ODHIN

Optimizing delivery of health care interventions

http://www.odhinproject.eu/

1: Introduction to the ODHIN project on translation of new evidence -based clinical practices into health service provision.

Antoni Gual

A project on implementation & dissemination strategies

THEME [HEALTH.2010.3.1-1]
[Better understanding of dissemination and implementation strategies. FP7-HEALTH-2010-two-stage]

Grant agreement for: Collaborative project*

Annex I - "Description of Work"

Project acronym: ODHIN

Project full title: " Optimizing delivery of health care interventions "

Grant agreement no: 259268

Date of preparation of Annex I (latest version): 2010-06-15

Date of last change: 2010-06-15

Main aims

- ODHIN uses the implementation of IBI programmes for hazardous and harmful alcohol consumption in PHC as a case study.
- ODHIN is a Europe wide project involving 19 research institutions from 9 European countries devoted to optimize the delivery of health care interventions by understanding how better to translate the results of clinical research into every day practice.

Odhin partners

INSTITUTION	COUNTRY
Fundacio Privada Clinic per a la Recerca Biomedica	Spain
Stichting Katholieke Universiteit	Netherlands
The University of Sheffield	United Kingdom
University of York	United Kingdom
Azienda per i Servizi Sanitari n° 2	Italy
University of Newcastle upon Tyne	United Kingdom
King's College London	United Kingdom
Goeteborgs Universitet	Sweden
Linkopings Universitet	Sweden
Generalitat de Catalunya	Spain
Panstwowa Agencja Problemow Alkoholowych	Poland
University College London	United Kingdom
Univerza v Ljubljani	Slovenia
Instituto da Droga e da Toxicodependencia	Portugal
Istituto Superiore di Sanita	Italy
Universiteit Maastricht	Netherlands
Statni Zdravotni Ustav	Czech Republic
Pomorska Akademia Medyczna w Szczecinie	Poland
Warszawski Uniwersytet Medyczny	Poland

Work packages

WP 1 - Management and coordination

WP 2 - Systematic literature study

WP 3 - Cost effectiveness

WP 4 - Surveys

WP 5 - Stepped cluster

WP 6 - Assessment tool

WP 7 - From science to policy

WP 2 - Systematic literature study

- Systematic review investigating the impact of different behavioural, organizational and financial strategies in changing provider behaviour across a range of clinical lifestyle interventions.
- First step based on the Knowledge of Implementation Programme (KIP) report, updated by searching Pubmed and Cochrane Library till April 2011. Papers on 'Financial', 'Continuing Medical Education', 'e-health', or multifaceted studies including one of these strategies related to lifestyle prevention are included.
- Step 2: Individual papers reporting the impact of organizational and financial strategies in changing provider behaviour concerning hazardous and harmful alcohol consumption. (PRISMA guidelines)
- Step 3: The outcomes of our review on hazardous and harmful alcohol consumption are compared with systematic literature reviews on other lifestyle issues (ie, smoking, exercise, diet)

WP 3 - Modelling the Cost-Effectiveness of Screening & BI

- To model the cost-effectiveness of SBI in several EU countries (UK, Italy, Netherlands & Poland)
- An Adaptation of the Sheffield Alcohol Policy Model
- Preliminary results:
  - Even under the most pessimistic assumptions, a programme of SBI in Italy is estimated to be highly cost-effective
  - Policy would still be cost-effective even if GPs were paid €60 for each intervention delivered

WP 4 – Survey of GPs

- Based on the WHO phase III and SAAPPQ questionnaires
- Performed in 9 countries, with a total sample of 2.435 GPs

Potential barrier to implementation of early alcohol intervention	Agreement
Doctors are just **too busy** dealing with the problems people present with	64.3%
Doctors are **not trained** in counselling for reducing alcohol consumption	52.1%
Doctors believe that alcohol counselling involves family and wider social effects, and is therefore too difficult	49.7%

WP 6 – Assessment tool

- Aim: to describe available services for the management of hazardous and harmful alcohol consumption on the primary health sector
- Semi-structured questionnaire based on the instrument developed in the PHEPA project, including 7 areas:
  - presence of a country coalition of partnership,
  - community action and media education,
  - health care infrastructure
  - support for treatment provision
  - intervention and treatment (availability and accessibility),
  - health care providers (clinical accountability and treatment provision),
  - health care users (knowledge and help seeking behaviour).
- Nine countries. Ten key informants per country.

Summary

- Odhin is an important European research effort to advance in the implementation of effective clinical tools
- Alcohol is taken as a case study and our results should be helpful for the implementation of other effective treatments
- The cluster randomized factorial trial is the core element of Odhin (WP 5)

Thank You!

Comments / questions?

2: Design of the ODHIN Study

Preben Bendsen and Fredrik Spak

Work package 5

The overall **objective** is to study a number of factors that might increase implementation of evidence-based methods of identification and brief intervention for excessive alcohol consumption in routine primary health care.

WP5

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More specifically, this work package examines:

1. The effect of Continuous Medical Education (CME) to PHC providers
2. The effect of financial reimbursement to PHC providers as a pay-for-performance of brief alcohol interventions
3. Whether an alternative internet based method of delivering brief intervention can increase the proportion of patients reached
4. If one implementation strategy will give an added value to one already enforced.

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Proceedings

1. Invitation
2. Cluster randomization
3. Meetings with the providers – signing an agreement
4. Education
5. Intervene and register

8 groups, WP 5 ODHIN

Group	CME (education)	Economic re-imbursement	BI over internet
1	-	-	-
2	+	-	-
3	-	+	-
4	-	-	+
5	+	+	-
6	+	-	+
7	-	+	+
8	+	+	+

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Overview over the ODHIN WP5

4 weeks baseline measurement

Starts with information meeting and enrollment of participants

New meeting, about 30 min, informing about randomized group

12 weeks intervention

One or two educational sessions during the first and the third weeks (unless control group) and telephone follow-up third week

6 months without *contact* with ODHIN research group, BI continued

4 weeks follow-up

Proceeding start of follow-up short contact to check availability of material

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Enrollment

Somewhat different in the participating countries

Intention

1. To collect the material in 2013 with sequential enrollment of units
2. Units have several providers and at least 5000 listed patients
3. Eligible providers: all providers with independent patient contacts

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I. Enrollment, outcome

More difficult than foreseen, but 120 units joined

Data collection extended to June 2014

I. Size:

Power revealed the need for

120 Primary care centers

Meaning:

3 units in each of the eight groups in each country

15 units in each group in between the countries

24 units in each participating country

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Measurements

1. Staff activity on screening and delivering brief advice on alcohol is measured with tally-sheets or electronic records

2. Alcohol consumption is measured with AUDIT-C.

3. SAAPPQ (baseline, end of intervention period and end of follow-up) (10-item alcohol attitude questionnaire, Anderson)

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Brief intervention: *(Please place a X in following boxes if yes, more than one answer possible)*

- ❑ Oral Brief Advice given, please give a time estimation: .... minutes
- ❑ Patient Leaflet given
- ❑ e-BI information given to patient
- ❑ Patient referred to other provider in practice for brief intervention
- ❑ Patient referred to other provider outside practice for brief intervention
- ❑ Other ....
- ❑ Time did not allow, but ❑ I made follow-up appointment
- ❑ Patient declined
- ❑ Patient reinforced about keeping low risk drinking habits

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Specifics

1. Brief intervention:

A. Counceling session: 5-15 minutes. Principles of , FRAMES, 5A

Follow national guidelines or PHEPA –manual (Poland)

B. E-BI groups: different modules in different countries adjusted to locally existing advice programs where available.

2. Economic incentives

A. per delivered screening,
B. per delivered advice. Maximum sum for each unit

C. Research fee. Not all countries

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Specifics, cont.

1. 3. Written materials: locally available material adhering national guidelines (or PHEPA principles)

4. e-BI e-BI information given to patient, anonymous but activity measured via code. Provider activity measured.

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Protocol is described in Myrna N Keurhorst et al.. Implementation Science 2013, 8:11

WP5

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Thank You!

Comments / questions?

3: ODHIN baseline and some preliminary results

Peter Anderson and Lidia Segura

In this presentation, we will:

1. Describe the attitudes of the primary health care providers at baseline

2. Describe the screening and brief advice rates at baseline

3. Describe changes in screening and brief advice rates during the 12 week implementation period compared with the baseline for the Catalan sample.

In this presentation, we will:

1. Describe the attitudes of the primary health care providers at baseline

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Attitudes were measured using the **Short Alcohol and Alcohol Problems Perception Questionnaire** (SAAPPQ, Anderson & Clement 1987) , which contains ten items to which respondents are invited to indicate agreement or disagreement on a 7 point scale from 1 to 7.

