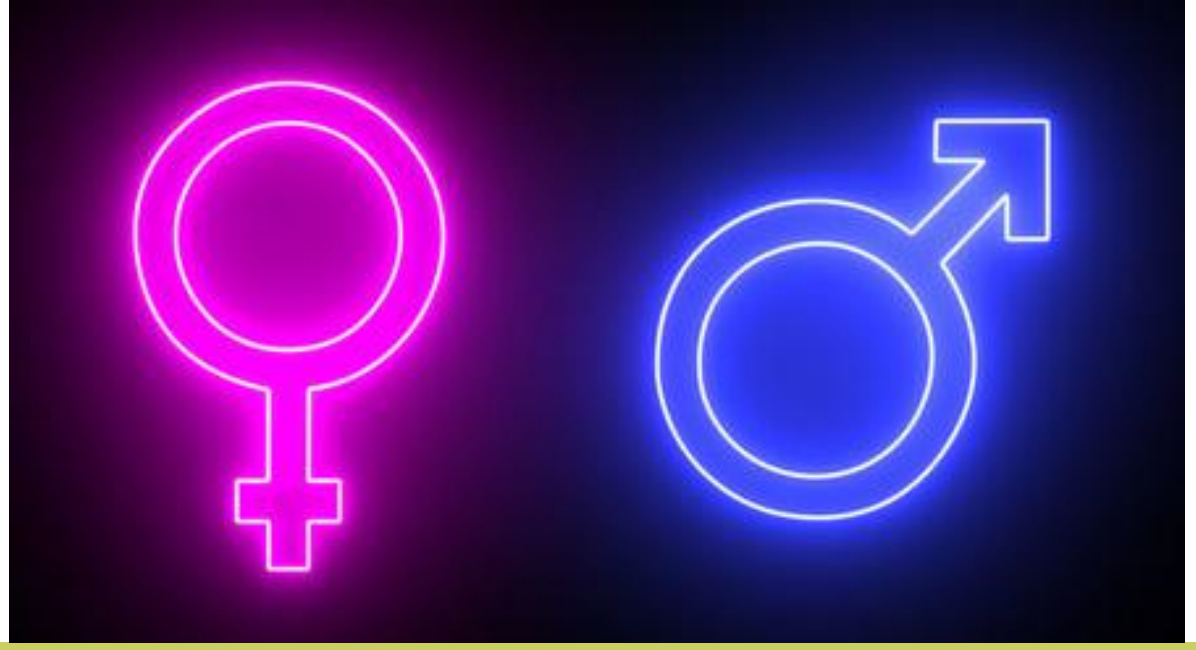

GENDERSENSITIEVE GEZONDHEIDSZORG : WETENSCHAP, WAARHEID … OF WEERAL WOKE?

Dr. Berlinde von Kemp

15/05/2025

Cardio-Oncologie

Universitair Ziekenhuis Brussel

Centrum voor Hart- en Vaatziekten

MÉDECINE SORBONNE UNIVERSITÉ

VUB


WELL
BEHAVED
WOMEN
SELDOM
MAKE
HISTORY.
LAUREL THATCHER ULRICH

WOMEN SELDOM MAKE HISTORY.

LAUREL THATCHER ULRICH


WELL
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MAKE
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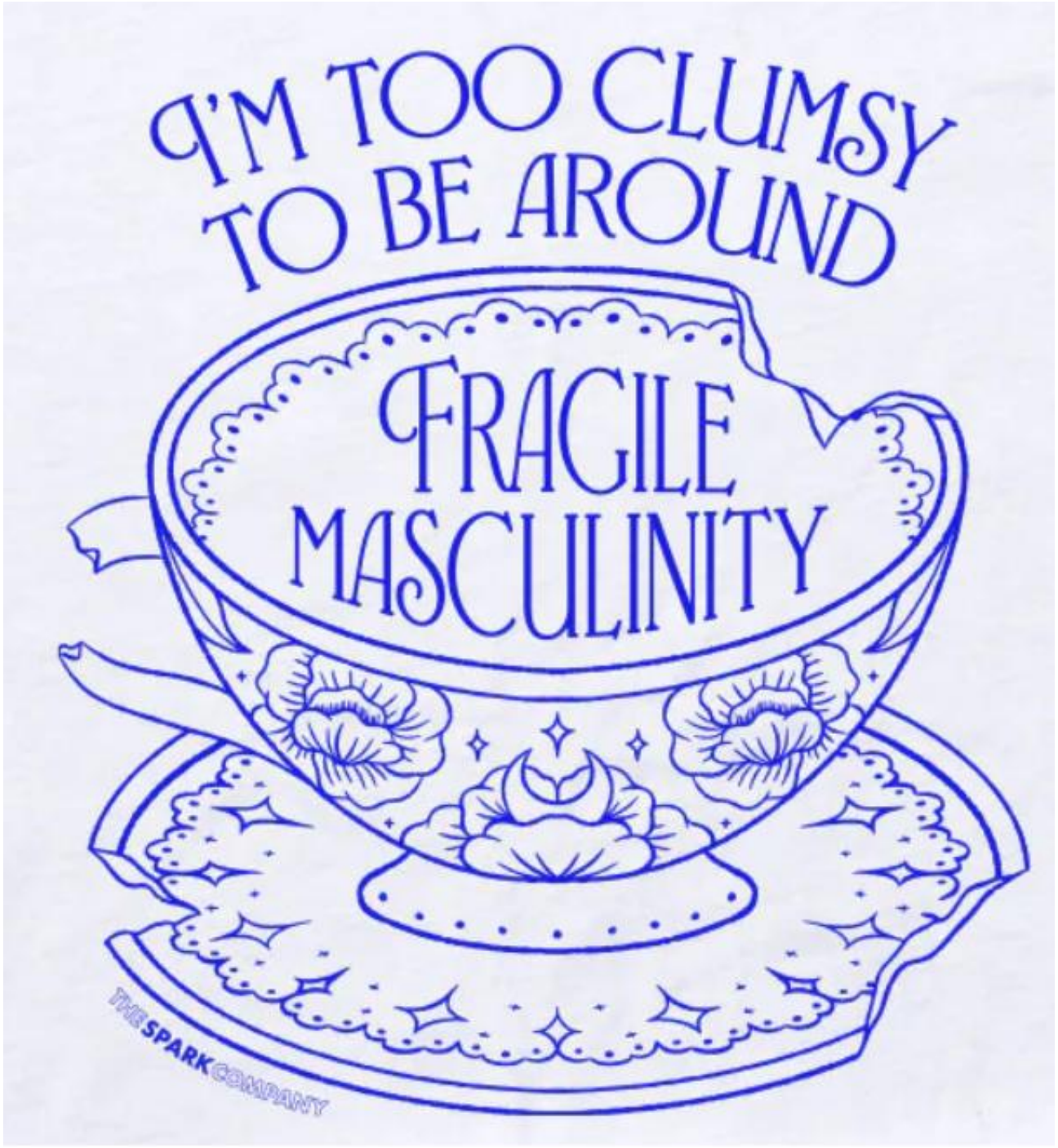
LAUREL THATCHER ULRICH


I'M TOO CLUMSY
TO BE AROUND
FRAGILE
MASCULINITY
THE SPARK COMPANY

Circulation: Cardiovascular Interventions

EDITORIAL

Understudied, Under-Recognized, Underdiagnosed, and Undertreated: Sex-Based Disparities in Cardiovascular Medicine

Sonya N. Burgess, PhD, MBChB

GESLACHT EN GENDER IN GENEESKUNDE – BACK TO THE FUTURE?

1. ‘Understudied’ – de thalidomide-tragedie
2. ‘Underdiagnosed & undertreated’ – ook vandaag nog : hoezo?
3. ‘Underrecognized’ – maar niet voor lang meer
4. Is dit woke? Of is de context ziek ?
5. Take home messages

Ik ben cardioloog

DISCLAIMER

Ik ben cis-vrouw (AFAB), zij/haar

GEEN GENDERSENSITIEVE ZORG

ZONDER GENDER-EGALE ZORG


sciensano
WOMEN'S HEALTH REPORT
BELGIUM, 2024
HEALTH INFORMATION

UNDERSTUDIED?

National Library of Medicine
National Center for Biotechnology Information

PubMed®

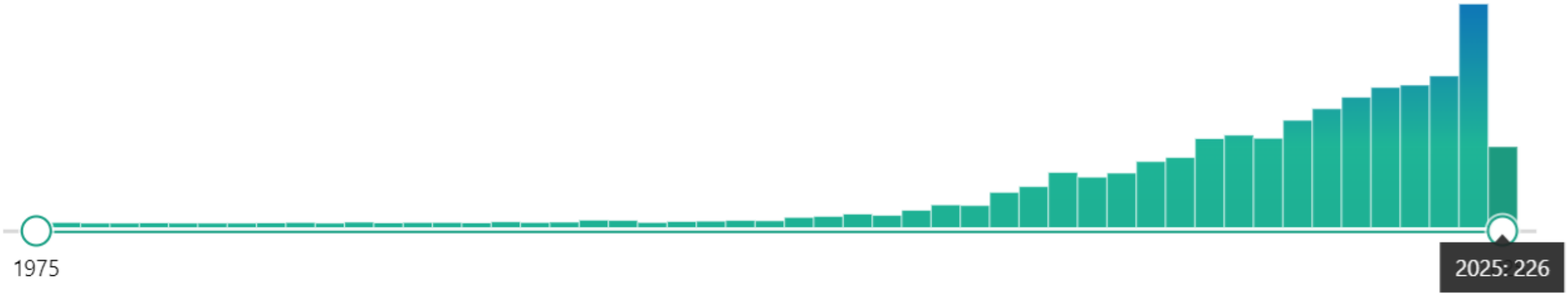
sex disparities cardiovascular disease

Search

RESULTS BY YEAR

4,516 results

Page 1 of 452



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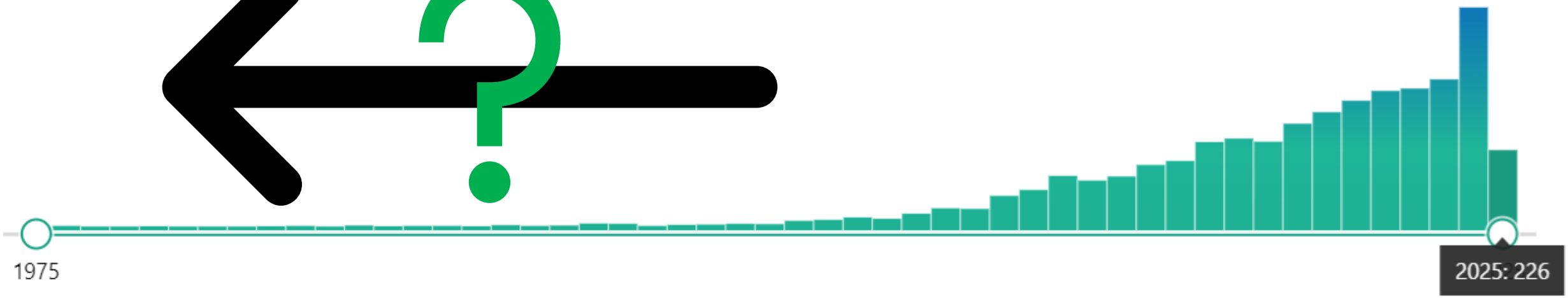
Page 1 of 452



