

WHERE HAVE ALL THE RUPTURES GONE?

Dr. Fadi Elias

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PRESENTER DISCLOSURE

Presenter: Dr. Fadi Elias

- I have the following relationships with commercial interests:
 - **Speakers Bureau/Honoraria:** Cook Medical, Boston Scientific

THE PROBLEM

- Is there a decrease in rupture rates?
- Local, national, international?
- What is contributing to this?
- What are the implications ?

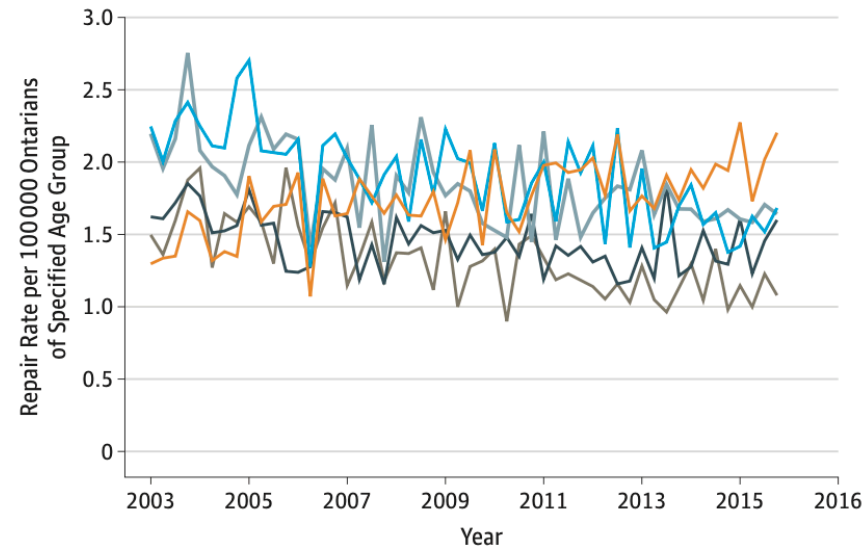




Original Investigation | Surgery

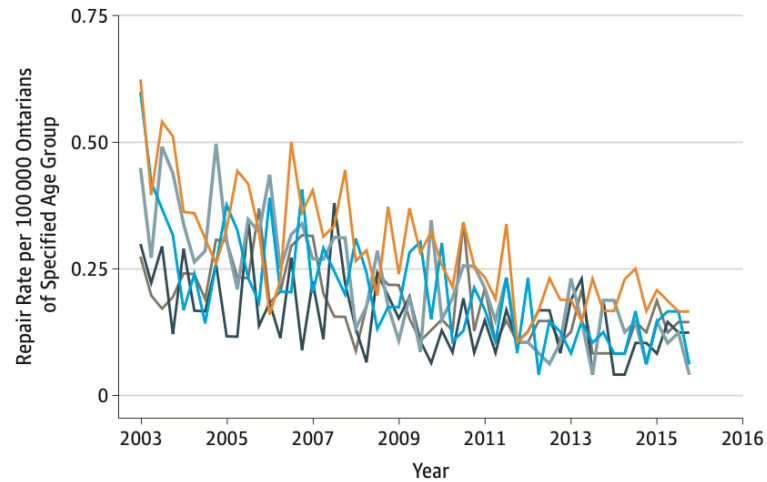
Prevalence of Elective and Ruptured Abdominal Aortic Aneurysm Repairs by Age and Sex From 2003 to 2016 in Ontario, Canada

Konrad Salata, MD; Mohamad A. Hussain, MD, PhD; Charles de Mestral, MD, PhD; Elisa Greco, MD, MEd; Muhammad Mamdani, PharmD, MPH, MA; Thomas L. Forbes, MD; Deepak L. Bhatt, MD, MPH; Subodh Verma, MD, PhD; Mohammed Al-Omran, MD, MSc

