Auditing CVD Risk Factors in Secondary Prevention- SURF

A flagship project of the European Association of Preventive Cardiology and of the ESC

Ian Graham, Diederick Grobbee, Min Zhao, Kerstin Klipstein-Grobush, Ilonca Vaartjes, Marie-Therese Cooney

for the SURF investigators

Trinity College, Dublin and University Medical Centre, Utrecht

https://surfriskfactor-audit.com/

The challenge-

How well are risk factors recorded and managed at present in persons with proven CHD?

Clinical audit

"A quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change".

Completing the audit cycle implies implementing change [such as standard operating procedures (SOPs) and care pathways]- and re-auditing to measure the effect of the change.

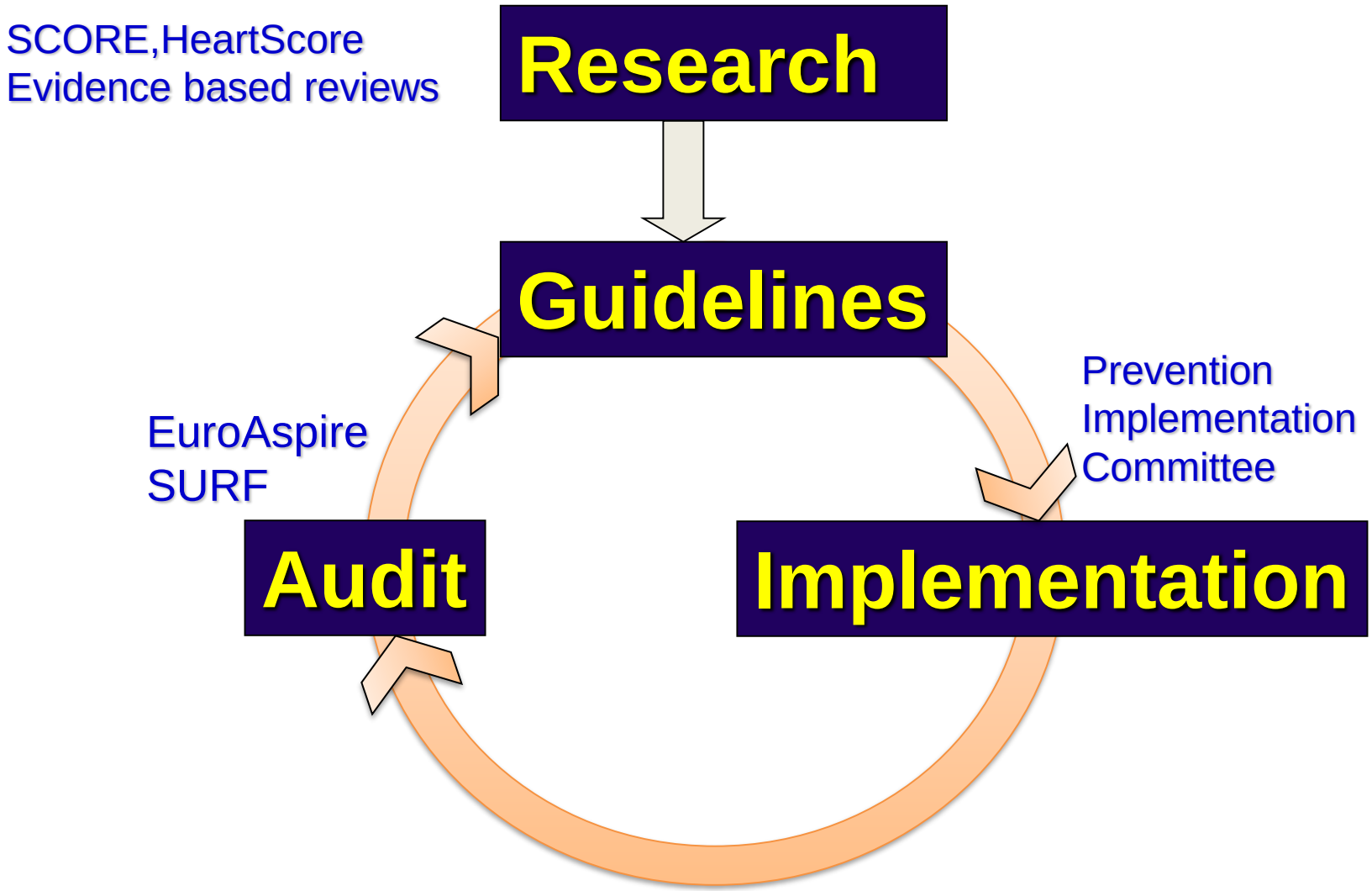
It should be a positive process improvement tool, not a threat or a criticism.