The SAAPPQ measures two domains:

- ***Role Security***, which includes 4 items with a neutral score (neither agree nor disagree) of 16
- ***Therapeutic Commitment,*** which includes 6 items with a neutral score (neither agree nor disagree) of 24

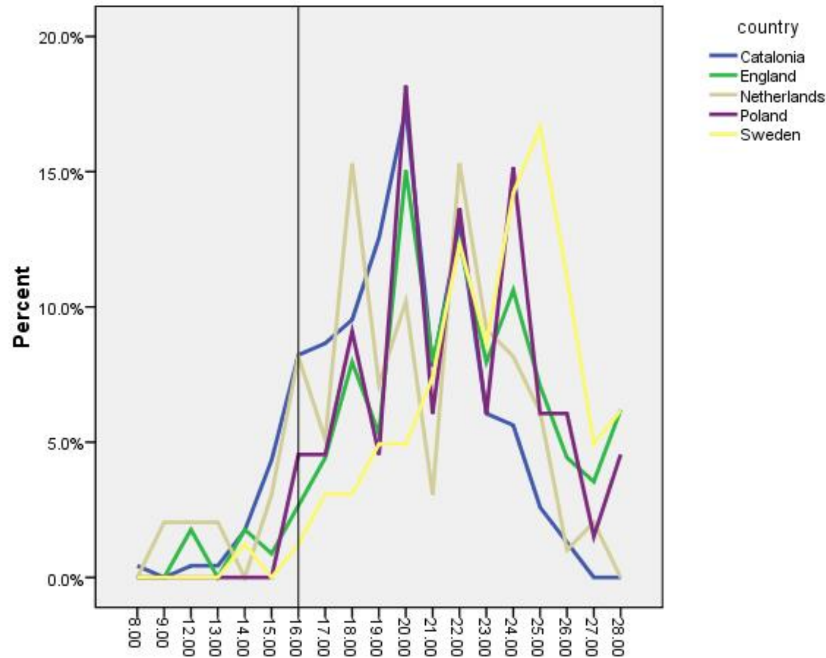
Examples of ***Role Security*** items:

- I feel I have the right to ask patients questions about their drinking when necessary
- I feel I can appropriately advise my patients about drinking and its effects

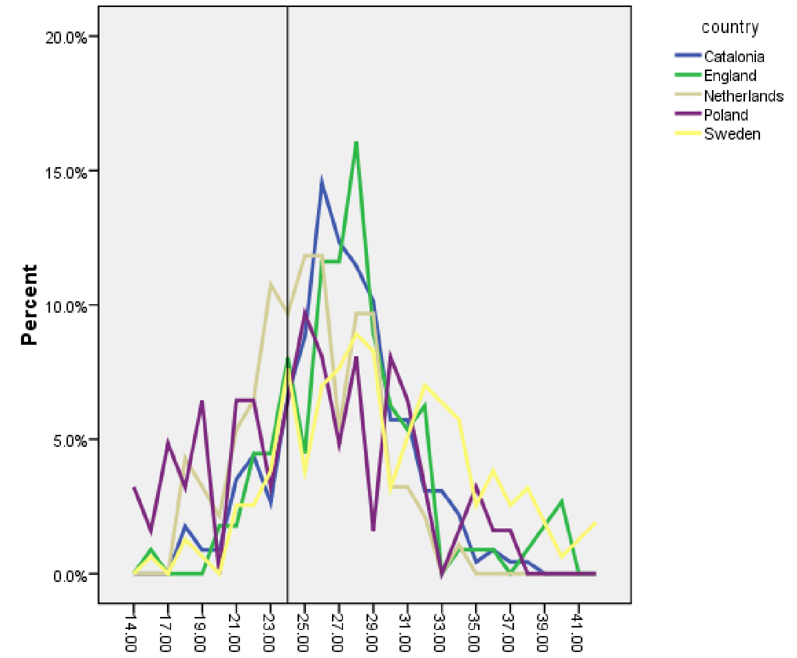
Examples of ***Therapeutic Commitment*** items:

- I feel I do not have much to be proud of when working with drinkers
- Pessimism is the most realistic attitude to take towards drinkers

Attitudes

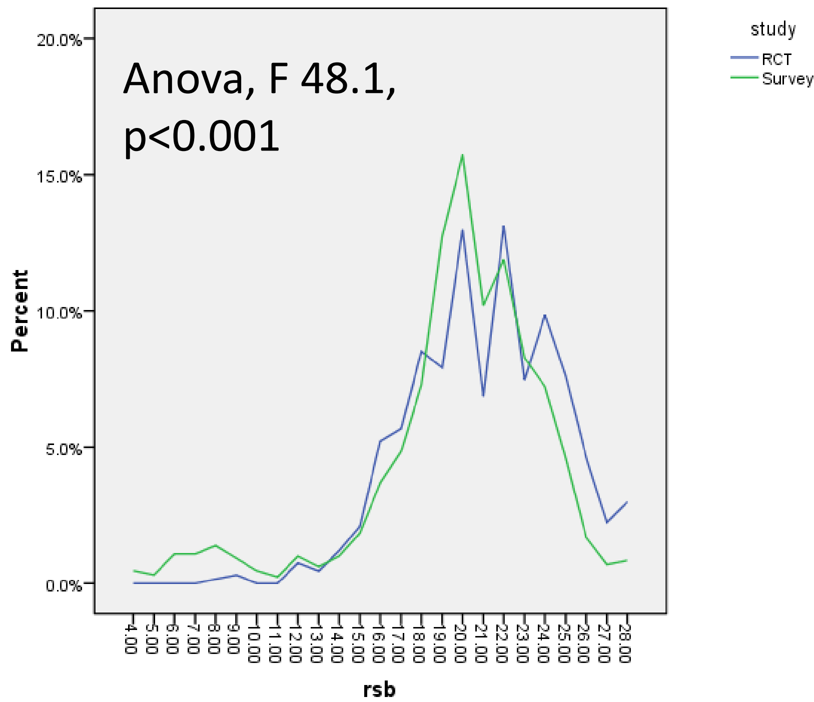


Role Security. Black vertical line, neither secure or insecure.

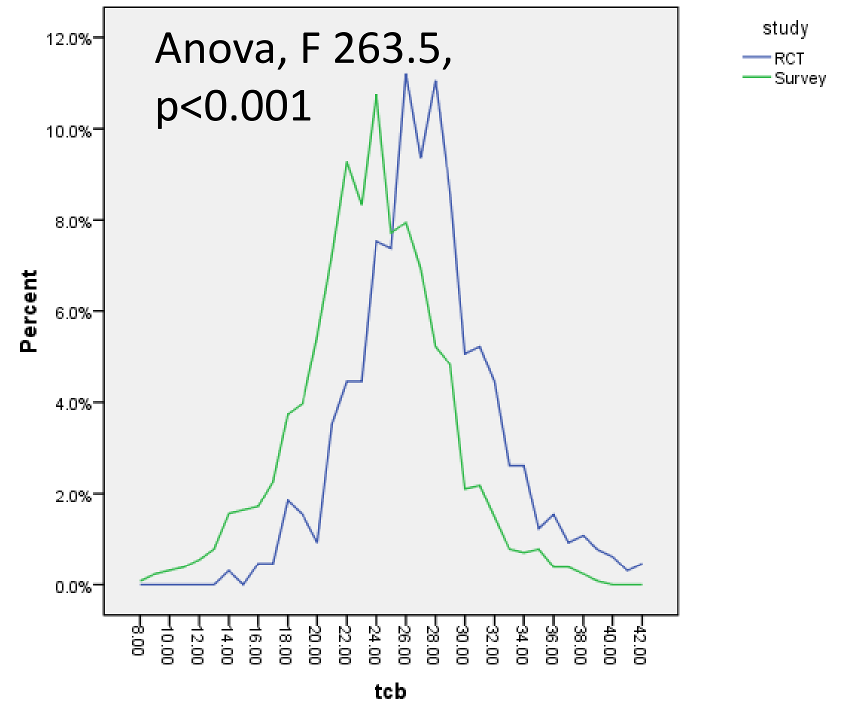


Therapeutic Commitment. Black vertical line, neither committed or uncommitted.

Attitudes



Role Security.



Therapeutic Commitment.

