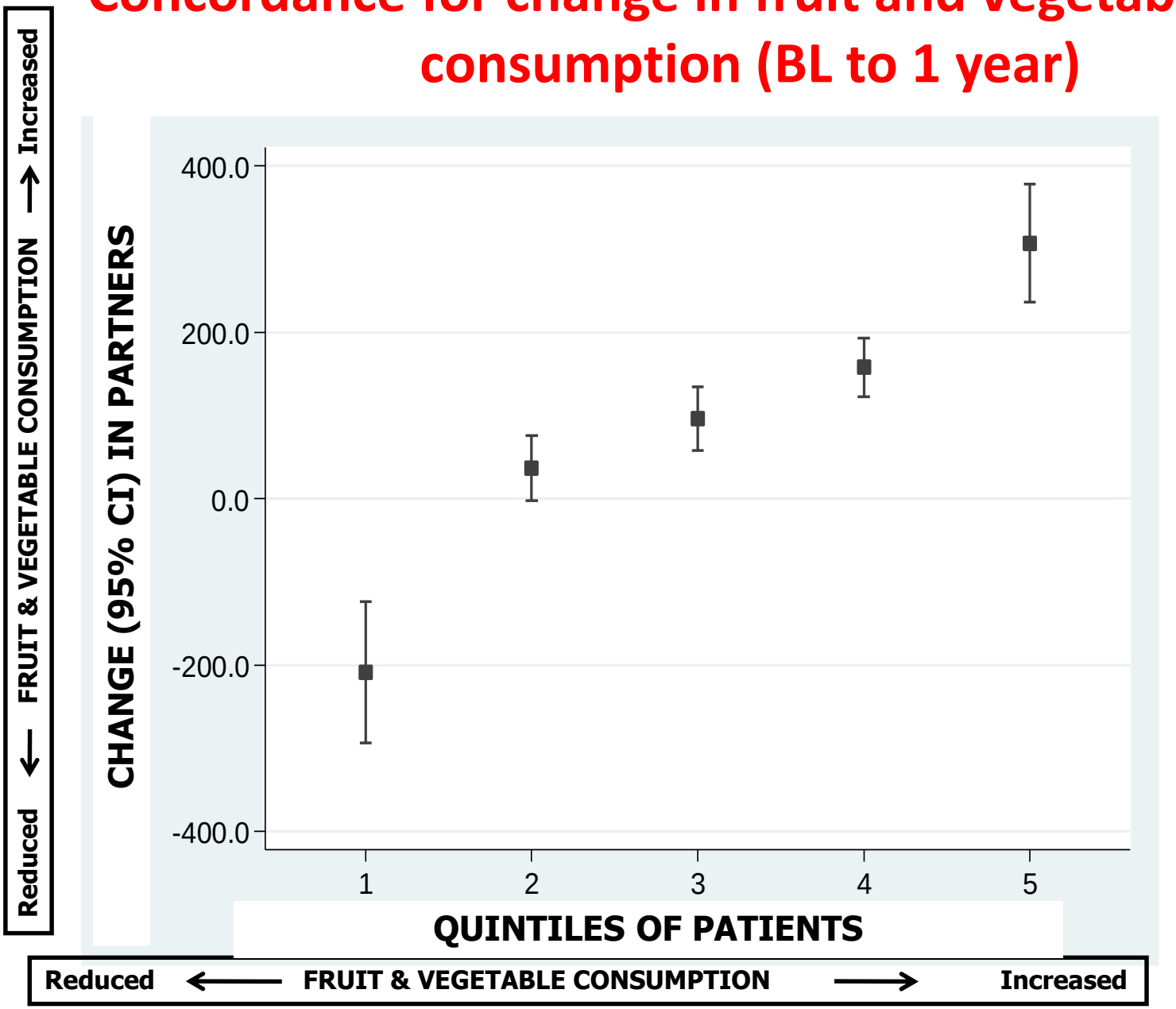
Spearman rank correlation coefficient r=0.67 , p<0.0001 (n=640)

Observational data from EUROACTION cluster RCT

EUROACTION cluster RCT: Proportions of patients and partners achieving the European targets for a healthy diet



Concordance for change in fruit and vegetable consumption (BL to 1 year)