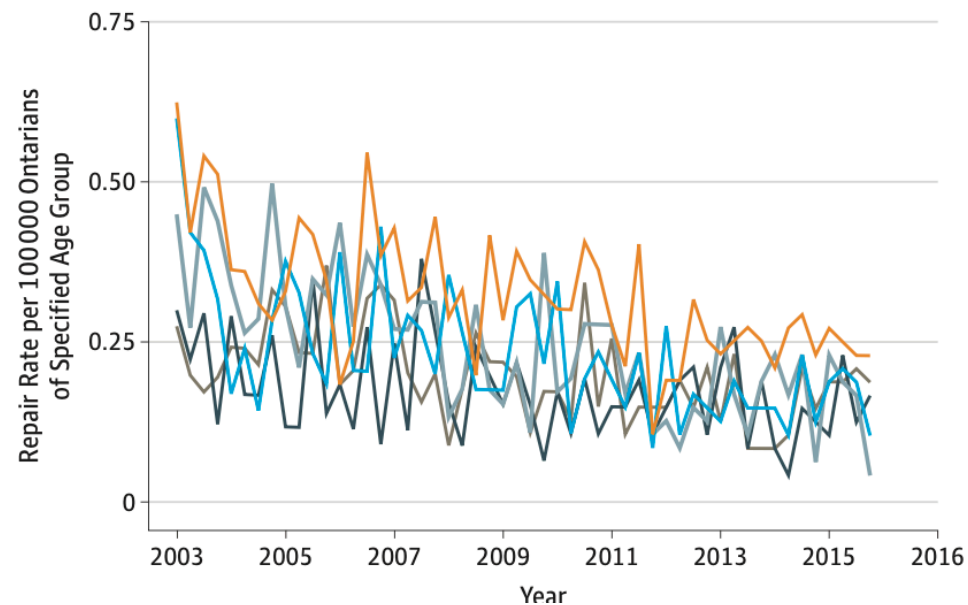


ONTARIO

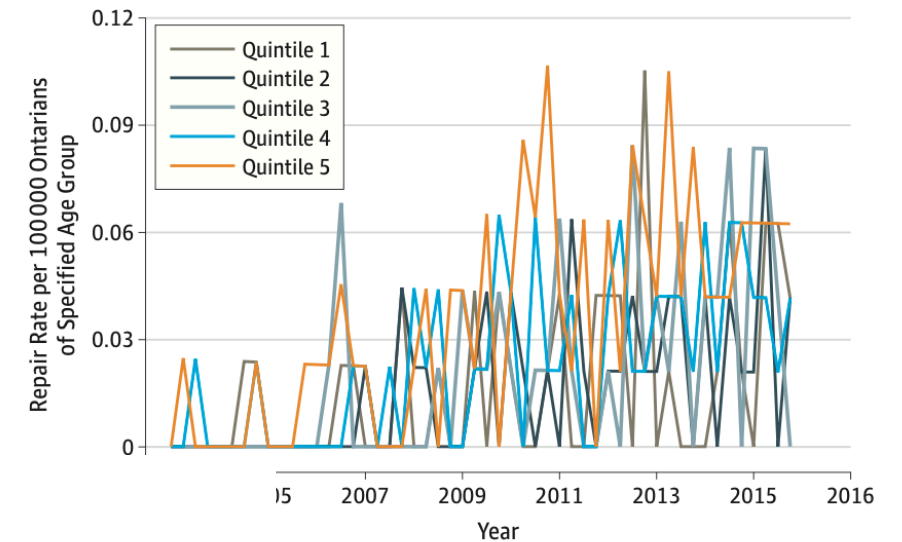
B Ruptured open surgical repair



A Overall



C Ruptured endovascular aortic repair



*Decrease not significant among women




Annals of Vascular Surgery

Volume 95, September 2023, Pages 62-73



Abdominal Aortic Aneurysms

Trends in Incidence of Abdominal Aortic Aneurysm Rupture, Repair, and Mortality in Nova Scotia

Claudia L. Cote¹  , Samuel Jessula², Young Kim³, Matthew Cooper⁴, Garrett McDougall⁵,
Patrick Casey⁶, Anahita Dua², Min S. Lee⁶, Matthew Smith⁶, Christine Herman^{1 6}