DE THALIDOMIDE TRAGEDIE

DE THALIDOMIDE TRAGEDIE

DE THALIDOMIDE TRAGEDIE

1962

dr. Frances

Oldham - Kelsey

DE THALIDOMIDE TRAGEDIE

1977

DE THALIDOMIDE TRAGEDIE

1977

DE THALIDOMIDE TRAGEDIE

1986

1986

NIH enacts the Inclusion of Women and Minorities in Clinical Research policy

DE THALIDOMIDE TRAGEDIE

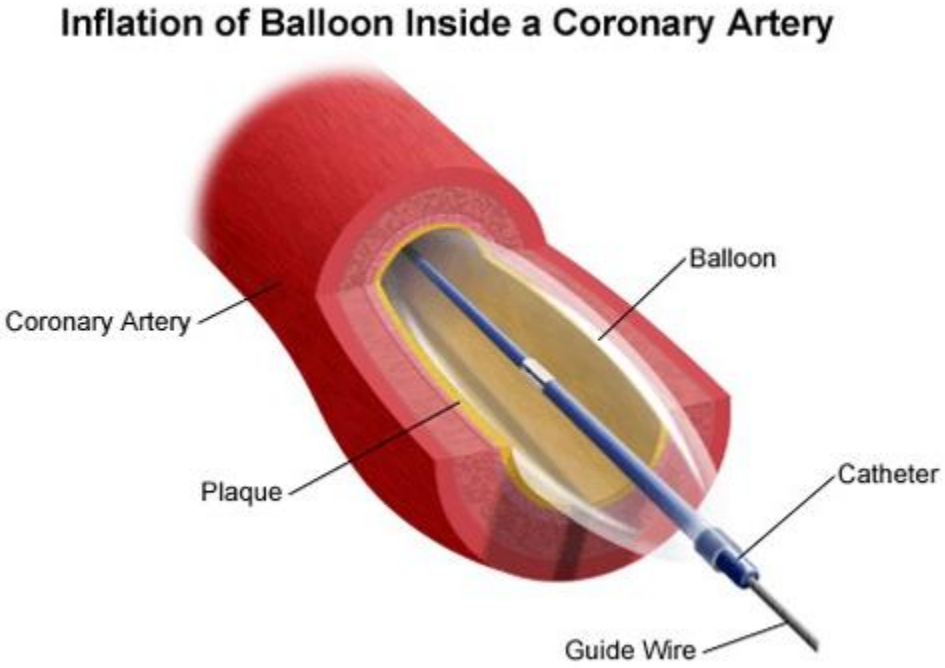
1993

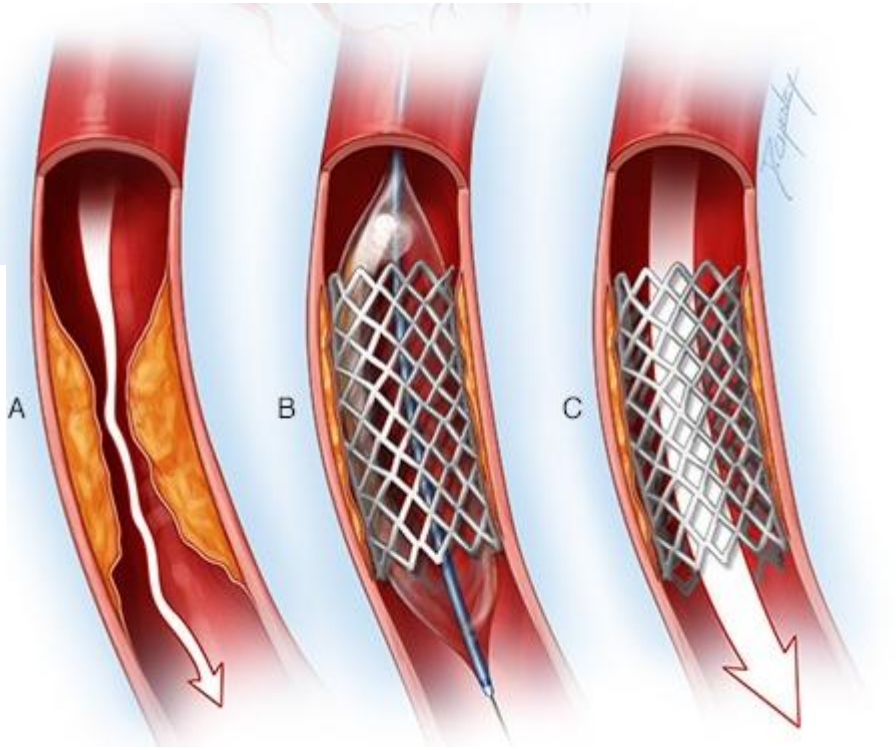
WHAT HAPPENED IN 1993?

On June 10, 1993, Congress passed the NIH Revitalization Act, requiring the inclusion of women in clinical research for the *first* time.

2023 marks 30 years since the passing of this law — but we're still decades behind.

ANDROCENTRISME?





1977-1993

WAT DOODT WIE?

BELGIË : 2022 = 116 380 overlijdens

CA + CVD : +/- 50%

‘mannen sterven aan hart- en vaatziekten, vrouwen aan borstkanker’

	Hart- en vaatziekten		Tumoren	
	Aantal	%	Aantal	%
België	27.466	23,6%	27.422	23,6%

https://statbel.fgov.be/nl/themas/bevolking/sterfte-en-levensverwachting/doodsoorzaken#figures

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ECHT?

https://statbel.fgov.be/nl/themas/bevolking/sterfte-en-levensverwachting/doodsoorzaken#figures

NIET DUS.

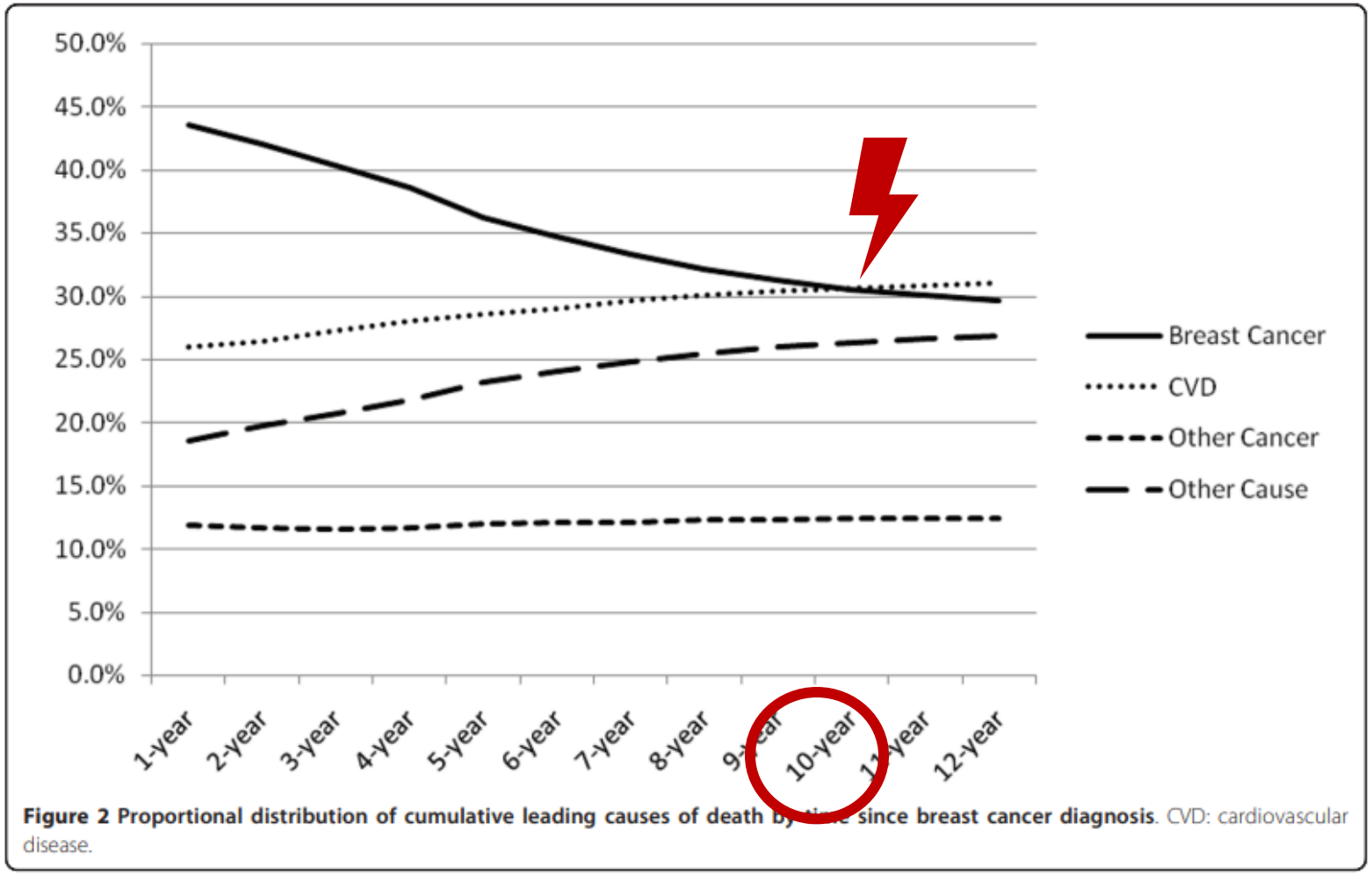


Figure 2 Proportional distribution of cumulative leading causes of death by time since breast cancer diagnosis. CVD: cardiovascular disease.

Patnaik et al. Breast Cancer Res 2011

WAT DOODT WIE?

BELGIË : 2022 = 116 380 overlijdens

Hart & vaatziekten : 27 466 (23,6%)