Increasingly it is required for accreditation and training purposes

SURF—Survey of Risk Factors: a simplified audit

Prof. Ian Graham
Trinity College Dublin

Guidelines: Prevention as an example



EuroAspire- the Gold Standard

- Well known European audit of risk factor management
- Two hospitals per country
- Standardised methods, both of data collection and laboratories
- Centralised analysis
- Very detailed assessments
- Attendance at a dedicated clinic/assessment unit might allow selection bias
- Sometimes presented- not by the primary investigators!- as if representative of the whole country
- Major commitment in terms of time and money limits participation to large, well resourced centres
- **Would it be possible to complement EuroAspire with a very simple, quick and economical audit that might be widely applied and represent practice throughout Europe and internationally?**

Audits: EuroAspire and SURF

Both study ACS, CABG, PCI. SURF also includes stable AP

- EuroAspire: Well known, high quality, standardized methodology, detailed, 2 hours per patient. Expensive.
- SURF: Similar diagnostic groups. Core information only, 90 secs per patient. One page data collection sheet, now electronic. Minimal costs.
- SURF data: Demographics, diagnosis, risk factor history, risk factor measurements, drug treatment (classes only)
- The two are intended to be complementary, not in competition, to allow more centres to participate to improve representativeness

- Overall, both show considerable potential for improved risk factor control


SURF
SUrvey of Risk Factors

Outline

- **Aim: SURF CHD**
- **SURF 1**
- **SURF phase II**
- **Other members of the SURF family**

Aim SURF

To simplify the assessment of the recording and control of coronary heart disease risk factors in different countries and regions.

Data collection

Demographics							
Initials:			Date of birth:		Hospital Name:		
Gender:	☐ Male		☐ Female		MRN:		
CHD Category:	☐ CABG	☐ PCI	☐ Acute coronary syndrome	☐ Stable AP	Date of examination:		
Was the patient admitted to hospital in the last year with for a CHD related reason?	☐ Y	☐ No			☐ Public patient	☐ Private patient	

Risk factor history			Most recent risk factor measurements	
Smoking history	☐ Current smoker ☐ Ex smoker ☐ Never smoked		Systolic BP	mmHg
			Diastolic BP	mmHg
			Heart rate	bpm
Physical activity	☐ Less than below ☐ Moderate (walking or equ… to 5 times per week ☐ More than this		Waist circumference	cm
			Height	m
			Weight	kg
At what age did the patient complete full time education?	____ Years		Fasting bloods within 1 year?	☐ Yes ☐ No
			If yes, date of fasting bloods:	
Known history of (Patient was told of diagnosis previously)	Yes / No		Fasting total chol	mmol/l
	☐ ☐	Hypertension	Fasting LDL chol	mmol/l
	☐ ☐	Dyslipidaemia	Fasting HDL chol	mmol/l
	☐ ☐	Diabetes type 2	Fasting triglycerides	mmol/l
	☐ ☐	Diabetes type 1	Fasting glucose	mmol/l
Did the patient ever participate in cardiac rehab?	☐ Yes, fully or in part ☐ No		HbA1C (if diabetic)	%

60-90 seconds!

Medications			
☐ Any anti-platelet	☐ Any beta-blocker	☐ Any ACE inhibitor	☐ Any nitrate
☐ Any statin	☐ Any Ca antagonist	☐ Any diuretic	☐ Any insulin
☐ Any other lipid lowering agent	☐ Any other anti-hypertensive	☐ Any ARB	☐ Any oral hypoglycaemic agent

European Journal of Preventive Cardiology

Original scientific paper

SURF – SUrvey of Risk Factor management: first report of an international audit

MT Cooney[1], Z Reiner[2], W Sheu[3], L Ryden[4], J de Sutter[5], D De Bacquer[6], G DeBacker[6], A Mithal[7], N Chung[8], YT Lim[9], A Dudina[1], A Reynolds[1], K Dunney[1] and I Graham[1] (for the SURF investigators and the Prevention, Epidemiology and Population Science Section of the European Association for Cardiovascular Prevention and Rehabilitation)