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Lessons from contemporary trials of cardiovascular prevention and rehabilitation: A systematic review and meta-analysis☆,☆☆,☆☆☆

Gijs van Halewijn [a,b], Jaap Deckers [a], Hung Yong Tay [b], Ron van Domburg [a,*], Kornelia Kotseva [b], David Wood [b]

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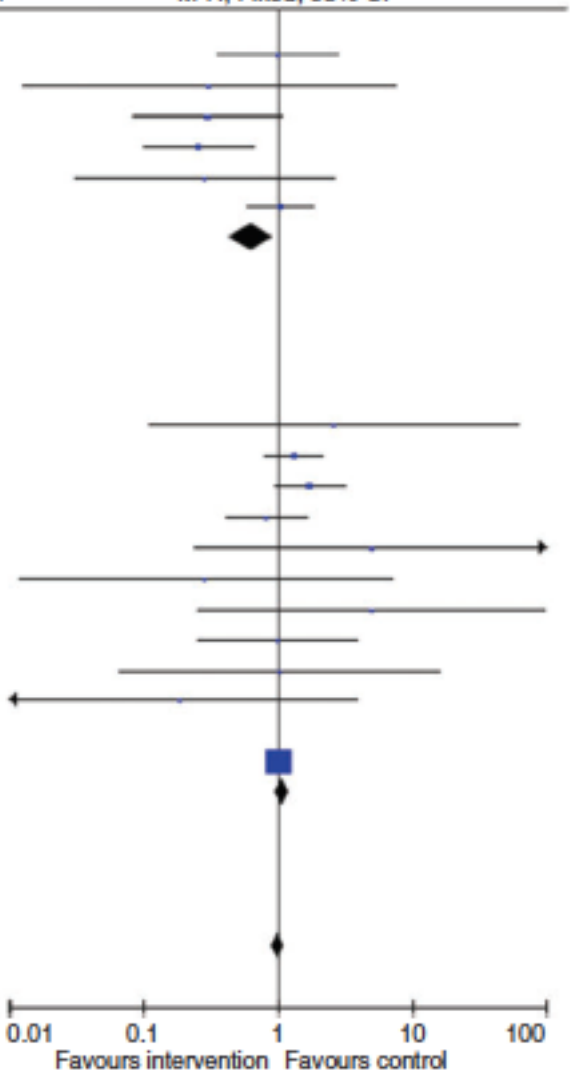
van Halewijn G et al.Int J Cardiol 2017; 232: 294–303.

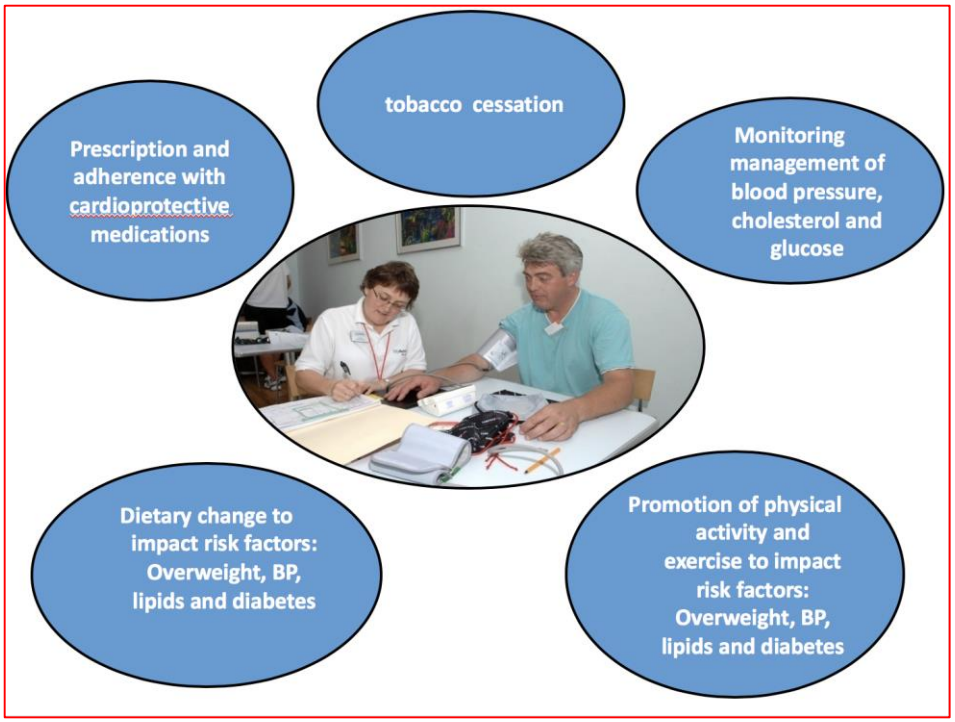
TOTAL MORTALITY: Comprehensive versus less comprehensive programmes.