In this presentation, we will:

1. Describe the attitudes of the primary health care providers at baseline

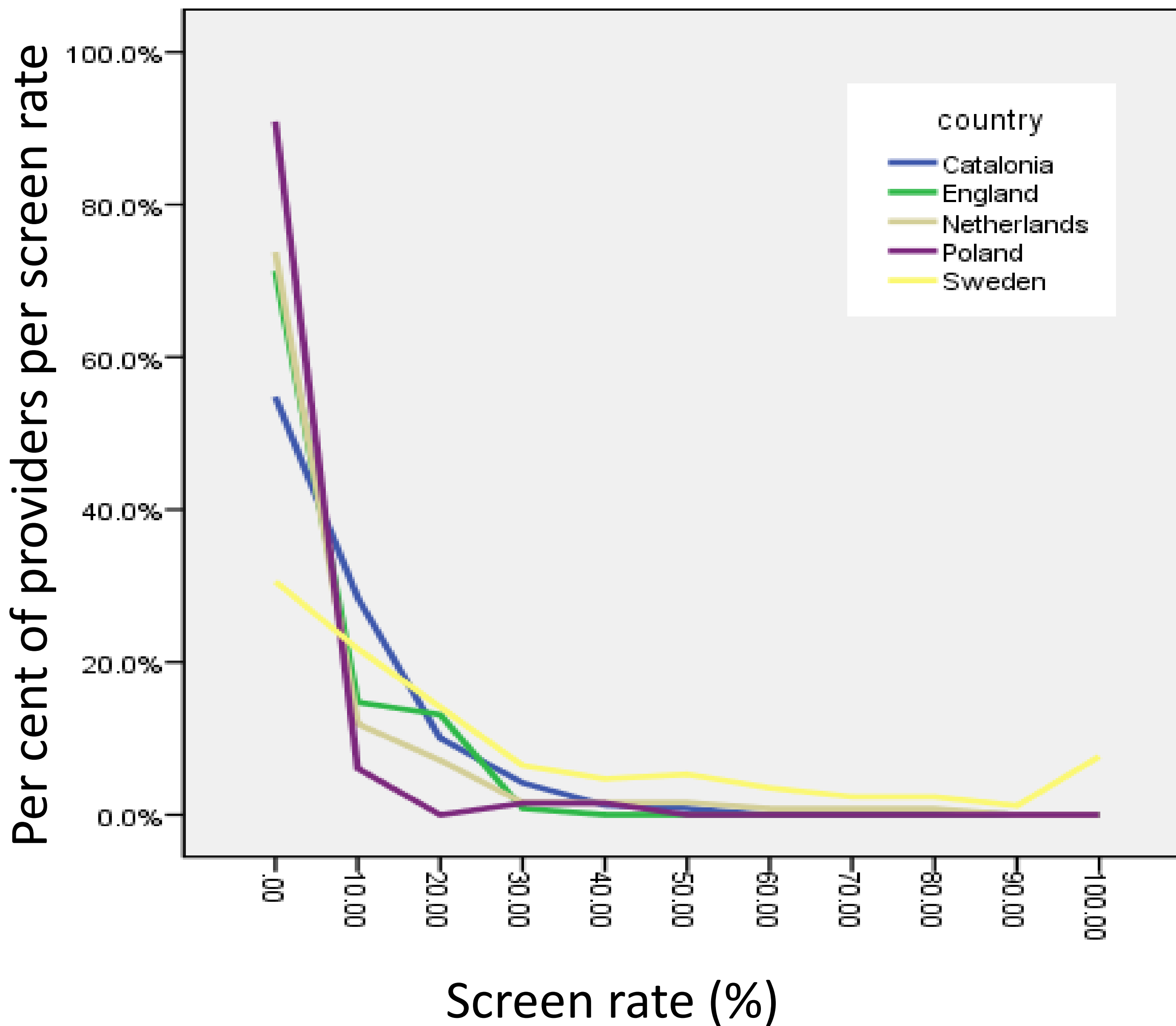
2. Describe the screening and brief advice rates at baseline

3. Describe changes in screening and brief advice rates during the 12 week implementation period compared with the baseline for the Catalan sample.

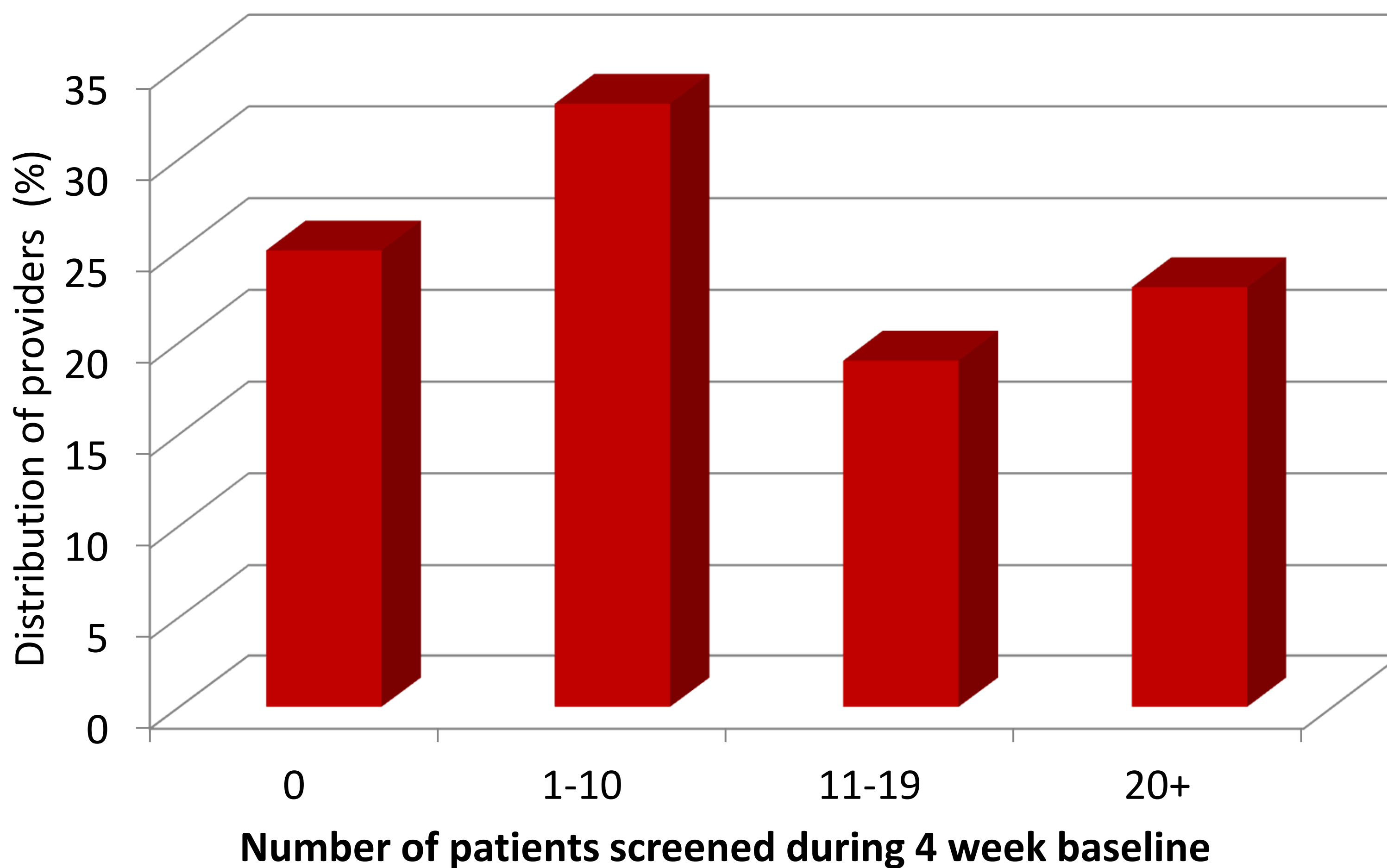
During the 4 week baseline period, 723 providers across the five countries gave 182,000 consultations.

They undertook screening in 13,000 of these consultations, 1 in 14.

The higher the consultation rate per provider, the lower the screening rate (Pearson Correlation, -0.182, $p<0.001$).