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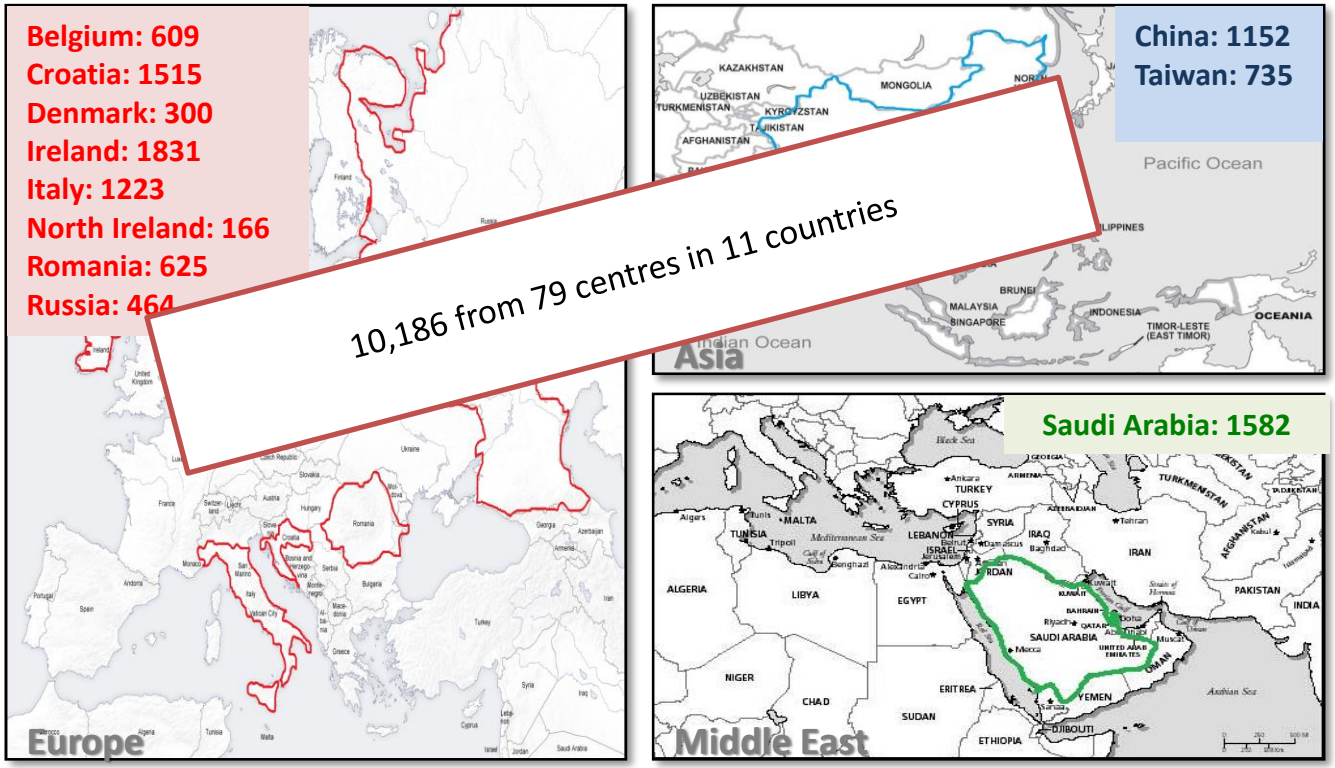
Participating countries