Study or Subgroup	Intervention Events	Intervention Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
5.10.1 ≥ 6 risk factors addressed						
Cohen 2014	7	251	7	251	1.9%	1.00 [0.36, 2.81]
He 2012	0	136	1	127	0.4%	0.31 [0.01, 7.58]
Jorstad 2013	3	375	10	379	2.7%	0.30 [0.08, 1.09]
Moreno-Palanco 2011	5	121	20	126	5.3%	0.26 [0.10, 0.67]
Saffi 2014	1	43	3	37	0.9%	0.29 [0.03, 2.64]
Stewart 2015	24	310	23	314	6.2%	1.06 [0.61, 1.83]
Subtotal (95% CI)		1236		1234	17.5%	0.63 [0.43, 0.93]
Total events	40		64			
Heterogeneity: $Chi^2 = 9.41$, df = 5 (P = 0.09); $I^2 = 47\%$						
Test for overall effect: Z = 2.34 (P = 0.02)						
5.10.2 < 6 risk factors addressed						
Astengo 2010	1	33	0	29	0.1%	2.65 [0.11, 62.56]
Brotons 2011	36	624	26	600	7.2%	1.33 [0.81, 2.18]
Carrington 2013	27	306	15	296	4.1%	1.74 [0.95, 3.21]
Haglin 2011	15	36	6	12	2.4%	0.83 [0.42, 1.65]
Hawkes 2013	2	215	0	215	0.1%	5.00 [0.24, 103.54]
Janssen 2014	0	112	1	98	0.4%	0.29 [0.01, 7.09]
Krebs 2013	2	17	0	17	0.1%	5.00 [0.26, 97.00]
Mosca 2010	4	151	4	153	1.1%	1.01 [0.26, 3.98]
Pinto 2011	1	64	1	66	0.3%	1.03 [0.07, 16.14]
Reid 2012 Online program	0	115	2	108	0.7%	0.19 [0.01, 3.87]
Reid 2012 Phone counselling	0	69	0	72		Not estimable
West 2012	245	903	243	910	65.8%	1.02 [0.87, 1.18]
Subtotal (95% CI)		2645		2576	82.5%	1.08 [0.94, 1.24]
Total events	333		298			
Heterogeneity: $Chi^2 = 8.47$, df = 10 (P = 0.58); $I^2 = 0\%$						
Test for overall effect: Z = 1.10 (P = 0.27)						
Total (95% CI)		3881		3810	100.0%	1.00 [0.88, 1.14]
Total events	373		362			
Heterogeneity: $Chi^2 = 21.94$, cf = 16 (P = 0.15); $I^2 = 27\%$						
Test for overall effect: Z = 0.03 (P = 0.98)						
Test for subgroup differences: $Chi^2 = 6.62$, df = 1 (P = 0.01). $I^2 = 84.9\%$						



van Halewijn G et al.Int J Cardiol 2017; 232: 294–303.

From signposting to single treatment preventive services



To integrated service provision using an interdisciplinary patient centred approach

Working together

Interdisciplinary Working

"An interdisciplinary team aspires to a more profound level of collaboration (than a multidisciplinary team), in which constituents of different backgrounds combining their knowledge mutually complete different levels of planned care."