♀	♂
14 812	12 654
53,9%	46,1%

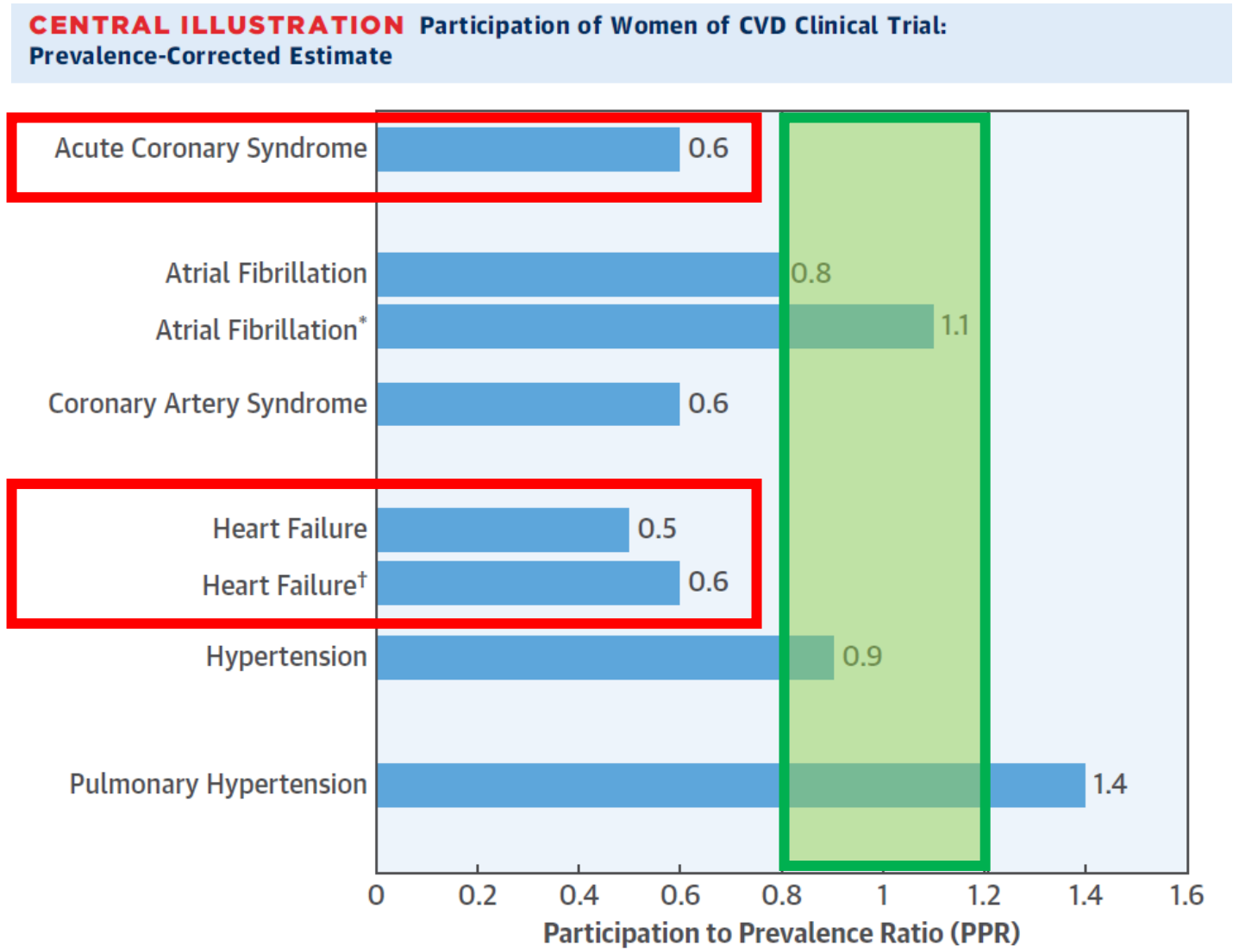
https://statbel.fgov.be/nl/themas/bevolking/sterfte-en-levensverwachting/doodsoorzaken#figures

UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

PPR :
Participation to prevalence ratio

<u>% vrouwelijke patiënten in studie</u>
% vrouwelijke patiënten in ‘real world’

… voor ziektebeeld X



Scott, P.E. et al. J Am Coll Cardiol. 2018;71(18):1960-9.

Universitair Ziekenhuis Brussel

VUB

UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

Gender Disparities in the Diagnosis and Treatment of Non–ST-Segment Elevation Acute Coronary Syndromes

OBJECTIVES We hypothesized that significant disparities in gender exist in the management of patients with non–ST-segment elevation (NSTE) acute coronary syndromes (ACS).

BACKGROUND Gender-related differences in the diagnosis and treatment of ACS have important healthcare implications. No large-scale examination of these disparities has been completed since the publication of the revised American College of Cardiology/American Heart Association guidelines for management of patients with NSTE ACS.

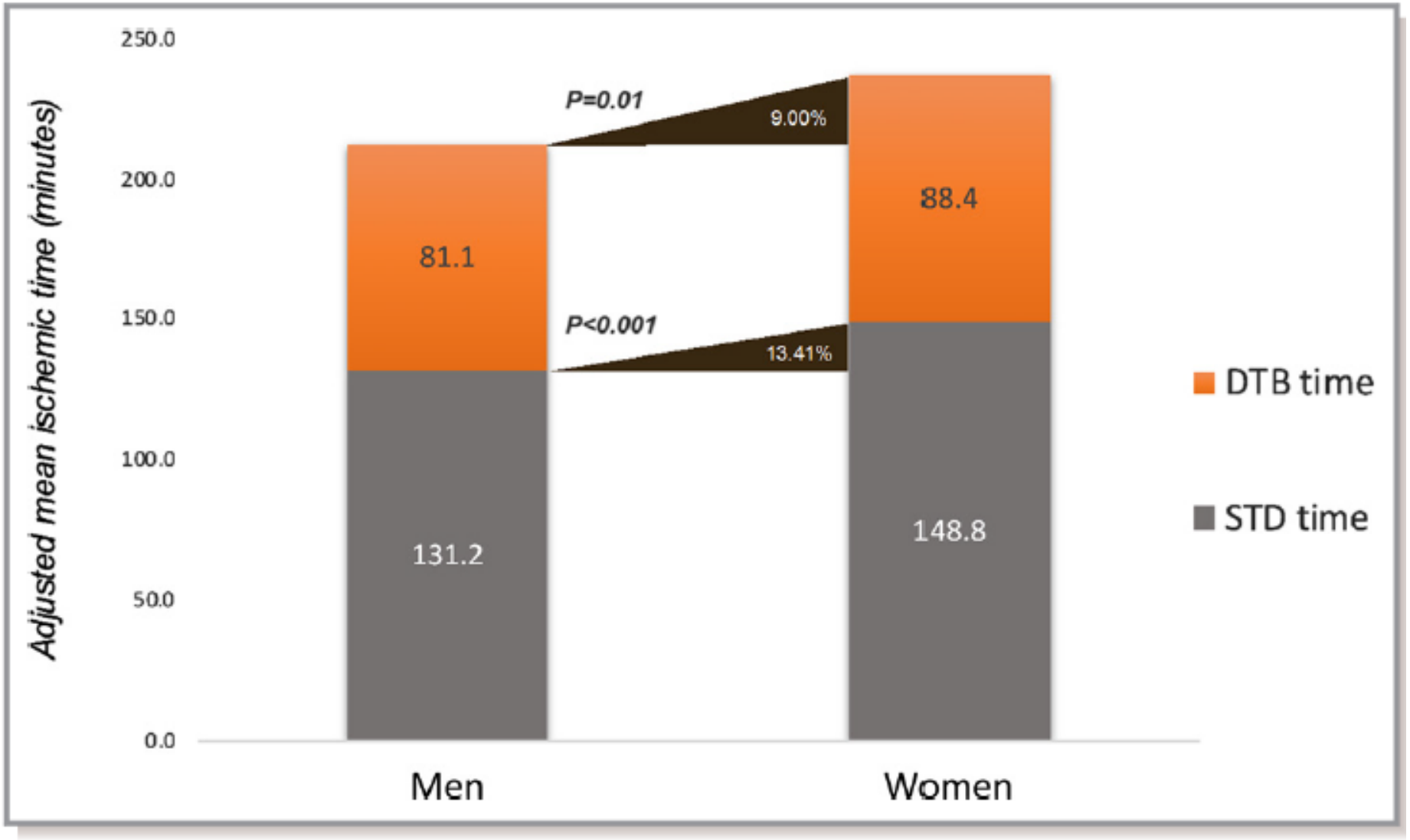
METHODS Using data from the CRUSADE (Can Rapid Risk Stratification of Unstable Angina Patients Suppress Adverse Outcomes with Early Implementation of the American College of Cardiology/American Heart Association Guidelines) National Quality Improvement Initiative, we examined differences of gender in treatment and outcomes among patients with NSTE ACS.

RESULTS Women (41% of 35,875 patients) were older (median age 73 vs. 65 years) and more often had diabetes and hypertension. Women were less likely to receive acute heparin, angiotensin-converting enzyme inhibitors, and glycoprotein IIb/IIIa inhibitors and less commonly received aspirin, angiotensin-converting enzyme inhibitors, and statins at discharge. The use of cardiac catheterization and revascularization was higher in men, but among patients with significant coronary disease, percutaneous revascularization was performed in a similar proportion of women and men. Women were at higher risk for unadjusted in-hospital death (5.6% vs. 4.3%), reinfarction (4.8% vs. 3.5%), heart failure (12.4% vs. 8.8%), stroke (1.1% vs. 0.8%), and red blood cell transfusion (17.2% vs. 13.2%), but after adjustment, only transfusion was higher in women.

CONCLUSIONS Despite presenting with higher risk characteristics and having higher in-hospital risk, women with NSTE ACS are treated less aggressively than men. (J Am Coll Cardiol 2005;45: 832–7) © 2005 by the American College of Cardiology Foundation

Blomkalns et al. J Am Coll Cardiol 2005

UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG



Stehli et al. J Am Heart Assoc 2019

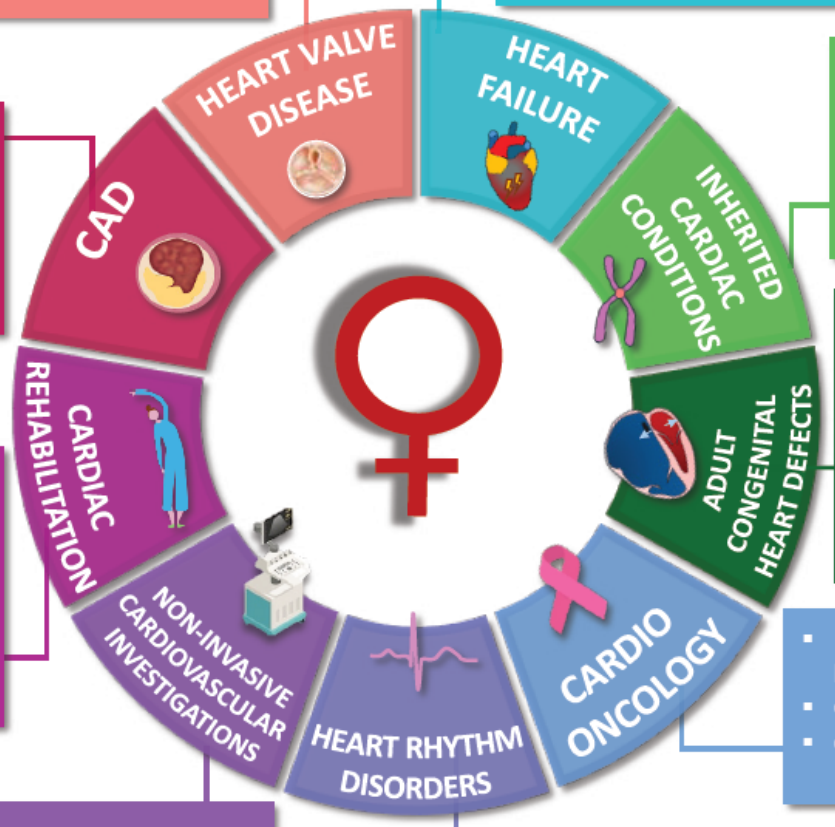
UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

Tayal et al. Heart 2024

- Sex-related differences in CV adaptation to and consequences of HVD with different remodelling of cardiac chambers
- Tricuspid regurgitation more common in women
- Smaller parameters of LV cavity

- Women present older, with ↓ ischaemic causes, ↑ comorbidities
- ↓ ICD/CRT implantation rate for primary prevention of SCD
- ↓ referral to advanced HF therapies (VAD and transplant)
- Late referral for transcatheter mitral repair
- Pregnancy complications associated with ↑ risk of DCM/HCM

- Less likely to be referred for diagnostic assessment
- Lower use of GDMT
- Worse clinical outcomes in ACS
- Non-obstructive CAD more frequent



- X-linked disorders associated with a milder phenotype in women leading to delayed/ missed diagnosis
- Mosaicism due to X chromosome inactivation causing different phenotypes
- Variations in post-translational protein function