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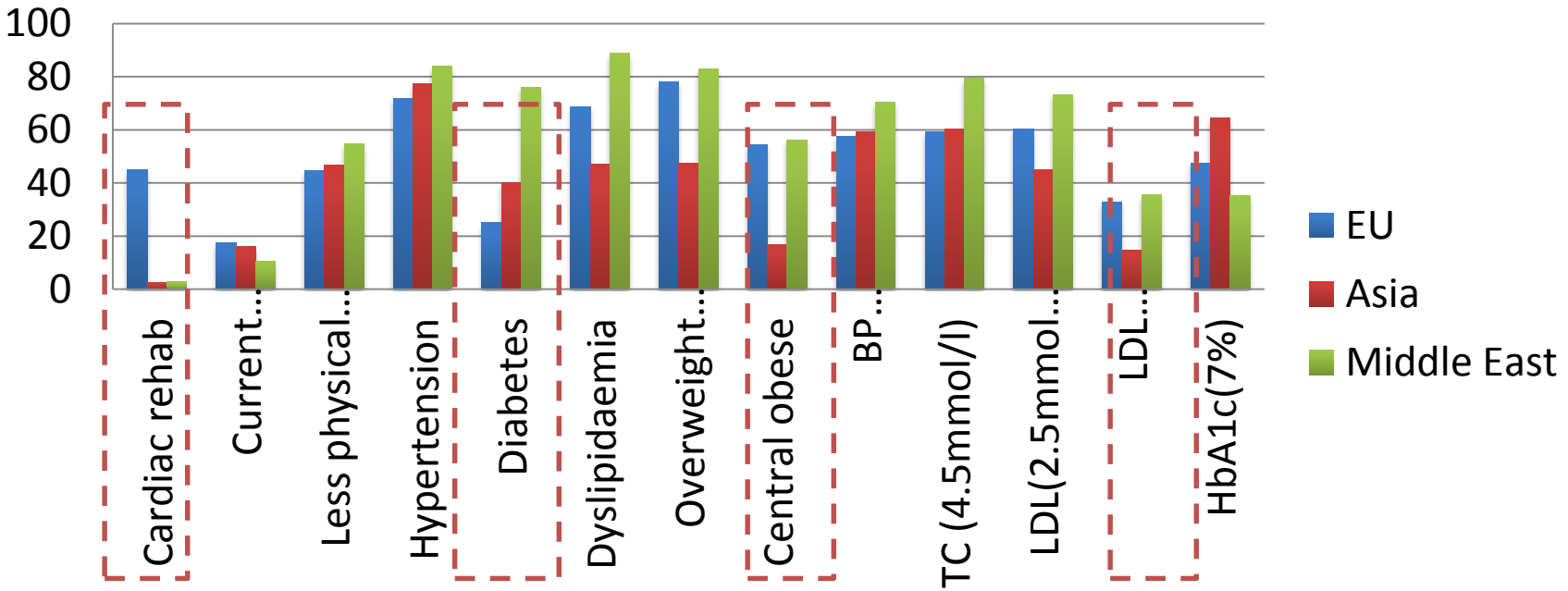
Risk factor control and target achievements by region



1. Cardiac rehab: Asia and the Middle East<2%
2. Diabetes: the Middle East>70%, Asia=40%
3. Central obese: the Middle East>50%
4. Targets: stricter LDL in all three regions<30%

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eck for updates

European Journal of Preventive Cardiology

Original scientific paper

Simplifying the audit of risk factor recording and control: A report from an international study in 11 countries

Min Zhao[1], Marie Therese Cooney[2], Kerstin Klipstein-Grobusch[1,3], Ilonca Vaartjes[1,4], Dirk De Bacquer[5], Johan De Sutter[6], Željko Reiner[7], Eva Prescott[8], Pompilio Faggiano[9], Diego Vanuzzo[10], Hussam AlFaleh[11], Ian BA Menown[12], Dan Gaita[13], Nana Pogosova[14], Wayne H-H Sheu[15], Dong Zhao[16], Huijuan Zuo[17], Diederick E Grobbee[1,4] and Ian M Graham[18]

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SURF
SUrvey of Risk Factors

for updates

European Journal of Preventive Cardiology

Original scientific paper

Quality assurance and the need to evaluate interventions and audit programme outcomes

Min Zhao[1], Ilonca Vaartjes[2,3], Kerstin Klipstein-Grobusch[1,4], Kornelia Kotseva[5,6], Catriona Jennings[5], Diederick E Grobbee[1,3] and Ian Graham[7]

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ORIGINAL RESEARCH ARTICLE

Sex differences in risk factor management of coronary heart disease across three regions

Min Zhao,[1] Ilonca Vaartjes,[2,3] Ian Graham,[4] Diederick Grobbee,[1,3] Wilko Spiering,[5] Kerstin Klipstein-Grobusch,[1,6] Mark Woodward,[7,8] Sanne AE Peters[7]