Bernard-Bonnin et al (1995)
J Allergy Clin Immunol 95: 34-41

Team Based Care

- Five key principles underpin effective team-based care:
  - shared goals
  - clear roles
  - mutual trust
  - effective communication
  - measurable processes and outcomes

Mitchell P et al. (2012) https://www.nationalhuddle.com/files/VRTS-Team-Based-Care-Principles-Values.pdf

Nurses as natural coordinators – nurse led care

'The care coordination process is one aspect of professional practice through which registered nurses at every level regularly influence patient care'

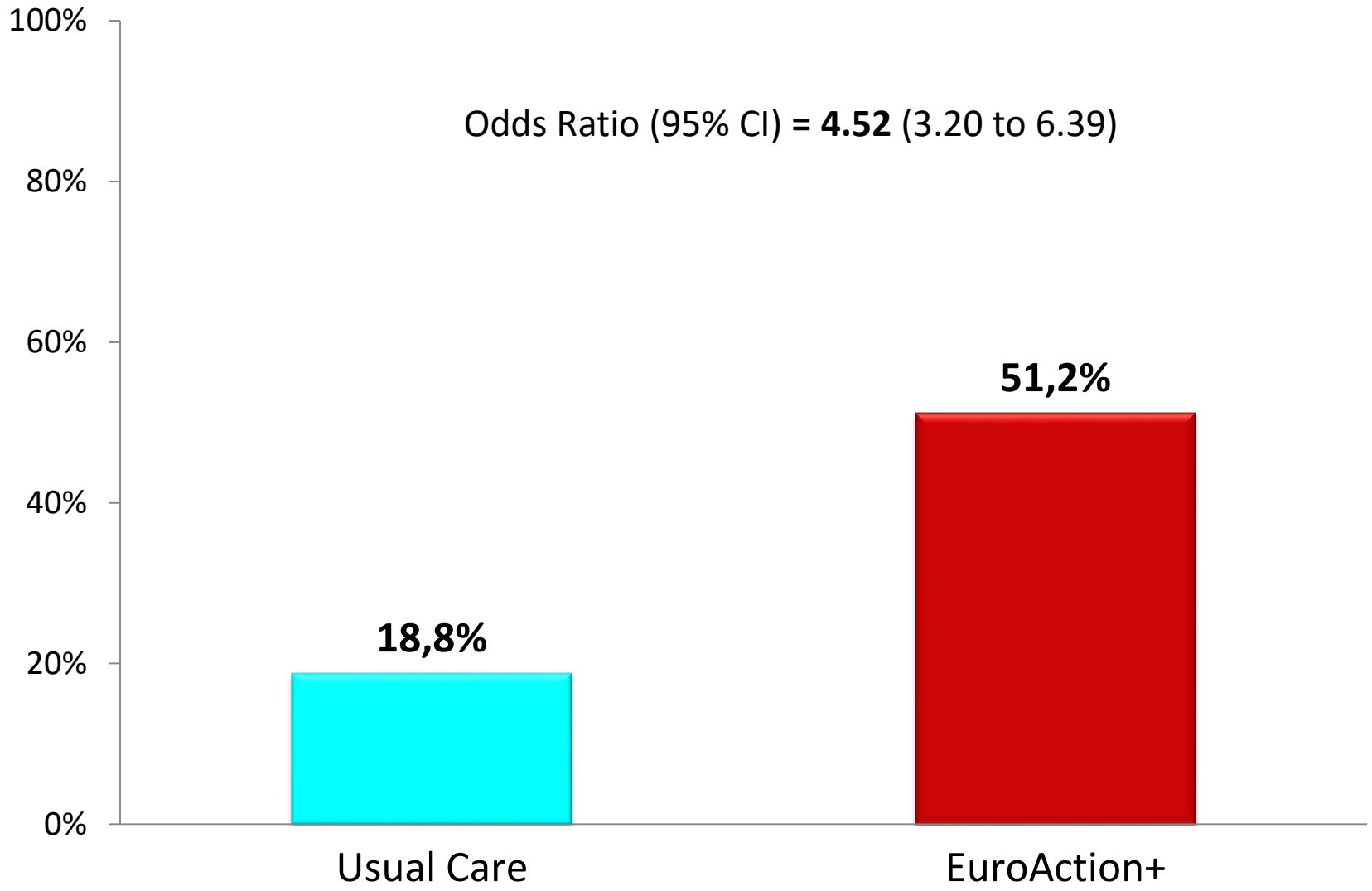
American Nurses' Association, Values of Nursing Care Coordination, White paper 2012

What do nurses offer?