- ↑ cumulative prevalence of ACHD in females compared to males
- ↑ milder ACHD subtypes in females
- Lack of sex-specific prevention/disease identification/prognosis definition/therapeutic strategies
- Inequalities in access to specialist Paediatric/ Transition/ACHD support/education/ care

- Lack of adequate support for women with SCAD
- Barriers to CPRPs (lack of time, work/family commitments)
- Reluctance to revisit the hospital setting after a cardiac event
- Lack of awareness on the impact of lifestyle changes upon CV risk

- Biological factors (pharmacokinetics, biochemical/hormonal differences)
- Clinical and socioeconomical factors (delayed diagnosis)
- Cardiotoxic profile of cancer therapies (anthracyclines, HER2 inhibitors, radiotherapy)

- Smaller chest cavities and breast tissue affecting diagnostic accuracy
- CAC conferring ↑ mortality risk in women than men
- High-risk plaques increasing MACE risk compared to men
- ↑ likely to receive a false negative diagnosis and unexplained chest pain due to MVA

- ↑ risk of acquired LQT / susceptibility to drug-induced TdP
- ↑ diagnostic delays, ↓ catheter ablation/device therapy
- ↓ rhythm control whilst ↑ risk of HF in a rate control strategy
- Multifactorial thrombotic risk involving hormonal, endocrine, lifestyle/social factors

UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

Hartinfarct bij vrouwen : lagere overlevingskans!	30-d sterfte +/- 50% hoger
> Symptomen worden vaker ‘gemist’	♀ > ♂ ‘niet uw hart’ : 53% vs. 37%
> Tijd tot diagnose (ECG op spoedgevallen)	♀ > ♂ +/- 30min langer
> Kans op interventionele behandeling (stent)	♀ < ♂ 58% minder (coro: 47%)
> Tijd tot stentplaatsing	♀ > ♂
> Kans op volledige revascularisatie	♀ < ♂
> Kans op volledig verdwijnen van de klachten	♀ < ♂
> Kans op optimale medische therapie na infarct	♀ < ♂ 15-25% minder (statine : 50%)
> Kans op participatie aan revalidatie na infarct	♀ < ♂ 25% minder
> Kans op optimale preventie	♀ < ♂ 170% meer complicaties @6m
> Kans op bereiken preventie-targets	♀ < ♂
Kans op reanimatie ?	

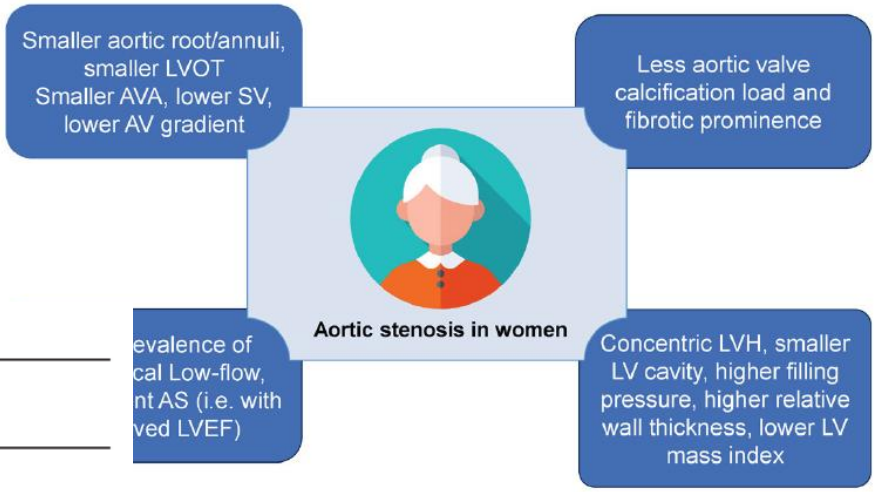
UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

Sex-related disparities in aortic stenosis from disease awareness to treatment: a state-of-the-art review

Clare Appleby[1], Sabine Bleiziffer[2], Peter Bramlage[3], Victoria Delgado[4], Helene Eltchaninoff[5], Catherine Gebhard[6], Christian Hengstenberg[7], Jana Kurucova[8], Philipp Marx[9], Tanja K. Rudolph[10] Wojtek Wojakowski[11]

Table 2 Summary of sex-related disparities in AS and treatment outcomes

Characteristics/ treatment outcomes	Women	Men
Outcomes of TAVR	• Lower in-hospital and 30-day mortality	• Increased in-hospital and 30-day mortality
	• Increased risk of vascular complications, bleeding, blood transfusion	• Decreased risk of vascular complications, bleeding, blood transfusion
	• Increased risk of stroke	• Decreased risk of stroke
	• Less paravalvular regurgitation	• High paravalvular regurgitation
	• Less chance of prosthesis under sizing	• Increased chance of prosthesis under sizing
	• Decreased 1- or 2-year mortality	• Increased 1- or 2-year mortality
	• Higher long-term survival benefit	• Less long-term survival benefit
Outcomes of SAVR	• Increased in-hospital and 30-day mortality	• Decreased in-hospital and 30-day mortality
	• Increased risk of vascular complications, bleeding, blood transfusion	• Increased risk of vascular complications, bleeding, blood transfusion
	• Increased risk of stroke	• Decreased risk of stroke
	• Increased risk of renal or HF	• Decreased risk of renal or HF
	• Increased prosthesis-patient mismatch	• Decreased prosthesis-patient mismatch



Appleby et al. J Thorac Dis2024

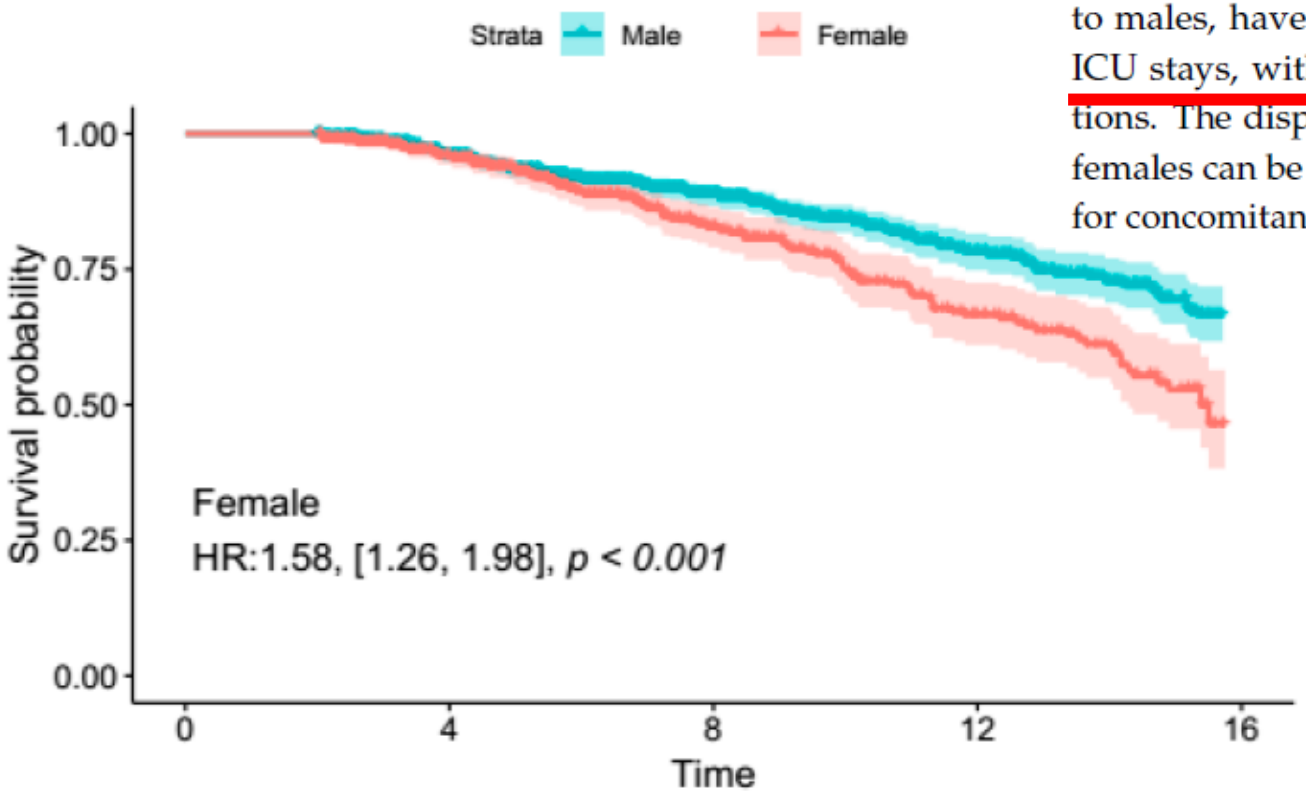
Appleby et al. J Thorac Dis2024

UNDERDIAGNOSED & UNDERTREATED… OOK VANDAAG NOG

Systematic Review

Real World Sex Differences in Patients Undergoing Ascending Aortic Aneurysm Surgery—A Systematic Review and Meta-Analysis of Reconstructed Time-to-Event Data

Mohammed Al-Tawil [1,*], Alexander Geragotellis [2], Ahmad Alroobi
Wafaa A. Sulaiman [3], Nour Ghaben [3], Heba T. Salim [3], Christine Friedr



6. Conclusions

Our data identifies that females undergoing ascending aortic surgery, as compared to males, have significantly greater 30-day mortality, longer hospital stays, and longer ICU stays, with non-significant differences noted in post-operative systemic complications. The disparities in preoperative age and the timing of surgery between males and females can be potentially explained by differences in comorbidity profiles and the need for concomitant surgery.

Sex Differences in Outcomes After Coronary Artery Bypass Grafting

Soham Gupta, BA[*], Briana Lui, BS[*], Xiaoyue Ma, MS[†], Maria Walline, MD[‡], Natalia S. Ivascu, MD[§], Robert S. White, MD, MS[§,1]

Risk-adjusted Outcomes by Sex for CABG Surgery Patients

Outcomes	aOR of Female *v* Male (95% CI)
In-hospital mortality	1.32 (1.25-1.40)
30-day readmission	1.24 (1.21-1.28)
90-day readmission	1.25 (1.22-1.28)

Gupta et al. J Cardiothor Vasc Anes 2020

WAAR LOOPT HET MIS?

WAAR LOOPT HET MIS?

WAAR LOOPT HET MIS?

A systematic review of disparities in the medical management of atherosclerotic cardiovascular disease in females ☆

ABSTRACT

Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of death in the United States and worldwide. Medical management of known modifiable risk factors, such as dyslipidemia, hypertension, and diabetes, is a key aspect to its treatment. Unfortunately, there are substantial sex-based differences in the treatment of ASCVD that result in poor medical management and worse clinical outcomes. The objective of this systematic review was to summarize known disparities in the medical management of ASCVD in females. We included prior studies with specific sex- and sex-based analyses regarding the medical treatment of the following three major disease entities within ASCVD: cerebrovascular disease, coronary artery disease, and peripheral artery disease. A total of 43 articles met inclusion criteria. In our analysis, we found that females were less likely to receive appropriate treatment of dyslipidemia or be prescribed antithrombotic medications. However, treatment differences for diabetes and hypertension by sex were not as clearly represented in the included studies. In addition to rectifying these disparities in the medical management of ASCVD, this systematic review highlights the need to address larger issues, such as underrepresentation of females in clinical trials, decreased access to care, and underdiagnosis of ASCVD to improve overall care for females.