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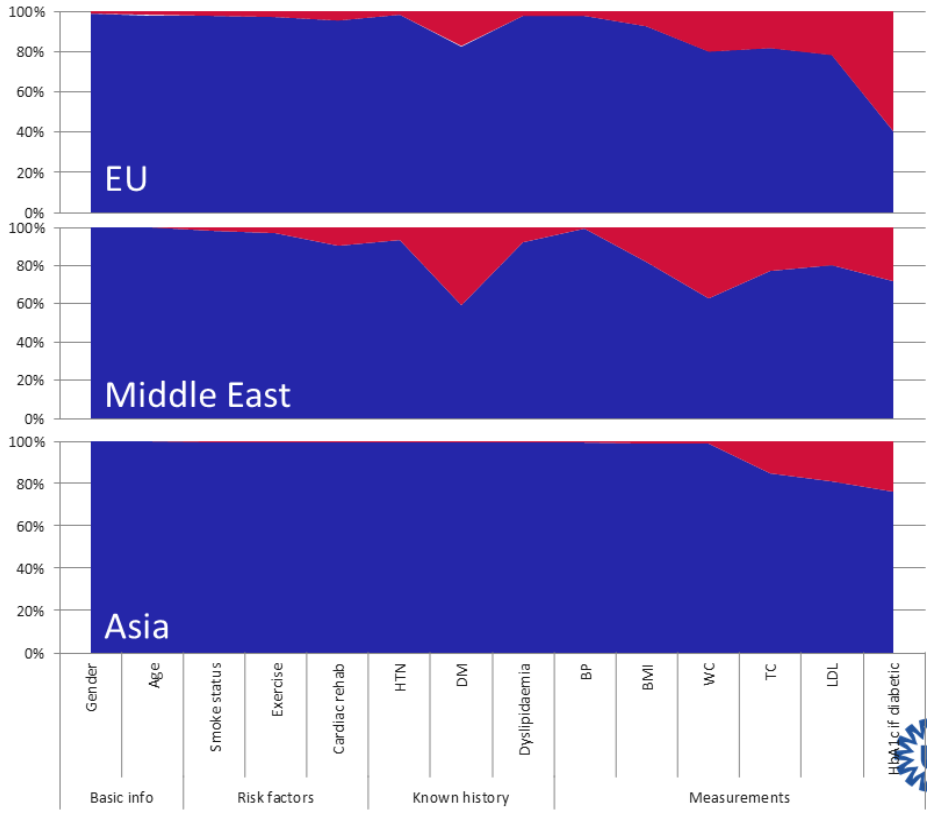
Missing data



SURF to date

- Pilot: n=1,000. Proved feasibility
- Phase 1: n=10,000, 79 centres, 11 countries
- Fewer smokers, more diabetes in Middle East
- Minimal access to cardiac rehabilitation in Asia and the Middle East
- High levels of inactivity
- Less overweight and abdominal obesity in Asia
- 30% at LDL target of 1.8mmol/l, 13% in Asia
- Statin and beta-blocker usage lower in Asia, calcium antagonists and nitrates higher