Largest health care workforce worldwide

- Ethos of holistic care
- Skills in behavioural counseling and education
- Close working relationship with physicians, familiarity with medicines and monitoring of signs and symptoms
- Familiar with coordinating the MDT to care for patients and families – support patient and family centred care
- Can be trained to follow care protocols and deliver multidisiciplinary interventions
- Can manage medications (prescription, titration and promote adherence)
- Can promote self management and patient and family centred care

EUROACTIONplus varenicline: Smoking abstinence for last 7 days confirmed by breath CO <10ppm



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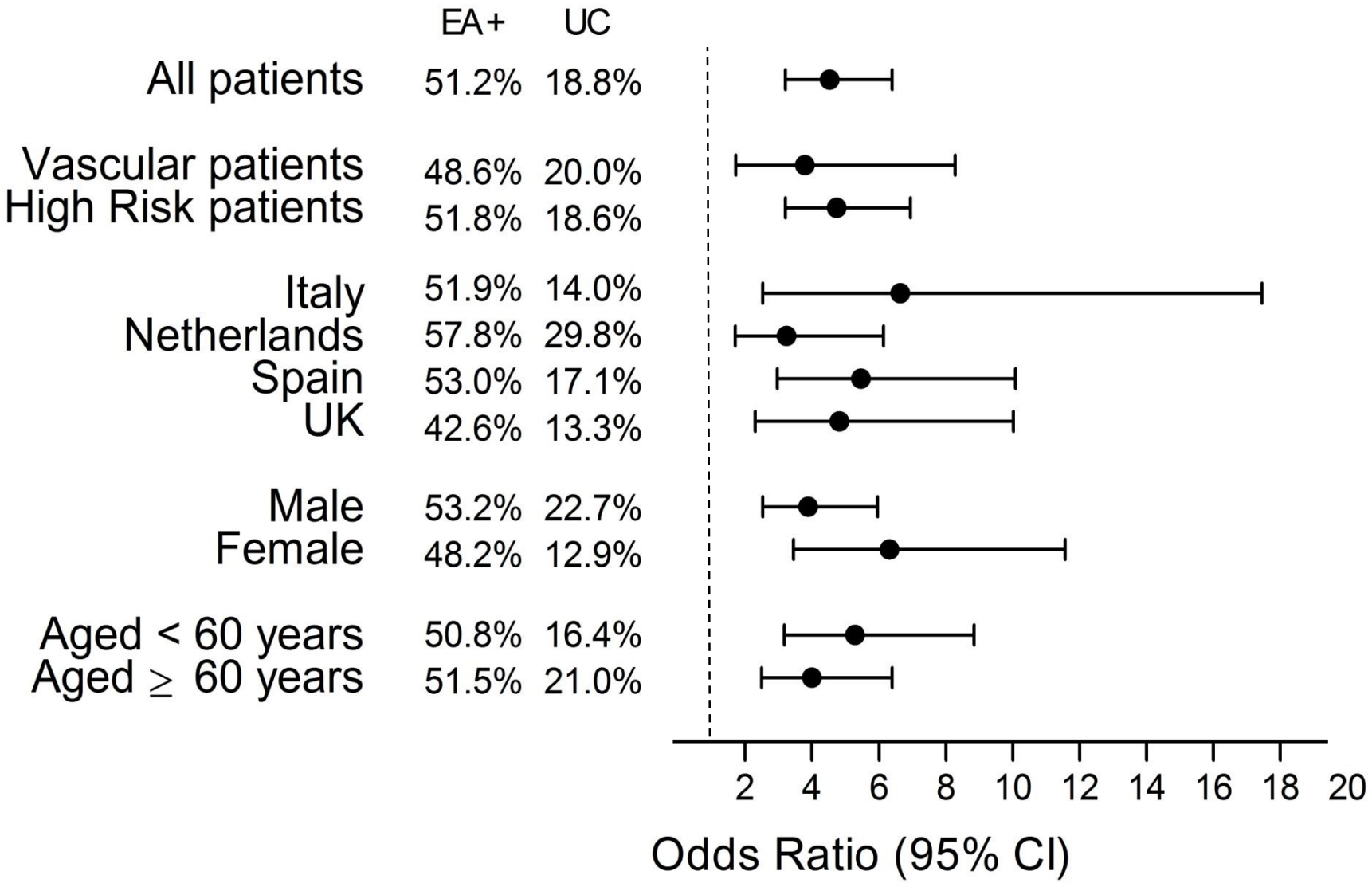
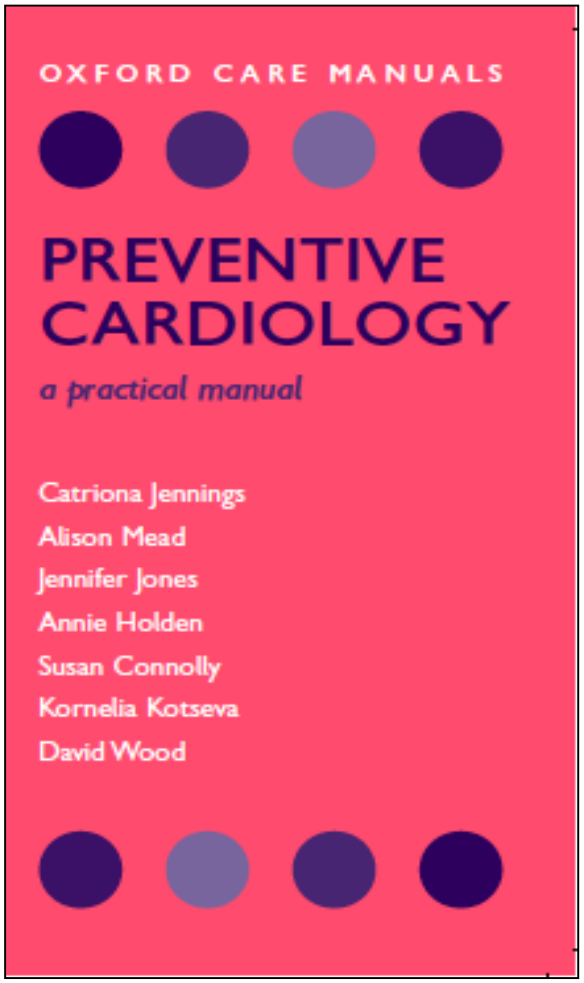