Simioni et al. Semin Vasc Surgery 2023

Universitair Ziekenhuis Brussel

WAAR LOOPT HET MIS?

Ander klachtenpatroon : ‘atypisch’ – impliciete ‘bias’

Andere (bijkomende) CV risicofactoren

Systematische risico-onderschatting

Late verwijzing (‘zieker voor zelfde symptomen’)

Pathobiologische mechanismen?

Numerieke cut-offs voor interventies?

Vrouw als studie-subject & participant

… MAAR NU STAAN WE ER TENMINSTE AL BIJ STIL

Vrouw als studie-subject & participant

+

Vrouw als arts

Vrouw als wetenschapper

Vrouw als leidersfiguur

UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER

ESC European Society of Cardiology

European Heart Journal (2024) **45**, 1505–1511
https://doi.org/10.1093/eurheartj/ehae121

STATE OF THE ART REVIEW
Ischaemic heart disease

Patient–physician sex concordance and outcomes in cardiovascular disease: a systematic review

Lamia Harik [1], Ko Yamamoto[2], Takeshi Kimura [2], Lisa Q. Rong[3], Birgit Vogel [4], Roxana Mehran [4], C. Noel Bairey-Merz[5], and Mario Gaudino [1]*

UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER

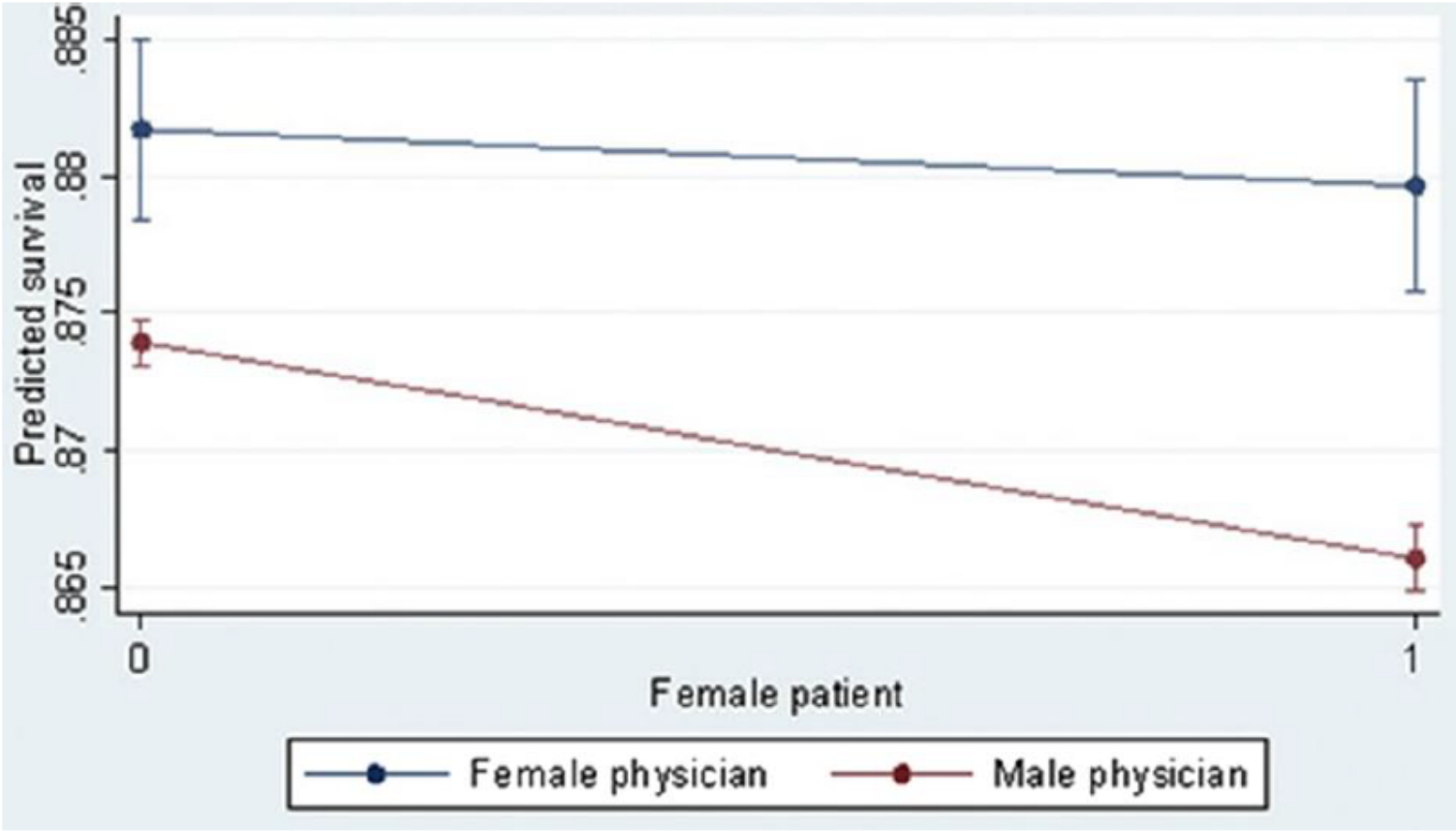


Figure 1 Sex concordance and predicted probability of patient survival with 90% confidence intervals. Estimates include controls and hospital quarter fixed effects. Covariates held at sample means. Reproduced with permission from Greenwood *et al.*[12]

Harik et al. Eur Heart J 2024

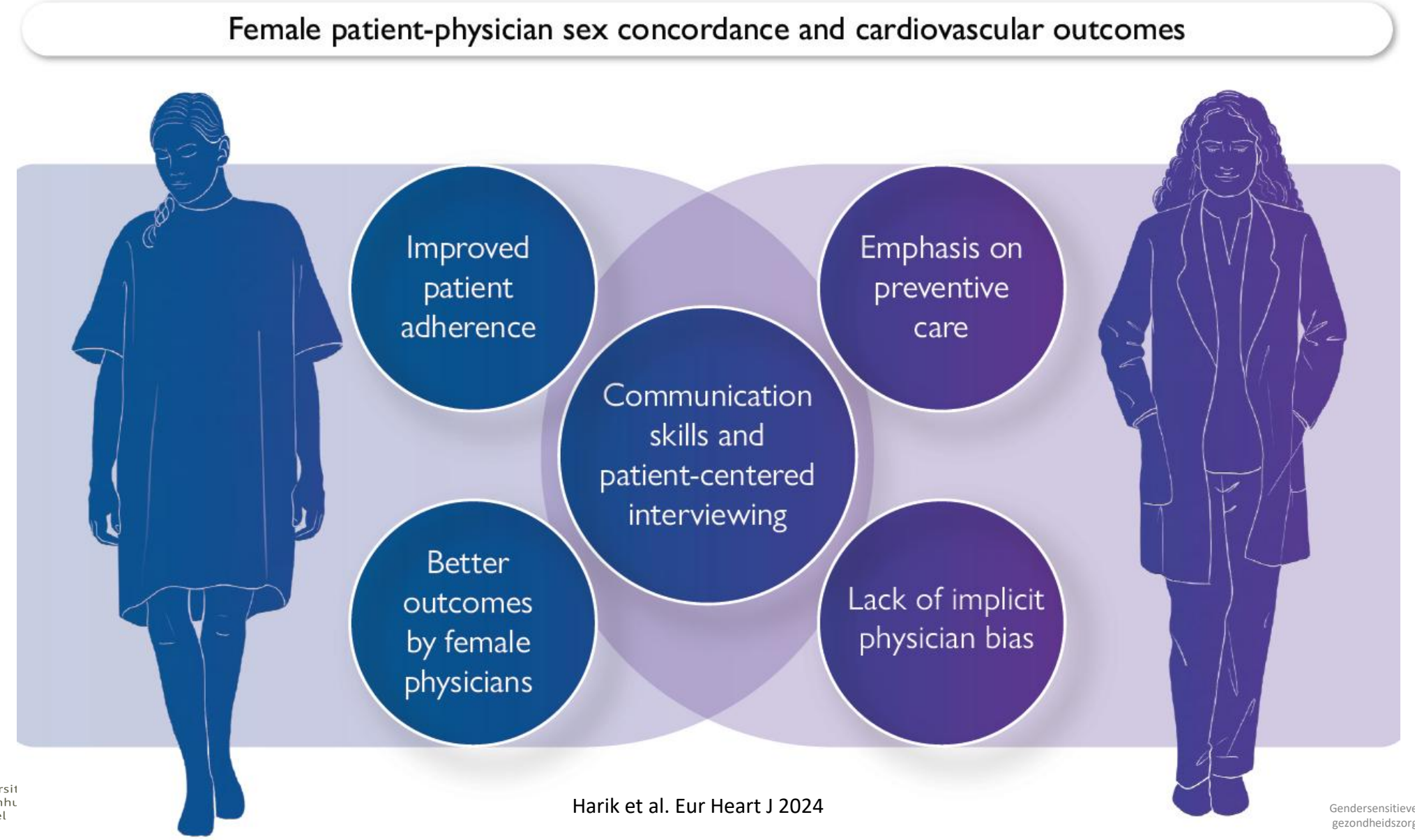
UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER

Table 1 **Stratified analysis according to patient sex to examine the association of patient and surgeon sex concordance on adverse post-operative outcomes, using multivariable generalized estimating equation regression models, with clustering based on procedure fee code**

	aOR (95% CI)[a]				
Surgeon–patient sex pair	**Composite endpoint**	**Death**	**Readmissions**	**Complications**	**Length of stay, aRR (95% CI)**
Among male patients					
Male physician (concordant)	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
Female physician (discordant)	0.99 (0.95–1.03)	0.87 (0.78–0.97)	0.94 (0.88–1.00)	1.02 (0.98–1.06)	1.02 (0.96–1.08)
Among female patients					
Female physician (concordant)	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
Male physicians (discordant)	1.15 (1.10–1.20)	1.32 (1.14–1.54)	1.11 (1.04–1.19)	1.16 (1.11–1.22)	1.20 (1.11–1.30)
P value for test for heterogeneity	.004	.003	.01	.02	.01