NOVA SCOTIA

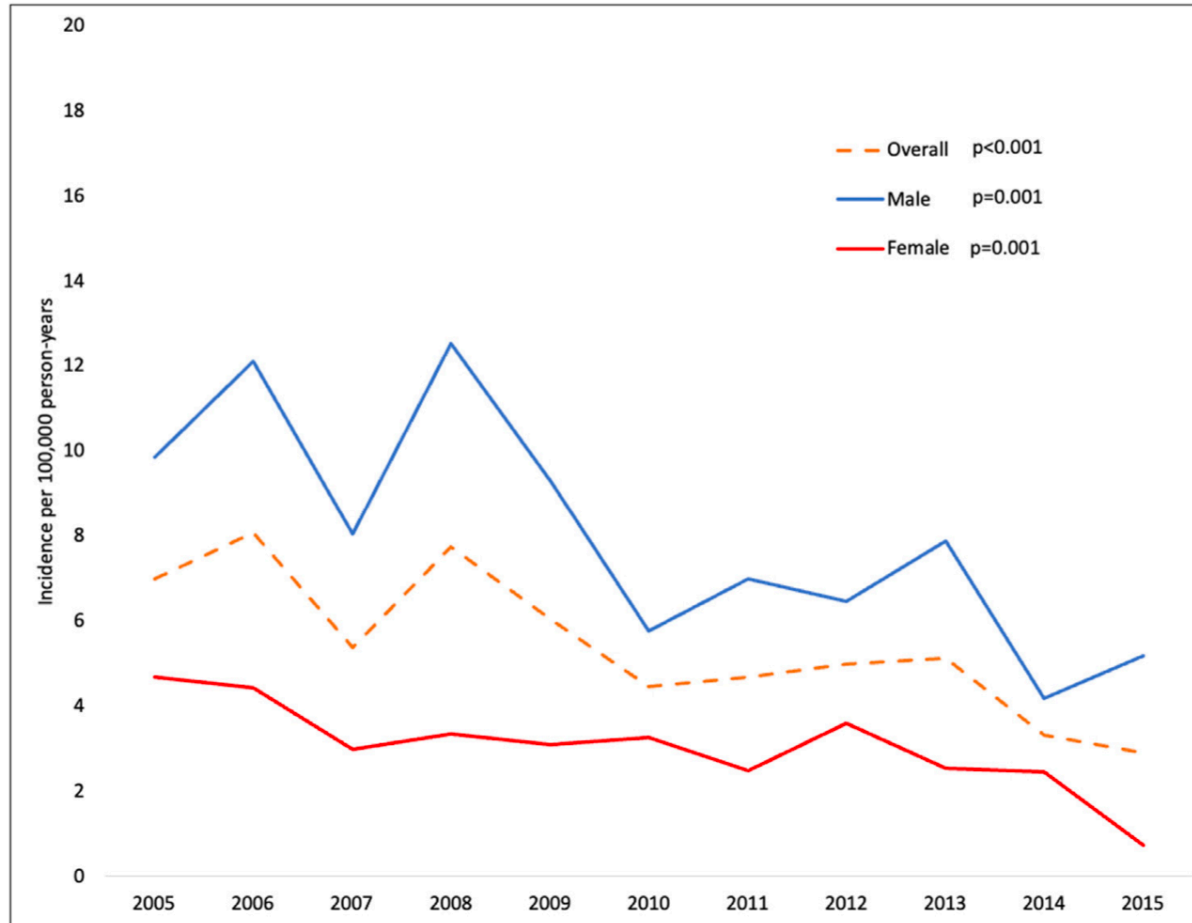


Fig. 4. Incidence of Ruptured Abdominal Aortic Aneurysm. Age-adjusted incidence of ruptured abdominal aortic aneurysm demonstrating a statistically significant decreasing trend from 2005 to 2015 in males, females and overall.