Conclusions

- It is important to reduce risk in individuals at moderate risk of developing CV disease in order to reduce need for medications and avoid worsening of health status
- Interdisciplinary patient centred multifactorial interventions are required to address cardiovascular risk
- Fidelity of delivery of behaviour change techniques is an imperative in implementing behaviour change interventions
- Need for awareness of environmental, psychological and political context with regard to Behaviour change
- Involving families can facilitate behavioural changes
- Appropriately trained nurses are effective in coordinating behavioural change initiatives


OXFORD CARE MANUALS
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a practical manual
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Alison Mead
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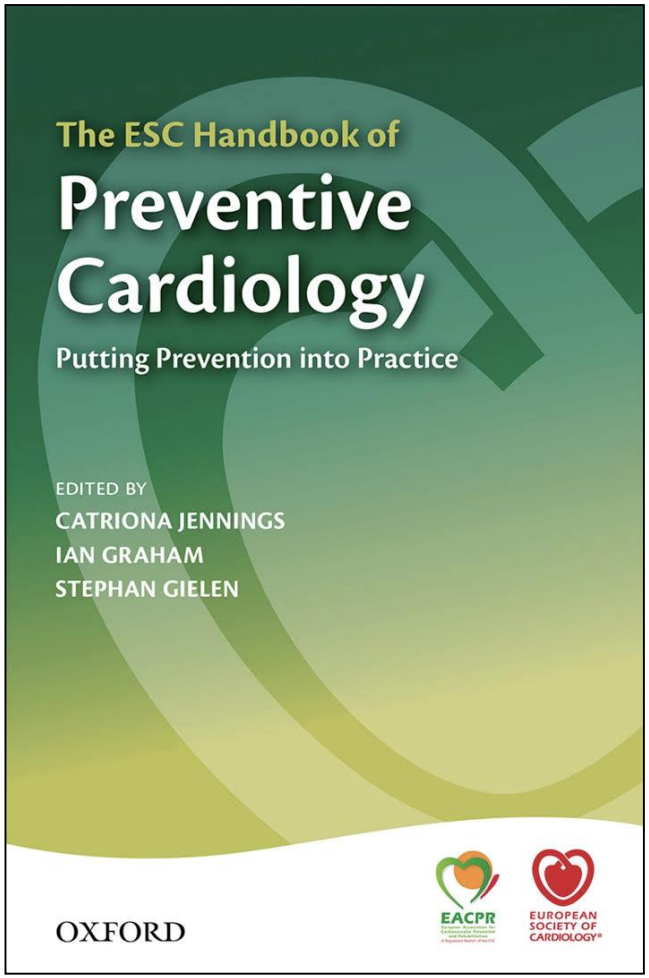
The ESC Handbook of
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Putting Prevention into Practice
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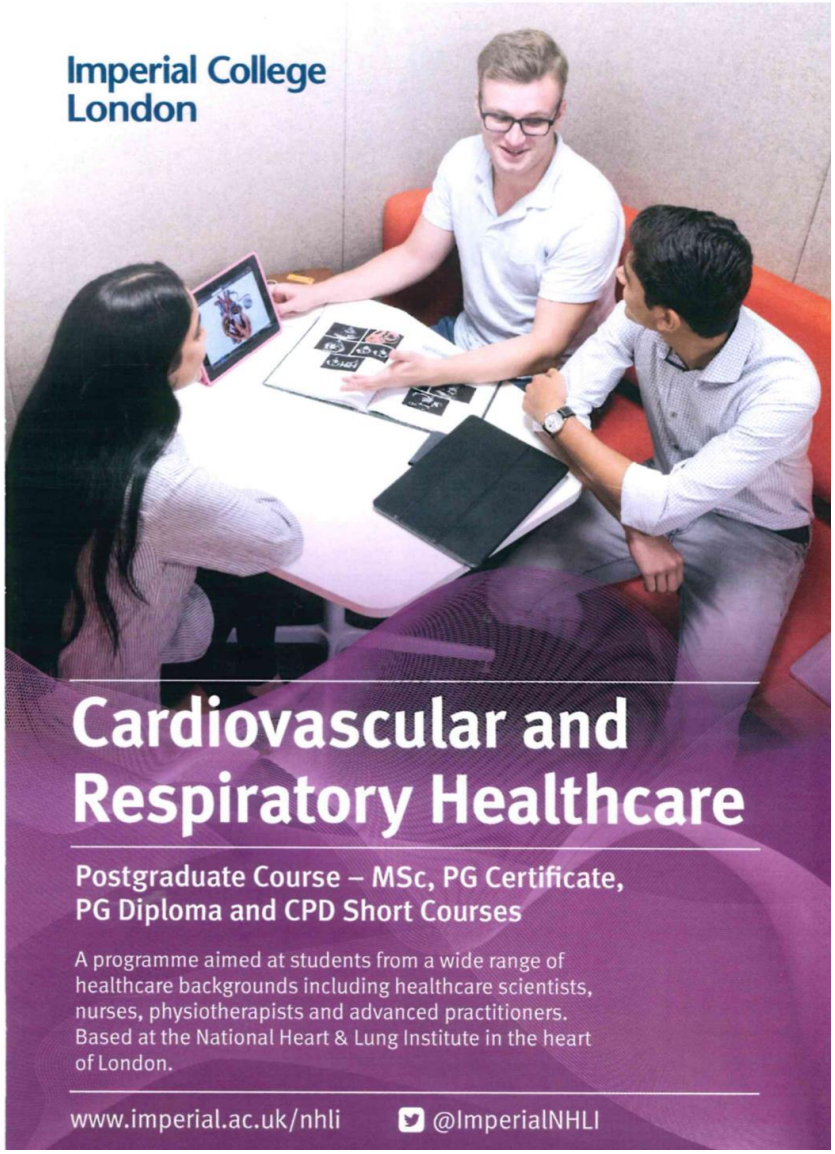

http://www.imperial.ac.uk/study/pg/medicine/cardiovascular-healthcare/