Harik et al. Eur Heart J 2024

UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER



Harik et al. Eur Heart J 2024

UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER

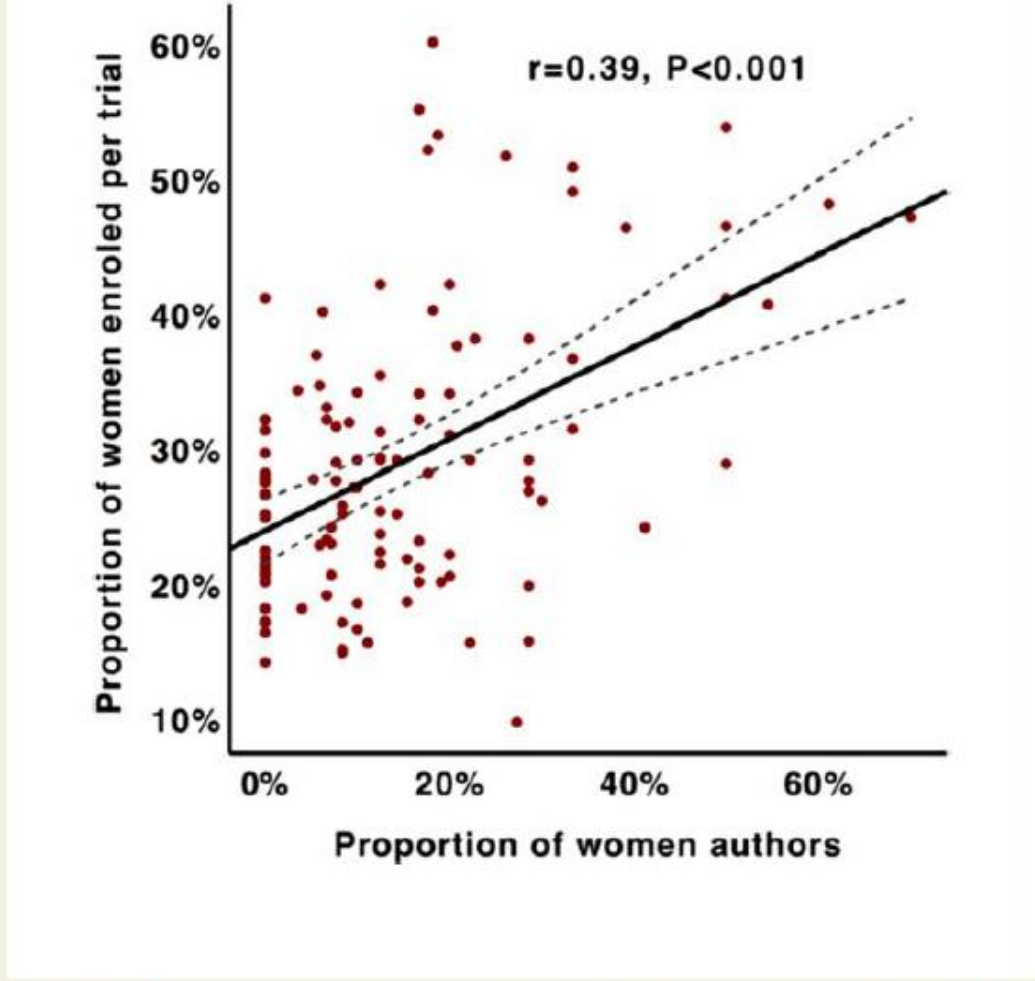
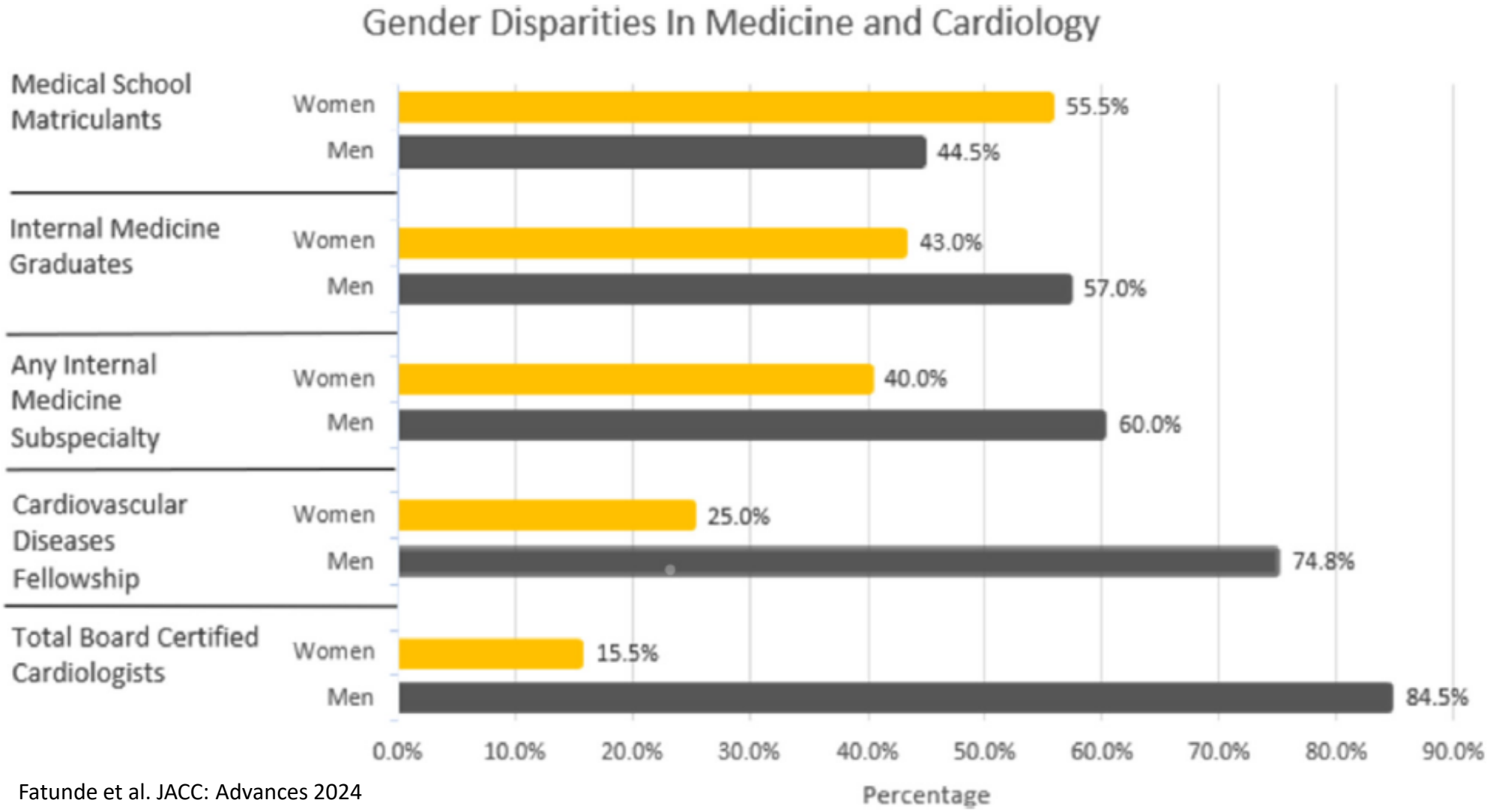


Figure 2 Association between female authors and enrolment of female participants per heart failure trial. Reproduced with permission from Reza *et al.*[43]

Harik et al. Eur Heart J 2024

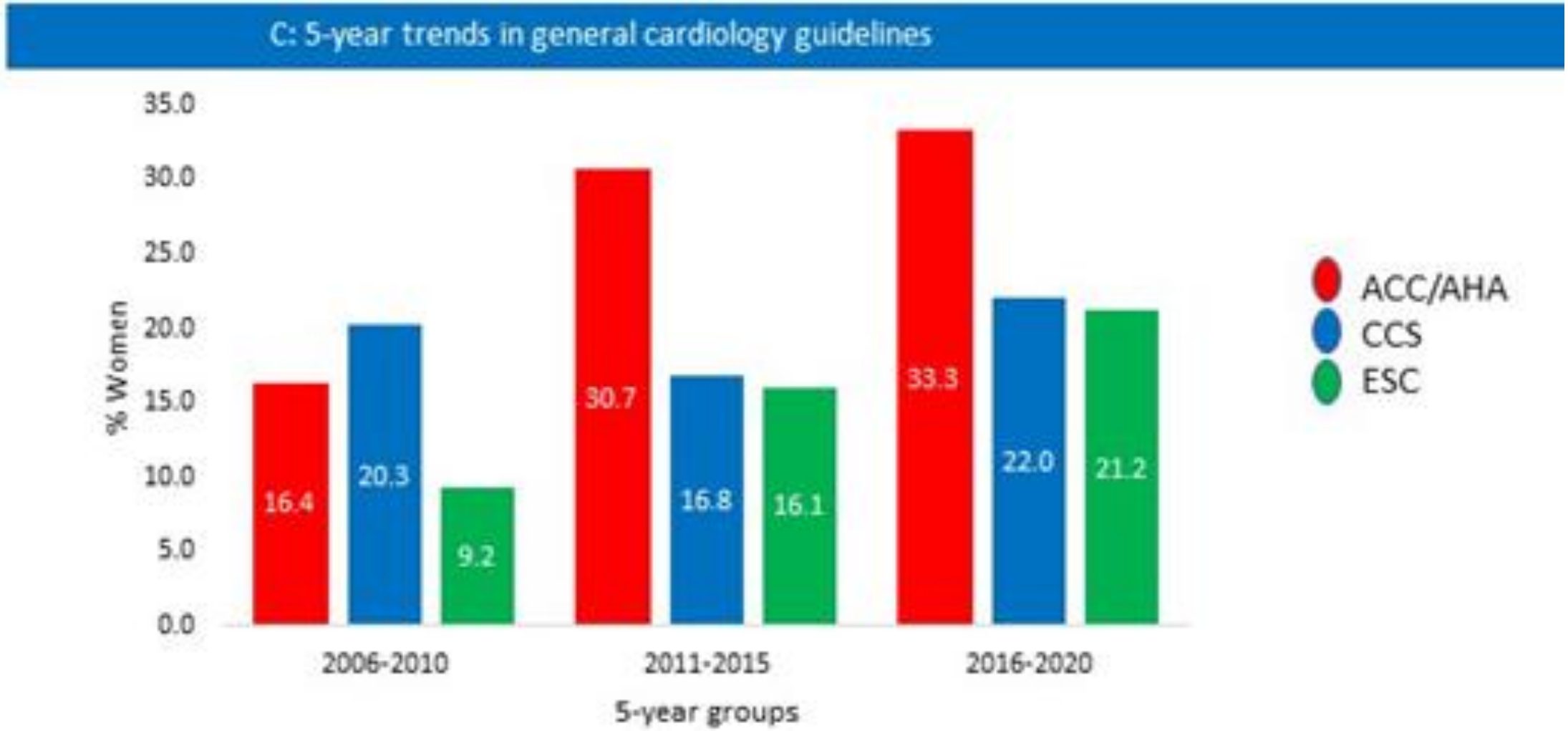
UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER

FIGURE 1 The Trends From Different Stages of Medical Education and Cardiology Practice Above



Fatunde et al. JACC: Advances 2024

UNDERRECOGNIZED – MAAR NIET VOOR LANG MEER



Rai et al. J Am Heart Assoc 2022

VROUWELIJK LEIDERSCHAP

GESLACHT & GENDER… WHAT'S IN A NAME?

GESLACHT : biologische kenmerken

= chromosomen, hormoon levels, aangeboren seksuele anatomie

= gewoonlijk BINAIR: M / V

('assigned male / female at birth') (AMAB/AFAB)

GENDER : sociale constructie

= gedragingen, expressies & identiteit

= NON-BINAIR

= NIET STATISCH

→ 'genderfluïditeit'

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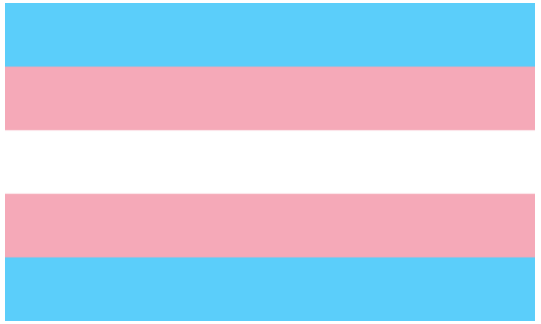

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ALLESBEHALVE VANZELFSPREKEND !