Geographic disparities in the burden of ruptured and unruptured abdominal aortic aneurysms

Jonathan Misskey, MD,^a Meric Osman, MSc,^b and David Kopriva, MDCM, FRCS(C),^{c,d} *Vancouver, British Columbia; and Saskatoon and Regina, Saskatchewan, Canada*

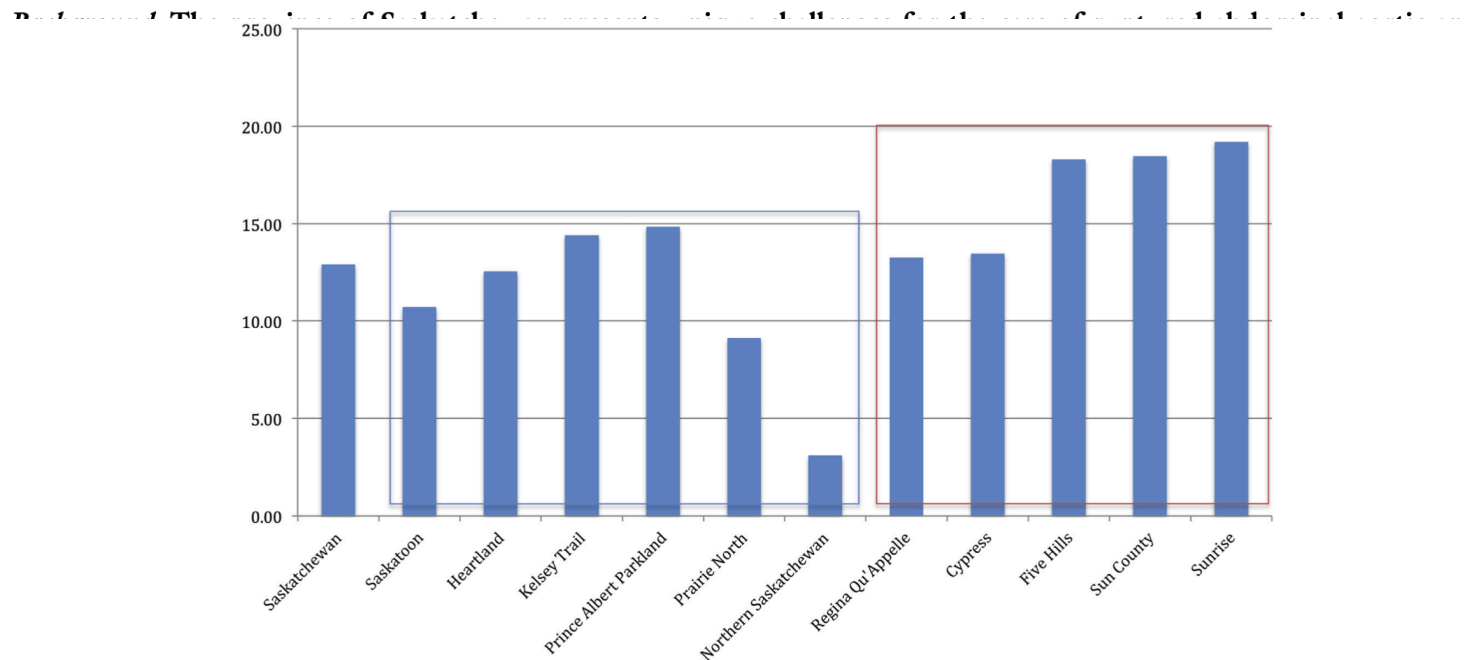


Fig 5. Hospital separations with a primary diagnosis of unruptured abdominal aortic aneurysm (AAA) per 100,000 person-years. Data are shown for the province of Saskatchewan and each health region, grouped by regions that refer cases primarily to Saskatoon (blue box) and regions that refer primarily to Regina (red box).