- **PHASE II NOW STARTING AND WE INVITE MUCH WIDER PARTICIPATION**

SURF PHASE II

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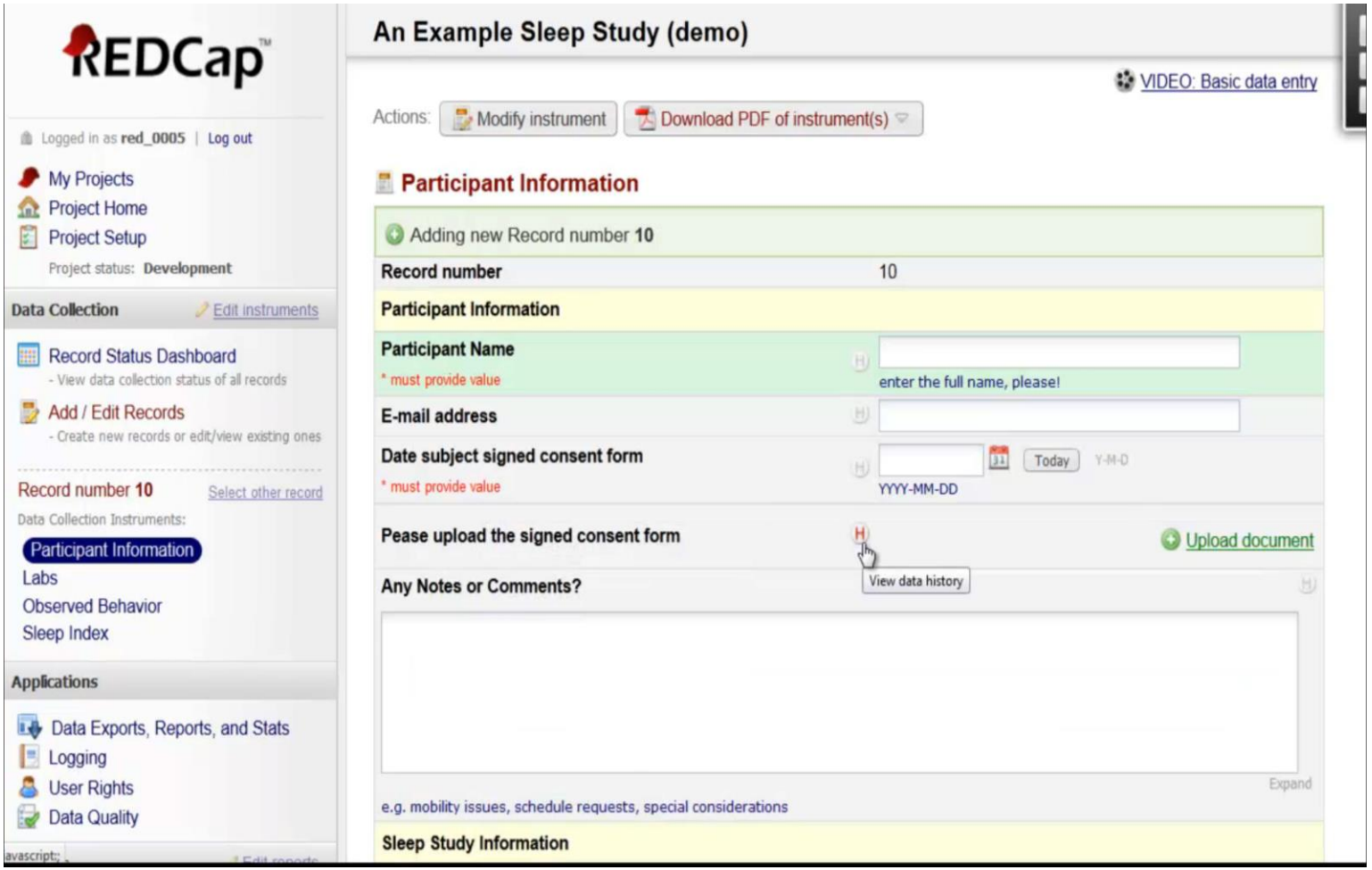
SURF Phase II

- Phase I mostly by personal contact
- Phase II now formalized under the ESC Global Affairs Committee (Diederick Grobbee)
- National CVD Prevention Co-ordinators (NCPCs) invited to lead nationally
- But existing National Co-ordinators asked to continue!
- Aim for many more centres (up to 300) internationally to increase representativeness.
- 57 NCS, 51 NCPCs, 47 ANCS
- Extending to nearly all geographic regions
- Patients per centre (50-100++)
- Data collection electronic only (RedCap) on PC, MAC, Tablet or Smartphone