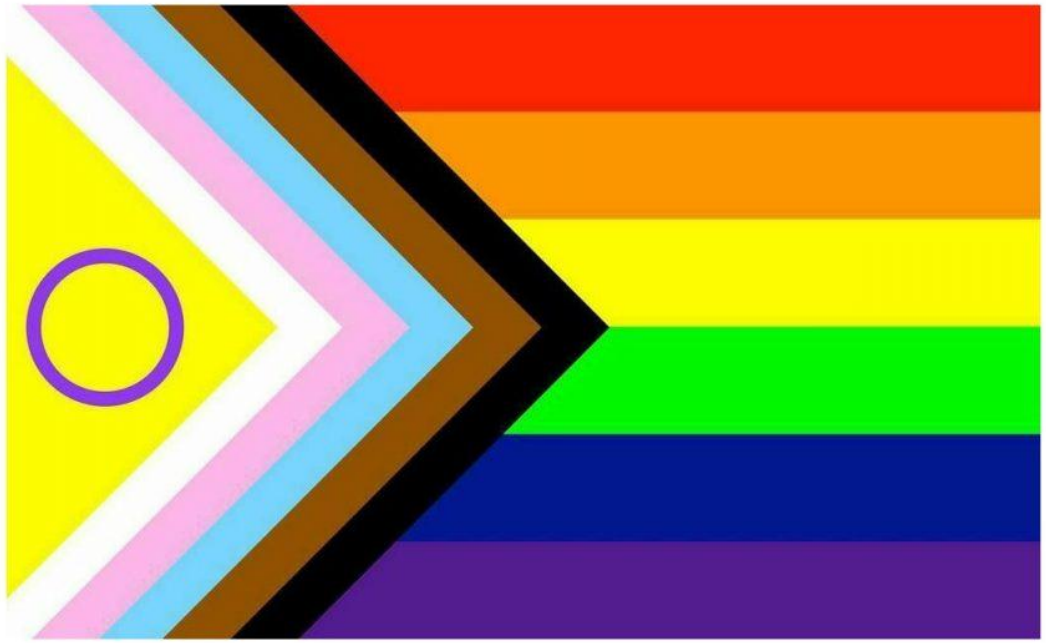
Afghanistan’s Taliban Ban Medical Training for Women

Closing One of the Last Loopholes for Female Education

UK Supreme Court rules legal definition of a woman is based on biological sex

16 April 2025

MAAR WEL EEN UITDAGING.

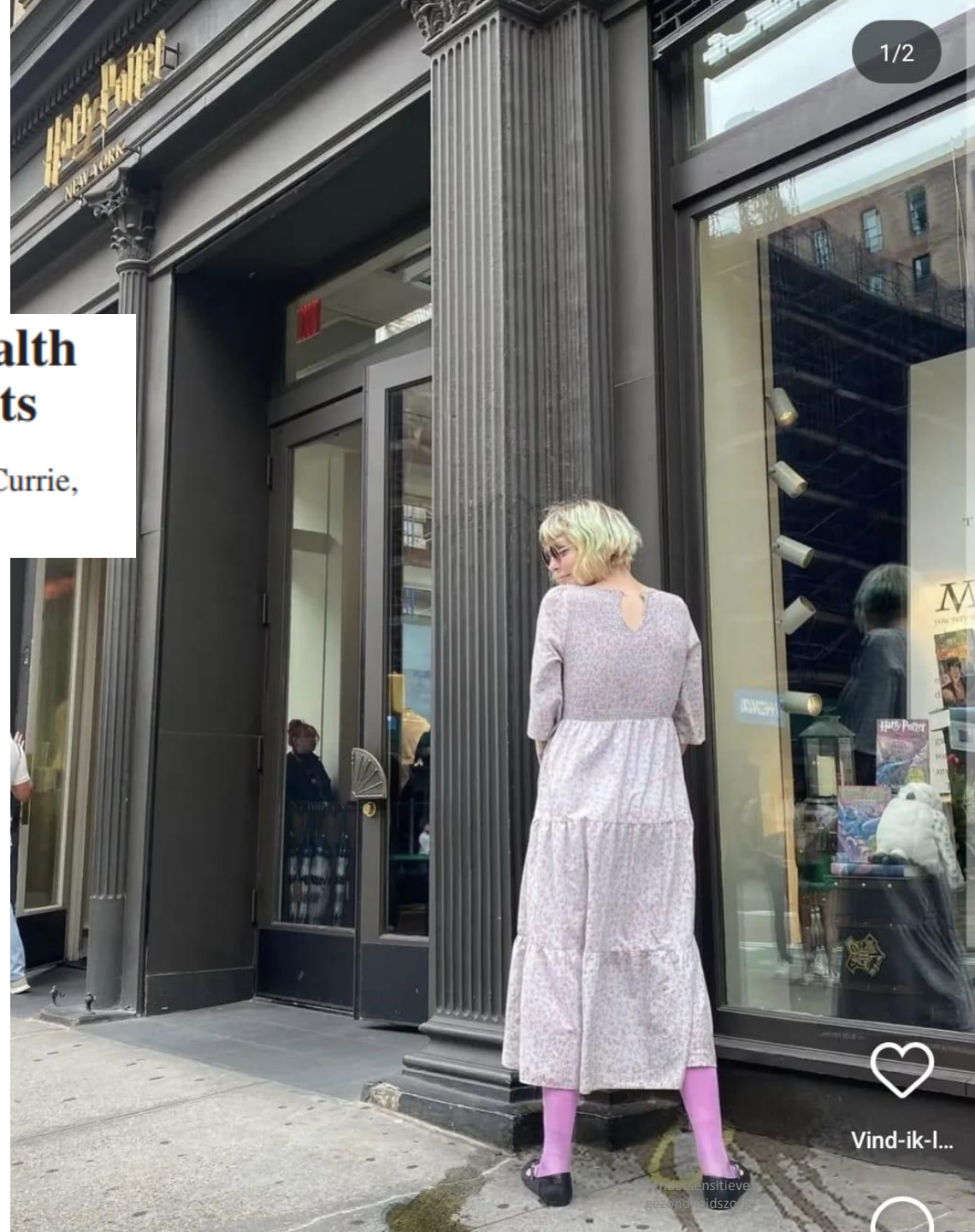


MAAR WEL EEN UITDAGING.

Gender-Affirming Hormone Therapy, Vascular Health and Cardiovascular Disease in Transgender Adults

Paul J. Connelly, E. Marie Freel, Colin Perry, John Ewan, Rhian M. Touyz, Gemma Currie, Christian Delles

Connelly et al. Hypertension 2019



Universitair Ziekenhuis Brussel

MAAR WEL EEN UITDAGING.

Gender-Affirming Hormone Therapy, Vascular Health and Cardiovascular Disease in Transgender Adults

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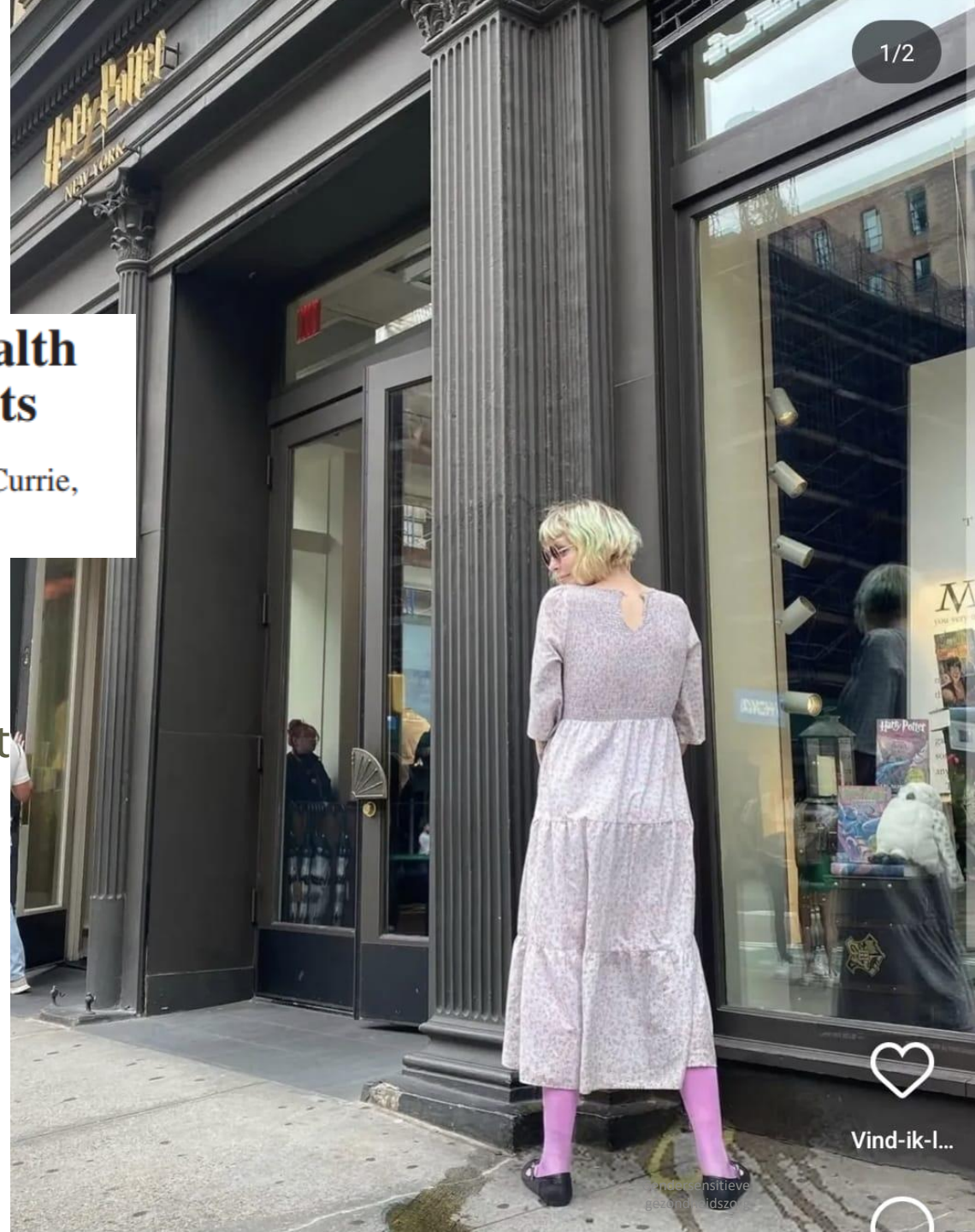
Cis-gender : genderidentiteit = geboortegeslacht

Trans-gender : genderidentiteit ≠ geboortegeslacht

Trans-man : gender M (hij/zijn), AFAB

Trans-vrouw : gender V (zij/haar), AMAB

+ impact genderdysforie



Connelly et al. Hypertension 2019

MAAR WEL EEN UITDAGING.

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Universitair Ziekenhuis Brussel

MAAR WEL EEN UITDAGING.

Cardiovascular disease in transgender people: a systematic review and meta-analysis

Abstract

Objective: Hormone therapy in transgender people might be associated with an increased risk of cardiovascular disease (CVD). We aimed to investigate whether the risk of CVD is increased in transgender people compared with people of the same birth sex.

Design and methods: PubMed, Cochrane, Embase, and Google Scholar were searched until July 2022. Studies evaluating cardiovascular events in transgender women or men were included. Primary outcomes were stroke, myocardial infarction (MI), and venous thromboembolism (VTE). The risk for transgender women versus cisgender men and for transgender men versus cisgender women was analysed through random-effects meta-analysis.