Per cent of providers per screen rate
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
country
Catalonia
England
Netherlands
Poland
Sweden
.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
Screen rate (%)

Distribution of providers (%) for numbers of patients screened (n) during 4 week baseline



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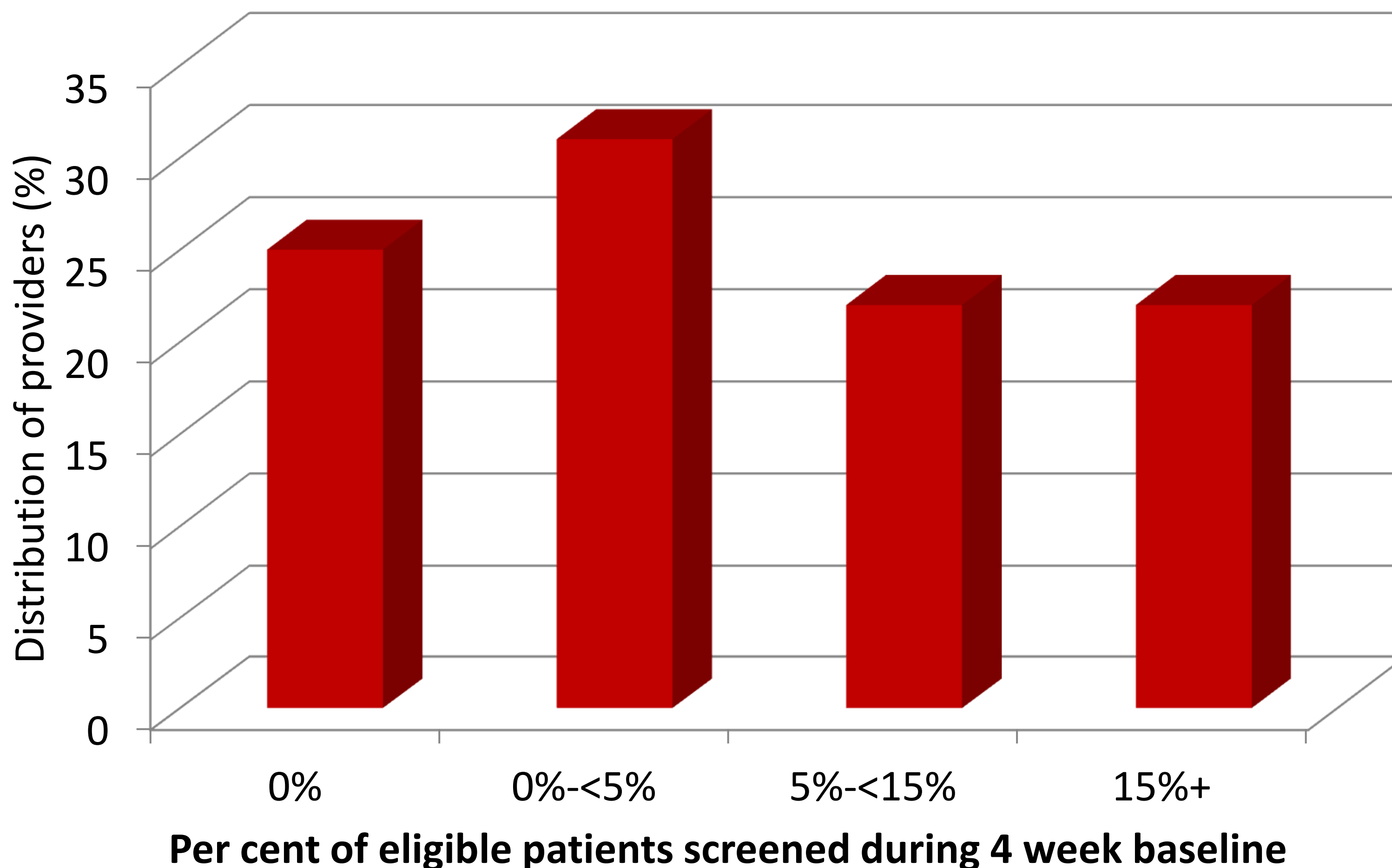
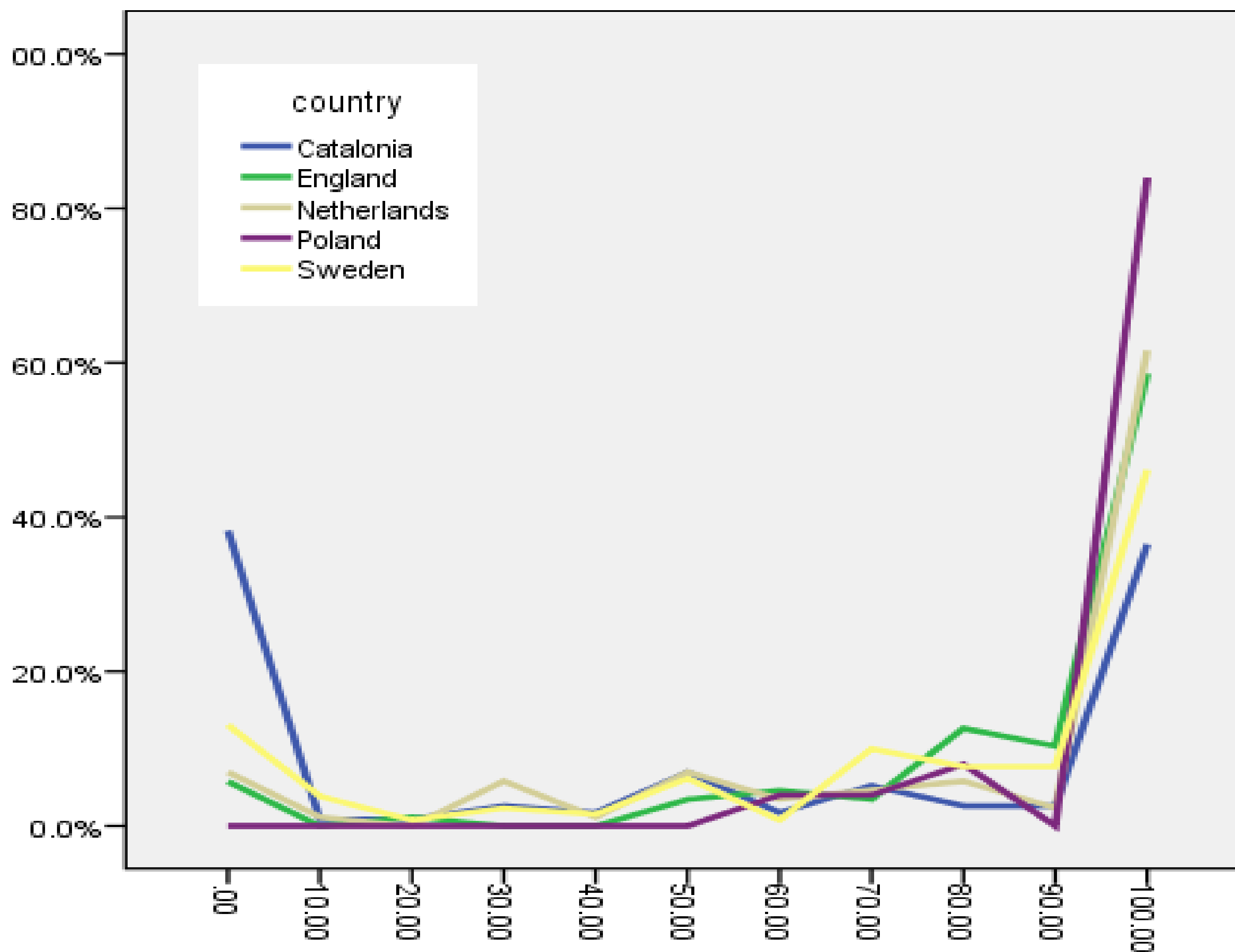
Distribution of providers for per cent of eligible patients screened during baseline period