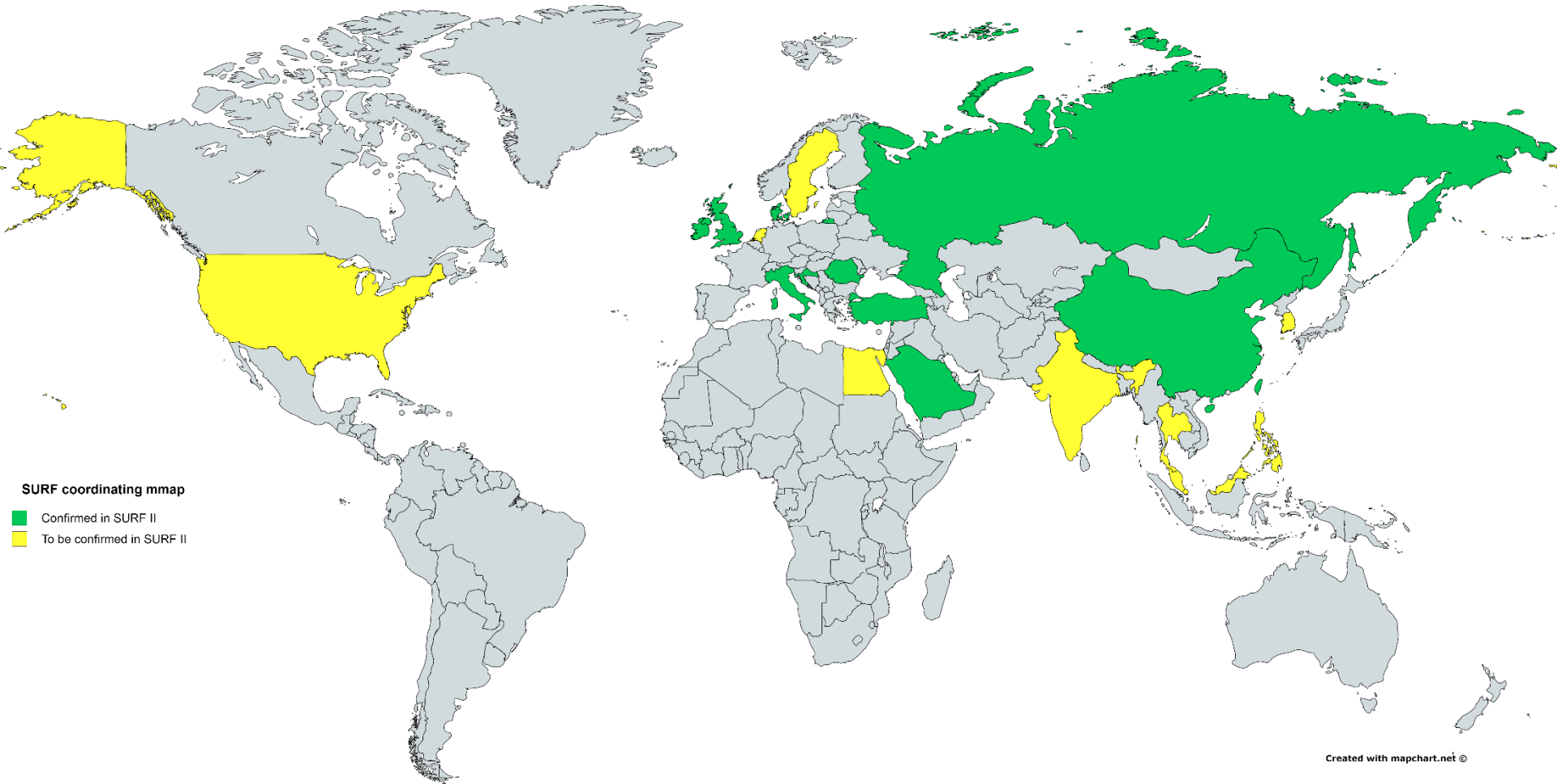


- A few extra items
- Using multiple networks (e.g. ESC network) to invite cardiologists/centres to participate

SURF Phase II 15 November 2019

- 44 centres
- 24 countries
- 4 Regions – Europe, Asia, Middle East, S. America
- n=884

2018 Status participating countries SURF II
Growing rapidly
Wider international participation sought!



SURF study team

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Prof. Diederick Grobbee	Julius Centre, UMC
Dr. Marie-Therese Cooney	University College Dublin
Dr. Kerstin Klipstein-Grobusch	Julius Centre, UMC
Dr. Ilonca Vaartjes	Julius Centre, UMC
Min Zhao	Julius Centre, UMC

Original SURF collaborators

Dirk De Bacquer (Belgium), Johan De Sutter (Belgium), Željko Reiner (Croatia), Eva Prescott (Denmark), Pompilio Faggiano (Italy), Diego Vanuzzo (Italy), Hussam AlFaleh (KSA), Ian Menown (N.Ireland), Dan Gaita (Romania), Dan Gaita (Romania), Dan Gaita (Romania), Wayne H-H Sheu (Taiwan), Dong Zhao (China), Huijuan Zuo (China)

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Why participate in SURF?

- You become part of an **international collaboration**
- National coordinators join the steering committee and are authors on **international publications**
- We return centre and country results with appropriate pooled (local and international) data to facilitate and encourage **local, first author publications**
- Audit is increasingly required for **training** and **accreditation** purposes – if we don't do it, it will be done to us.
- Quick, easy and very cost-effective.

- **PHASE II HAS NOW STARTED AND WE INVITE MUCH WIDER PARTICIPATION**

The SURF family is growing

- **SURF CHD and overall harmonization of protocols-** Utrecht and Dublin
- **SURF RA-** Oslo, Anne-Grete Semb
- **SURF Stroke-** Pilot Dublin, Phase I likely Australia and UK
- **SURF COPD-** pilot Dublin

Participate?

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Thank you
and
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