Results: Twenty-two studies involving 19 893 transgender women, 14 840 transgender men, 371 547 cisgender men, and 434 700 cisgender women were included. The meta-analysis included 10 studies (79% of transgender women and 76% of transgender men). In transgender women, incidence of stroke was 1.8%, which is 1.3 (95% confidence interval [CI], 1.0-1.8) times higher than in cisgender men. Incidence of MI was 1.2%, with a pooled relative risk of 1.0 (95% CI, 0.8-1.2). Venous thromboembolism incidence was 1.6%, which is 2.2 (95% CI, 1.1-4.5) times higher. Stroke occurred in 0.8% of transgender men, which is 1.3 (95% CI, 1.0-1.6) times higher compared with cisgender women. Incidence of MI was 0.6%, with a pooled relative risk of 1.7 (95% CI, 0.8-3.6). For VTE, this was 0.7%, being 1.4 (95% CI, 1.0-2.0) times higher.

Conclusions: Transgender people have a 40% higher risk of CVD compared with cisgender people of the same birth sex. This emphasizes the importance of cardiovascular risk management. Future studies should assess the potential influence of socio-economic and lifestyle factors.

Van Zijverden et al. Eur J Endocrinol 2024

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Trans women

Disease type and Study	Trans women Total	Trans women Events	Cis men Total	Cis men Events	Relative risk (95% CI)	% Weight
Stroke						
Caceres et al. 2020	1373	n/a	291911	n/a	1.6 (1.0, 2.6)	6.97
Getahun et al. 2018	2842	54	27906	n/a	1.2 (0.9, 1.6)	7.74
Karalexi et al. 2022	847	3	7890	31	1.1 (0.2, 5.7)	2.50
Nota et al. 2019	2517	29	2517*	16.08*	1.8 (1.2, 2.6)	7.53
Quinn et al. 2017	4375	88	34380	943	0.9 (0.7, 1.1)	8.08
Wierckx et al. 2013	214	4	640	6	2.0 (0.6, 6.7)	3.71
Subgroup, DL (I^2 = 59.6%, p = 0.030)					1.3 (1.0, 1.8)	36.52
Myocardial infarction						
Caceres et al. 2020	1373	n/a	291911	n/a	1.3 (0.9, 1.8)	7.67
Getahun et al. 2018	2842	33	27906	n/a	0.9 (0.6, 1.4)	7.12
Nota et al. 2019	2517	30	2517*	38.03*	0.8 (0.6, 1.1)	7.56
Quinn et al. 2017	4375	61	34380	664	0.9 (0.7, 1.2)	7.95
Wierckx et al. 2013	214	3	640	8	1.1 (0.3, 3.9)	3.55
Subgroup, DL (I^2 = 18.6%, p = 0.296)					1.0 (0.8, 1.2)	33.84
Thrombosis						
Getahun et al. 2018	2842	61	27906	n/a	1.9 (1.4, 2.6)	7.69
Karalexi et al. 2022	847	3	7890	12	2.8 (0.5, 15.8)	2.36
Nota et al. 2019	2517	73	2517*	16.04*	4.6 (3.6, 5.7)	8.05
Poteat et al. 2021	70	5	447	20	1.9 (0.5, 6.8)	3.48
Quinn et al. 2017	4375	86	34380	670	1.3 (1.0, 1.6)	8.06
Subgroup, DL (I^2 = 93.5%, p < 0.000)					2.2 (1.1, 4.5)	29.64
Overall, DL (I^2 = 89.8%, p < 0.000)					1.4 (1.0, 1.9)	100.00

NOTE: Weights are from random-effects model

Figure 2. Forest plot of stroke, myocardial infarction, and thrombosis in trans women. *Expected events based on general population risk. CI, confidence interval; n/a, not available.

Trans men

Disease type and Study	Trans men Total	Trans men Events	Cis women Total	Cis women Events	Relative risk (95% CI)	% Weight
Stroke						
Caceres et al. 2020	829	n/a	368220	n/a	1.8 (0.7, 4.4)	5.85
Getahun et al. 2018	2118	16	20807	n/a	1.3 (0.7, 2.5)	9.02
Karalexi et al. 2022	932	0	8772	5	0.2 (0.0, 89.9)	0.15
Nota et al. 2019	1358	6	1358*	3.49*	1.7 (0.8, 3.9)	6.58
Quinn et al. 2017	2892	42	28549	360	1.1 (0.8, 1.6)	15.88
Wierckx et al. 2013	138	0	414	3	0.2 (0.0, 11.4)	0.38
Subgroup, DL (I^2 = 0.0%, p = 0.743)					1.3 (1.0, 1.6)	37.87
Myocardial infarction						
Caceres et al. 2020	829	n/a	368220	n/a	2.3 (1.0, 5.2)	6.36
Getahun et al. 2018	2118	9	20807	n/a	1.3 (0.5, 3.6)	4.69
Nota et al. 2019	1358	11	1358*	2.98*	3.7 (2.0, 6.7)	9.67
Quinn et al. 2017	2892	17	28549	210	0.8 (0.5, 1.3)	11.84
Wierckx et al. 2013	138	0	414	0	1.0 (0.0, 92.0)	0.31
Subgroup, DL (I^2 = 75.1%, p = 0.003)					1.7 (0.8, 3.6)	32.86
Thrombosis						
Getahun et al. 2018	2118	23	20807	n/a	1.1 (0.6, 2.1)	9.19
Karalexi et al. 2022	932	0	8772	10	0.1 (0.0, 47.6)	0.16
Nota et al. 2019	1358	2	1358*	4.84*	0.4 (0.1, 2.4)	1.85
Poteat et al. 2021	25	1	517	10	1.6 (0.3, 8.0)	2.20
Quinn et al. 2017	2892	45	28549	266	1.7 (1.2, 2.3)	15.88
Subgroup, DL (I^2 = 6.8%, p = 0.368)					1.4 (1.0, 2.0)	29.28
Overall, DL (I^2 = 38.3%, p = 0.060)					1.4 (1.1, 1.8)	100.00

NOTE: Weights are from random-effects model

Figure 3. Forest plot of stroke, myocardial infarction, and thrombosis in trans men. *Expected events based on general population risk. CI, confidence interval; n/a, not available.

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TAKE HOME MESSAGES

- **Understudied** : denk aan thalidomide
- **Underdiagnosed** & **undertreated** : begin bij risicofactoren. Alle risicofactoren.
- **Underrecognized** : onderrepresentatie in studies, groeimarge voor wetenschappers
- Uitdagingen in de nabije toekomst : gendergeneeskunde
- … maar is het politiek klimaat hier klaar voor?

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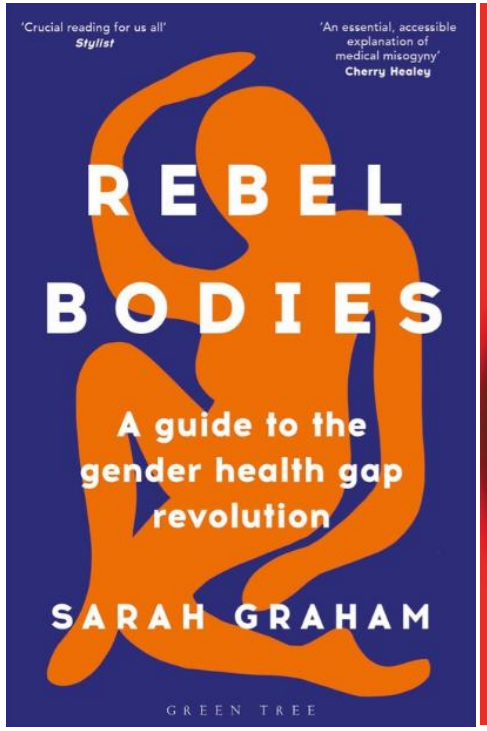
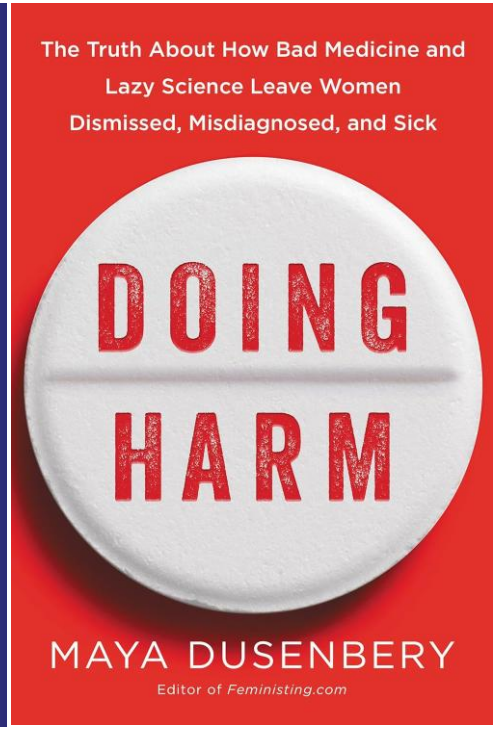
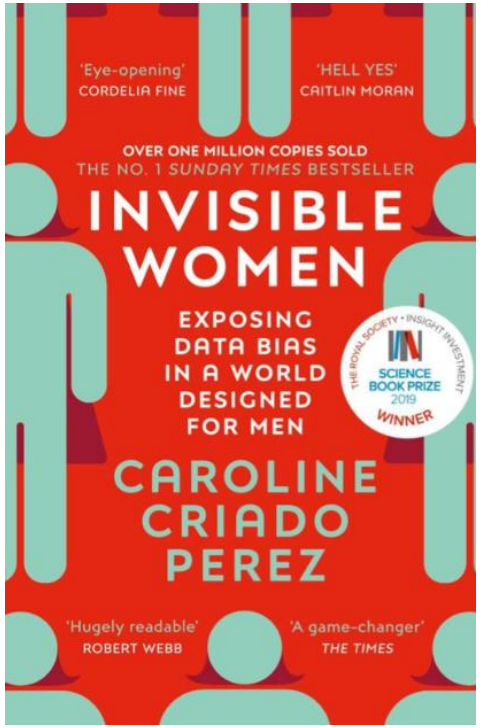
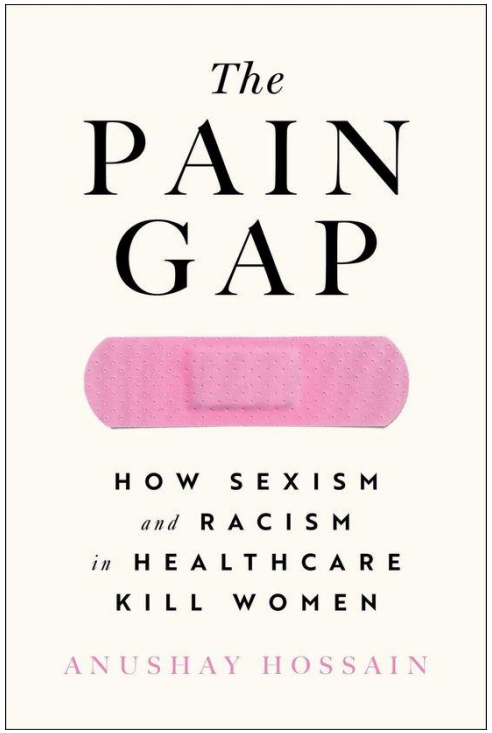
- Tijd voor vrouwelijk leiderschap in de geneeskunde

MORE?









VUB RHEA RESEARCH CENTRE GENDER, DIVERSITY & INTERSECTIONALITY

rebelle
VROUWEN* DIE HUN WERELD VERANDEREN

rosa

DANKUWEL

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