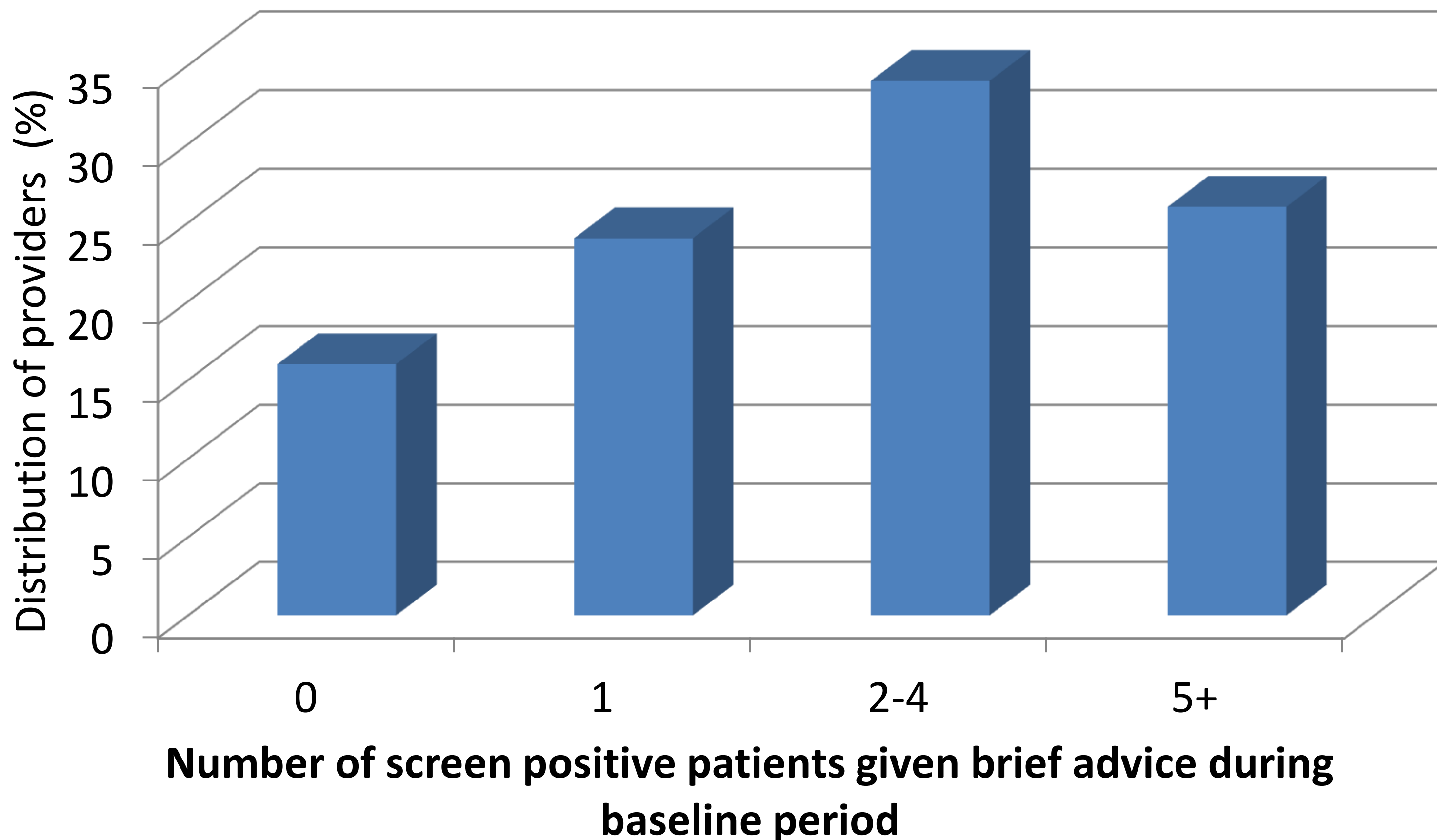


Per cent of providers per brief advice rate

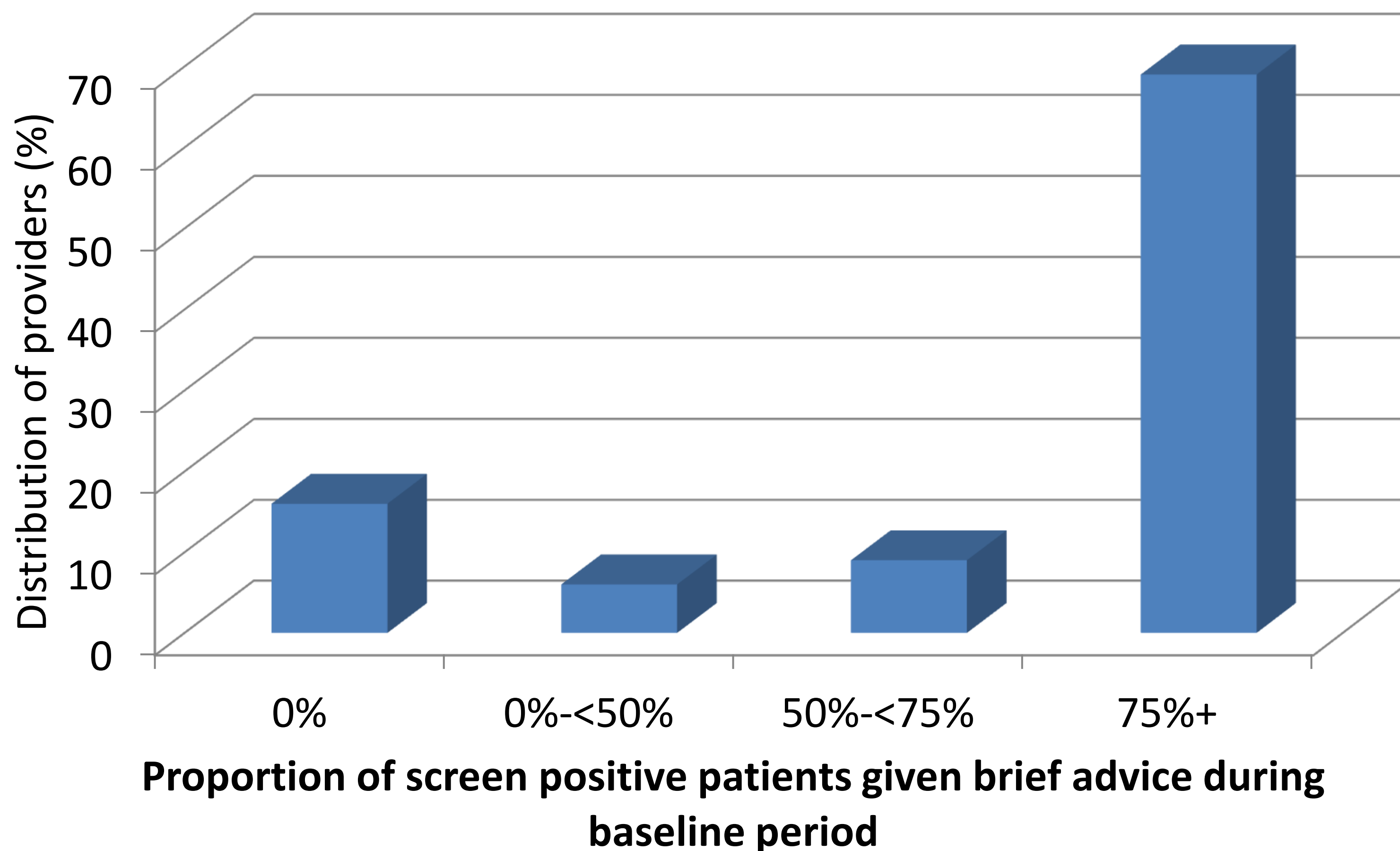


Brief advice rate

Distribution of providers for number of patients who are screen positive who were given brief advice during baseline period



Distribution of providers for proportion of patients who are screen positive who were given brief advice during baseline period



There was no correlation between screen positive rate per provider and advice giving rate per provider.

But, the lower the screen rate per provider, the higher the advice giving rate per provider (Pearson Correlation, -0.22, $p<0.001$).

Neither role security nor therapeutic commitment predicted screening rates or brief advice rates.

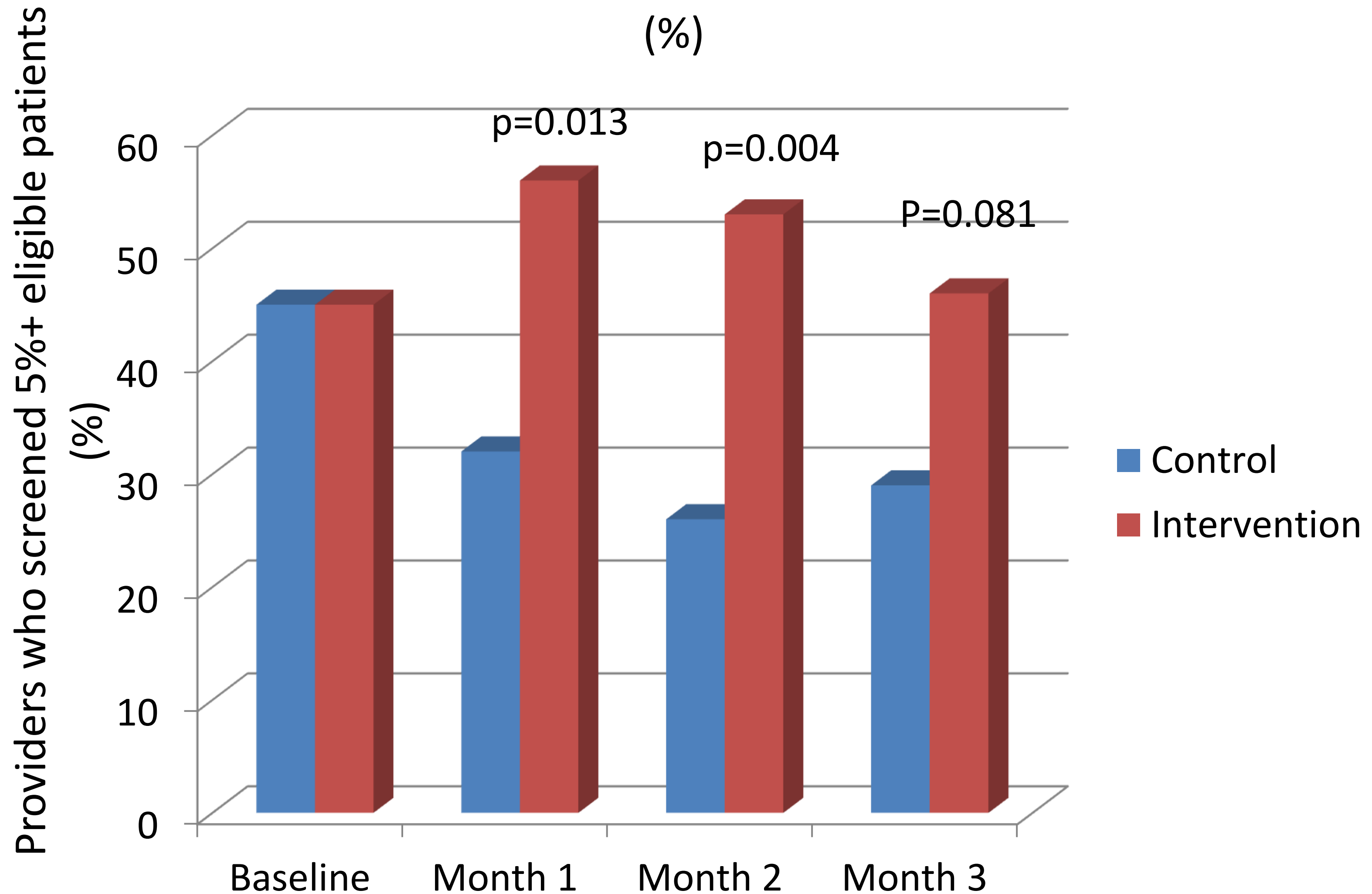
In this presentation, we will:

1. Describe the attitudes of the primary health care providers at baseline

2. Describe the screening and brief advice rates at baseline

3. Describe changes in screening and brief advice rates during the 12 week implementation period compared with the baseline for the Catalan sample.

Catalan follow-up data
Providers who screened 5%+ of eligible patients in each measurement period by control and intervention groups (%)



Catalan follow-up data
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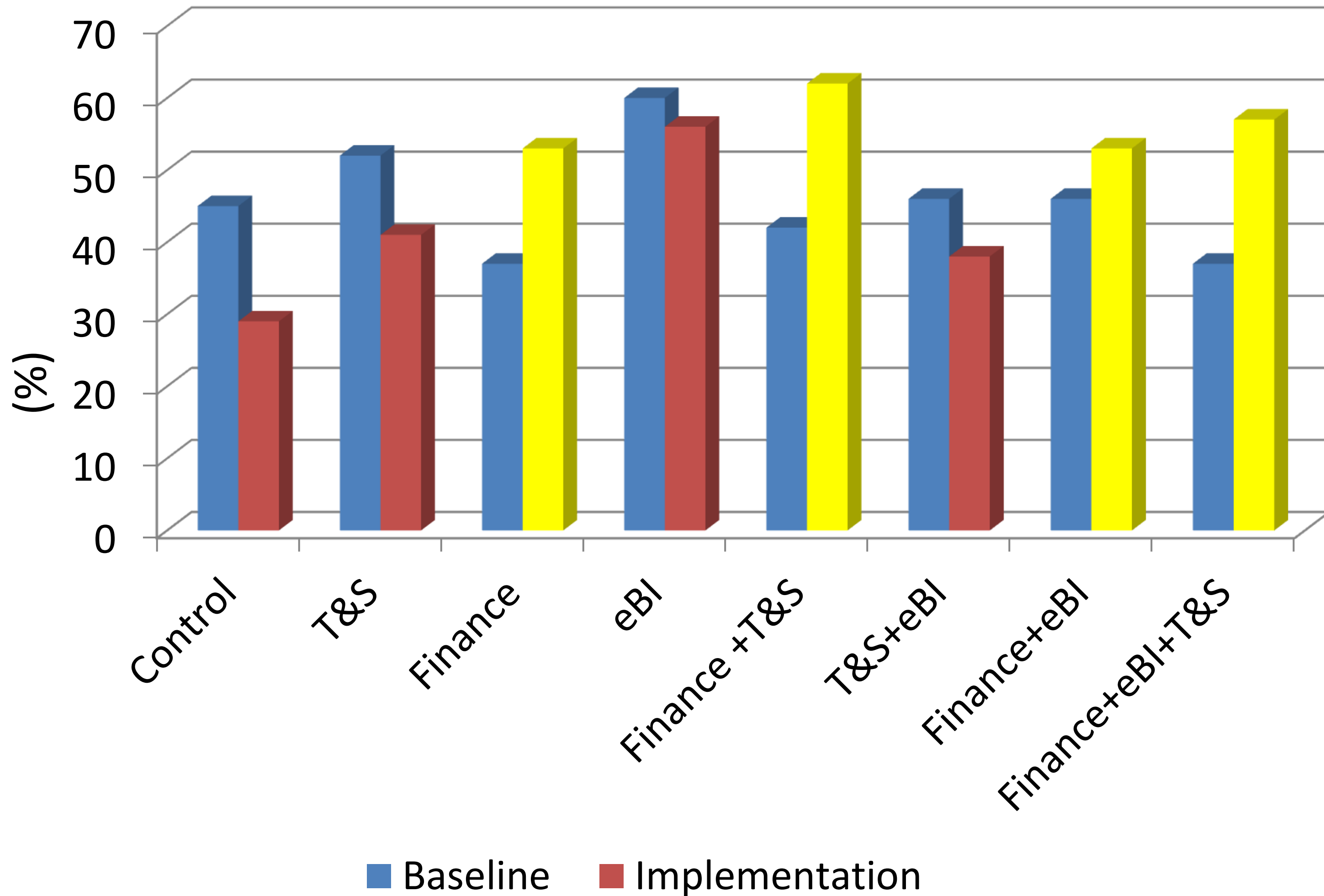

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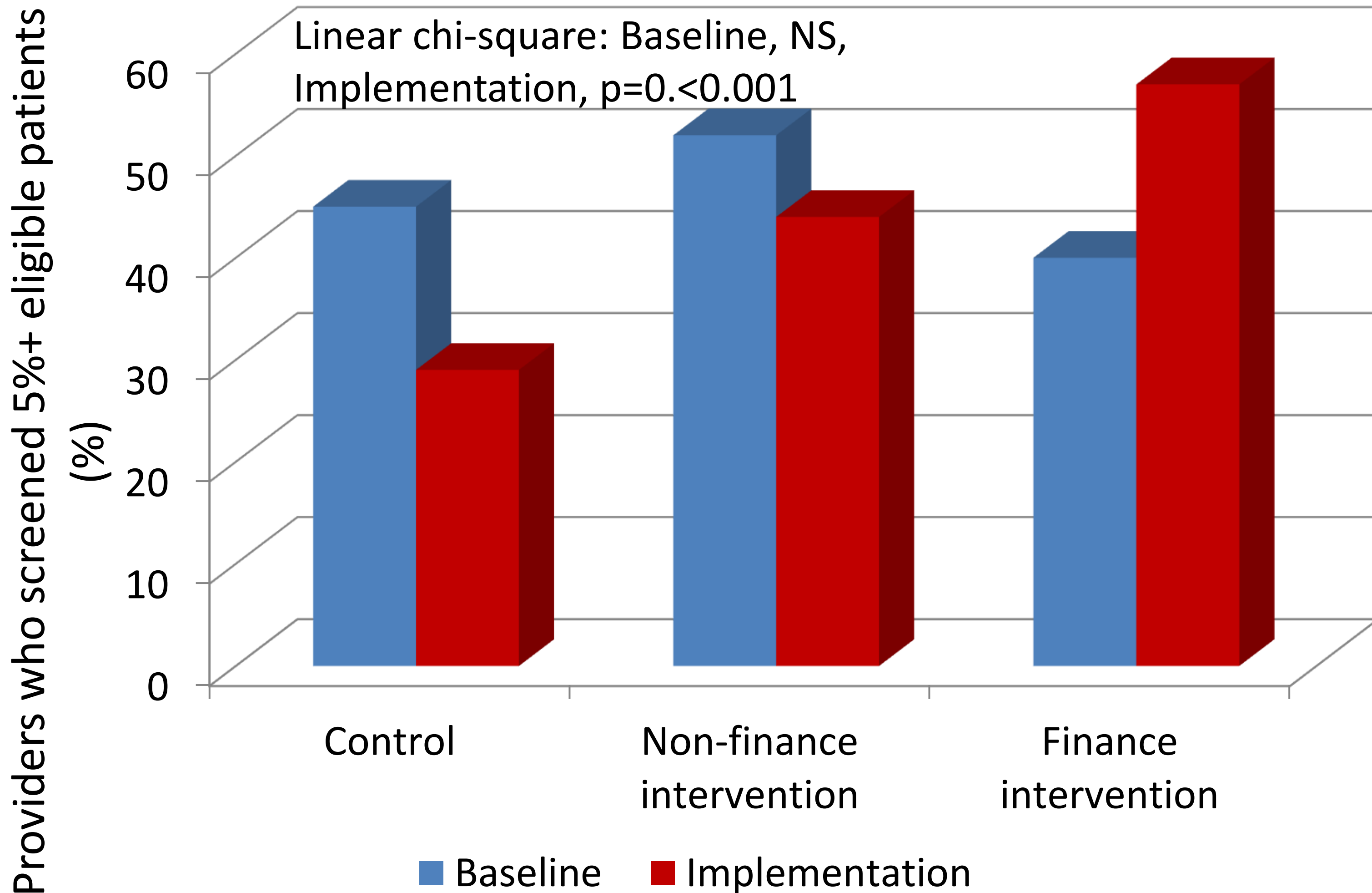
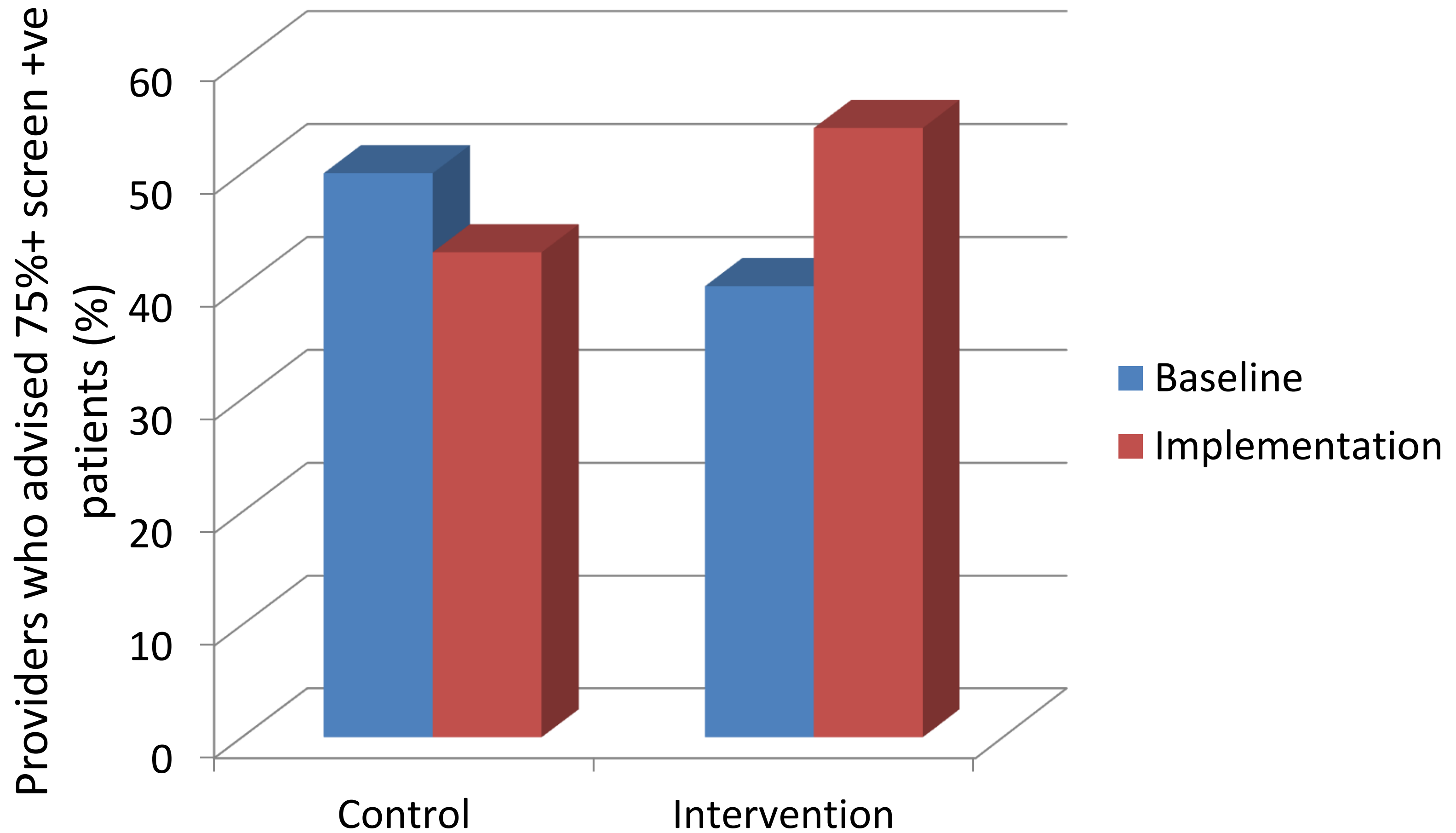
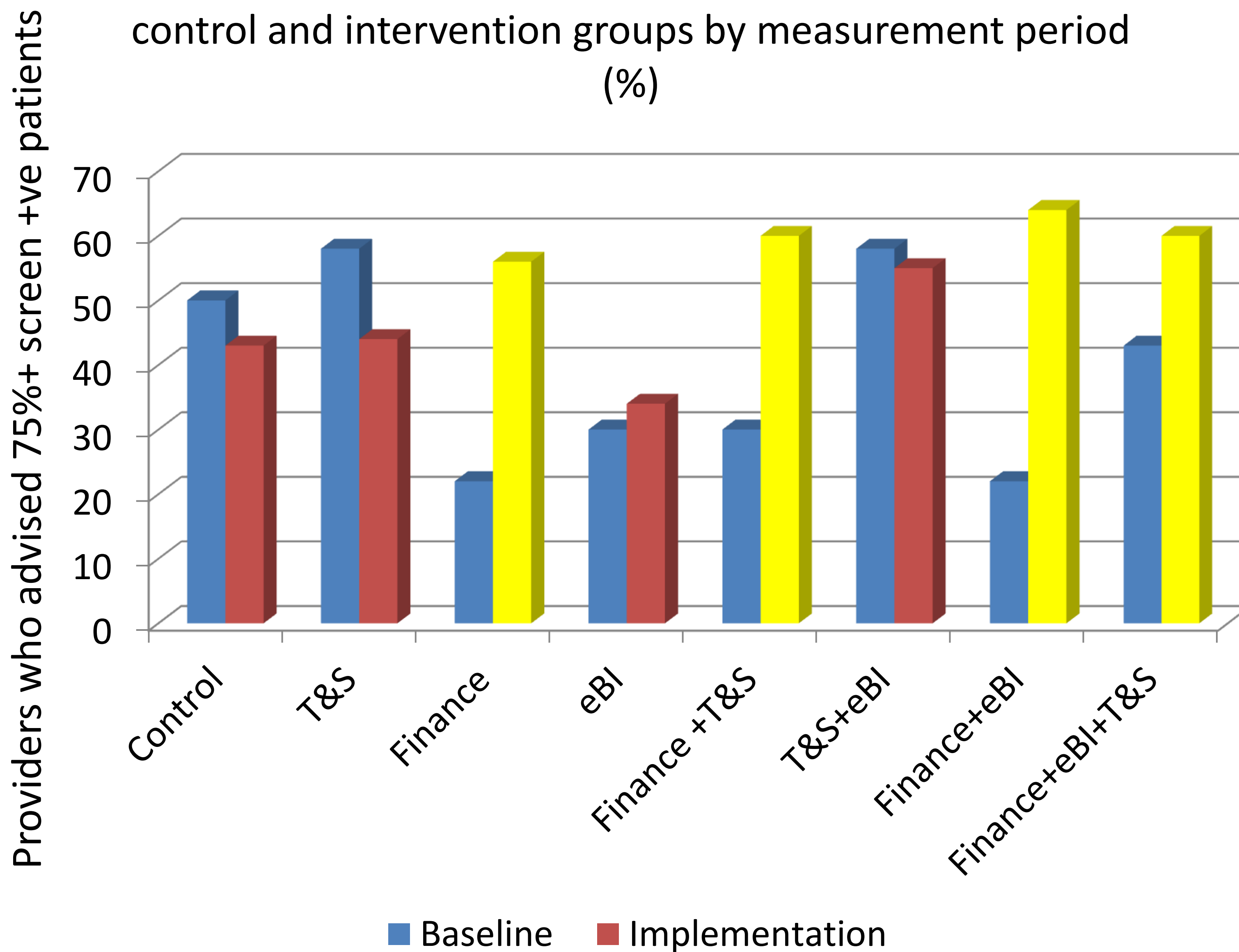


Catalan follow-up data
Providers who advised 75%+ of screen+ve patients in control and intervention groups by measurement period (%)





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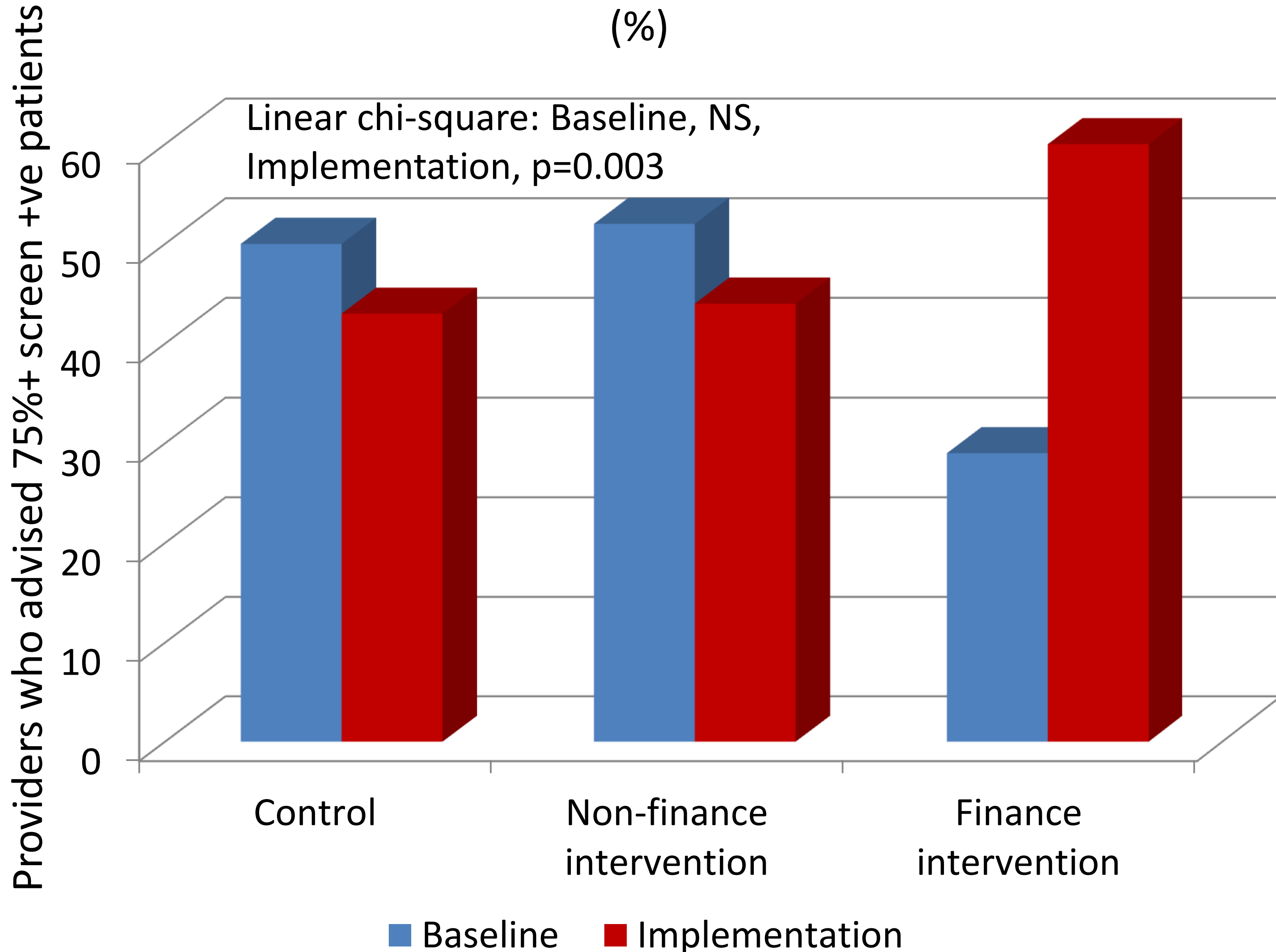
Catalan follow-up data
Providers who advised 75%+ of screen+ve patients in control and intervention groups by measurement period (%)
Providers who advised 75%+ screen +ve patients
0
10
20
30
40
50
60
70
Control
T&S
Finance
eBI
Finance +T&S
T&S+eBI
Finance+eBI
Finance+eBI+T&S
Baseline
Implementation

Catalan follow-up data
Providers who advised 75%+ of screen+ve patients in control and intervention groups by measurement period (%)



Conclusions

- The providers in the trial were quite role secure and therapeutically committed, and more so than a general sample of providers.
- Some three-fifths of providers only screened 10 or fewer patients during the baseline measurement period - less than 5% of eligible patients.
- Some three-fifths of providers gave advice to 2 or more screen positive patients during the baseline measurement period - more than ⅗ of screen positive patients.
- Data from the Catalan sample demonstrated that the interventions increased screening and brief advice rates compared with the control group.
- The providers behaviour followed the money - with the intervention groups receiving financial support being the groups that substantially changed behaviour.

Thank You!

Comments / questions?

4: Scientific Challenges of European Implementation Research

Kathryn Parkinson, Karolina Kłoda
and Myrna Keurhorst

ODHIN

Optimizing delivery of health care interventions

Scientific challenges of European implementation research

Kathryn Parkinson[1], Myrna Keurhorst[2], Karolina Kłoda[3]

[1]Institute of Health & Society, Newcastle University, Richardson Road, Newcastle upon Tyne, NE2 4AX, UK.
[2] Scientific Institute for Quality of Healthcare (IQ healthcare), Radboud University Nijmegen Medical Centre, The Netherlands.
[3]Independent Laboratory of FamilyPhysician Education, Pomeranian Medical University in Szczecin, ul. Rybacka 1, Poland.

RCT on screening and brief advice for hazardous and harmful alcohol use within primary health care

Implementation study: how can we reduce the ‘know-do’ gap
focus on practitioners

Challenges:
- research on alcohol use
- across multiple centres in several countries
- primary health care settings
- different research cultures

Specifically, we have identified threats from undertaking international implementation research:

To science

- Financing of health care systems
- Research protocol (and need for flexibility)

To project cohesion

- Research burden (ethical procedures)
- Research teams
- Delivery of the study
- Publications
- More than one study partner from one country

Threats to science
Health care systems

Funding:

Tax-based

- UK
- Catalonia
- Sweden (small fee per visit)
- Poland (private health-care is common)

Compulsory insurance-based

- Netherlands

Structure:

Independent practitioners – eg in UK

Managed – eg in Catalonia

Threats to science
Research protocol

Cluster trial:
Randomisation possible, blinding not

Provisions to practitioners:
Example 1 - Educational training to include knowledge, skills, attitudes and perceived barriers

Differences in content, duration, delivery and attendance

Example 2 - Financial incentive

Equivalent amounts for equivalent activity but events impact

Data collection:
Paper-based in 4 countries, electronic in 1 country

(Catalonia is managed, so primary care is standardised)

Threats to science
Guideliness for low-risk drinking

Using AUDIT-C; internationally validated but the context of sensible drinking differs:

		UK	Poland	Catalonia	Netherlands	Sweden
National guidelines	**Women** **Men**	≤14 ≤21	No guidelines	≤14 ≤28	≤14 ≤21	<10 <15
					Currently changing	
Screening cut-offs	**Women** **Men**	 ≥5	≥4 ≥5	 ≥5	≥4 ≥5	≥4 ≥5

Threats to project cohesion
Research burden (ethical procedures)

Easy, no problems

Sweden
Netherlands
Catalonia

Extensive and time consuming

UK
Poland

Threats to project cohesion
Research teams

UK	Poland	Catalonia	Netherlands	Sweden
Team: academics and clinician. Field researcher: psychologist	Team: academics, who are also clinicians (GPs) and who are not clinicians, too. Psychologists and pedagogues (educators) working in PARPA.	Team: medical doctors (Psychiatrist, Public Health and GP), psychologists, sociologist, nurse and administrative staff. Workers of FCRB.	Team: academics (health researchers, dietician, nurse, sociologist, GP) and administrative staff. Educators are psychologist and biologist (specialised in motivational interviewing).	Team: academics and clinicians. Physicians, nurses and other staff with individual patients visits, e.g. occupational therapist.

Threats to project cohesion
Delivery of the study

Contact with practices

Via networks:	UK
Directly with PHCU	Poland, Catalonia, Netherlands, Sweden

Training delivered by

Study researcher	UK, Poland, Sweden
Qualified trainers	Catalonia, Netherlands

Instruments

Paper tally sheets	UK, Poland, Netherlands, Sweden
Electronic records	Catalonia

Data entry: automatically (Catalonia) or research staff

Threats to project cohesion
Publications

Best positions: first or last author

- Sweden
- Netherlands
- Catalonia
- UK
- Poland

Threats to project cohesion
Multiple research institutes within one country

All countries each have 2 participating research units

Not only difference across countries, but also within countries

Threats to project cohesion
Publications

A need for

- Study designs and results of clinical and policy relevance.
- Scientifically rigorous and valid pragmatic trial to test whether primary care practices can systematically implement the collection of patient-reported information and provide patients needed advice is mostly important[4].

Lessons incorporated in ODHIN

- Pragmatic and practical approach. Despite the differences, the study partners enrolled 140 PHCU-s, delivered the training and support and still are delivering the study[5,6].

Thank You!

Comments / questions?