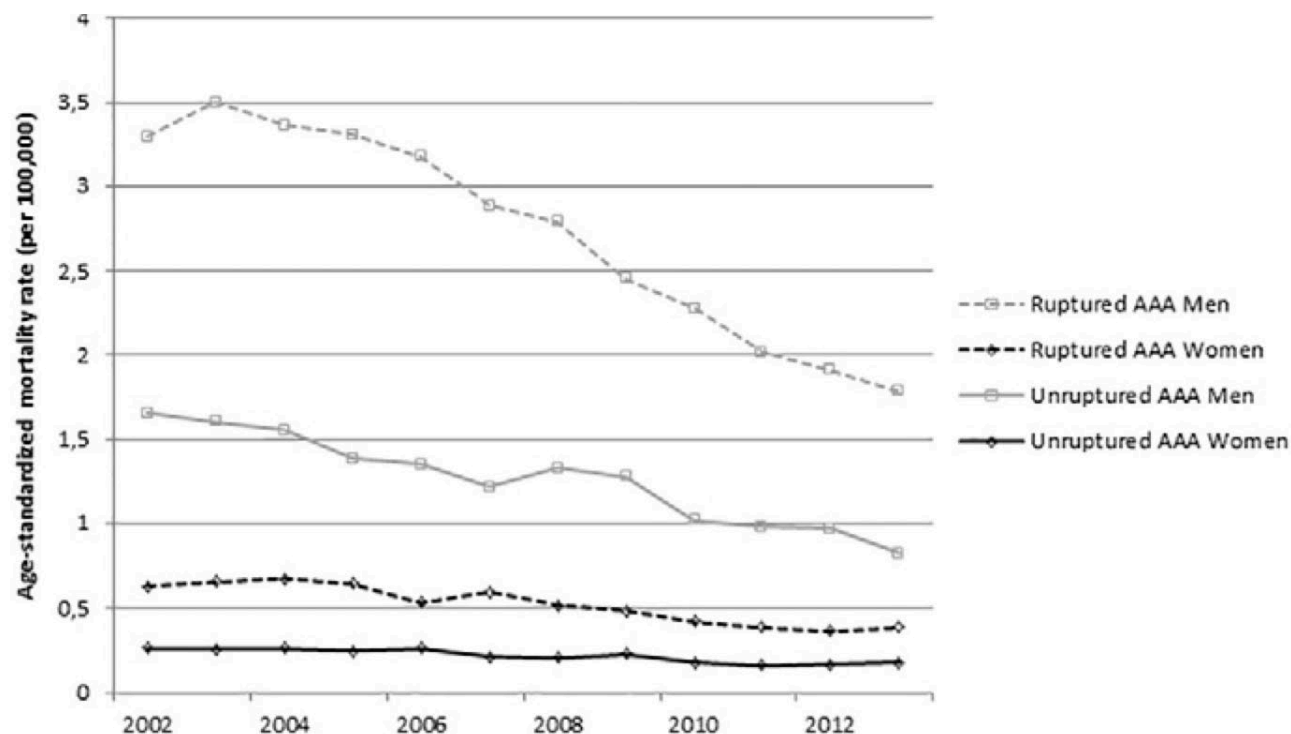
Time trends in hospital admissions and mortality due to abdominal aortic aneurysms in France, 2002–2013

M. Robert ^{a,1}, Y. Juillière ^{b,1}, A. Gabet ^{a,1}, S. Kownator ^{c,1}, V. Olié ^{a,*,1}

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^b Department of Cardiology, Nancy University Hospital, Vandoeuvre-lès-Nancy, France

^c Cardiology Center, Thionville, France



- Rate of patients hospitalized for RAAA has decreased by 20% in men and women.

Epidemiology of ruptured abdominal aortic aneurysms in a well-defined Norwegian population with trends in incidence, intervention rate, and mortality

Andreas Reite, MD,^a Kjetil Søreide, MD, PhD,^{b,e} Christian Lycke Ellingsen, MD,^{c,f}
Jan Terje Kvaløy, PhD,^{d,g} and Morten Vetrhus, MD, PhD,^a *Stavanger, Bergen, and Oslo, Norway*

NORWAY

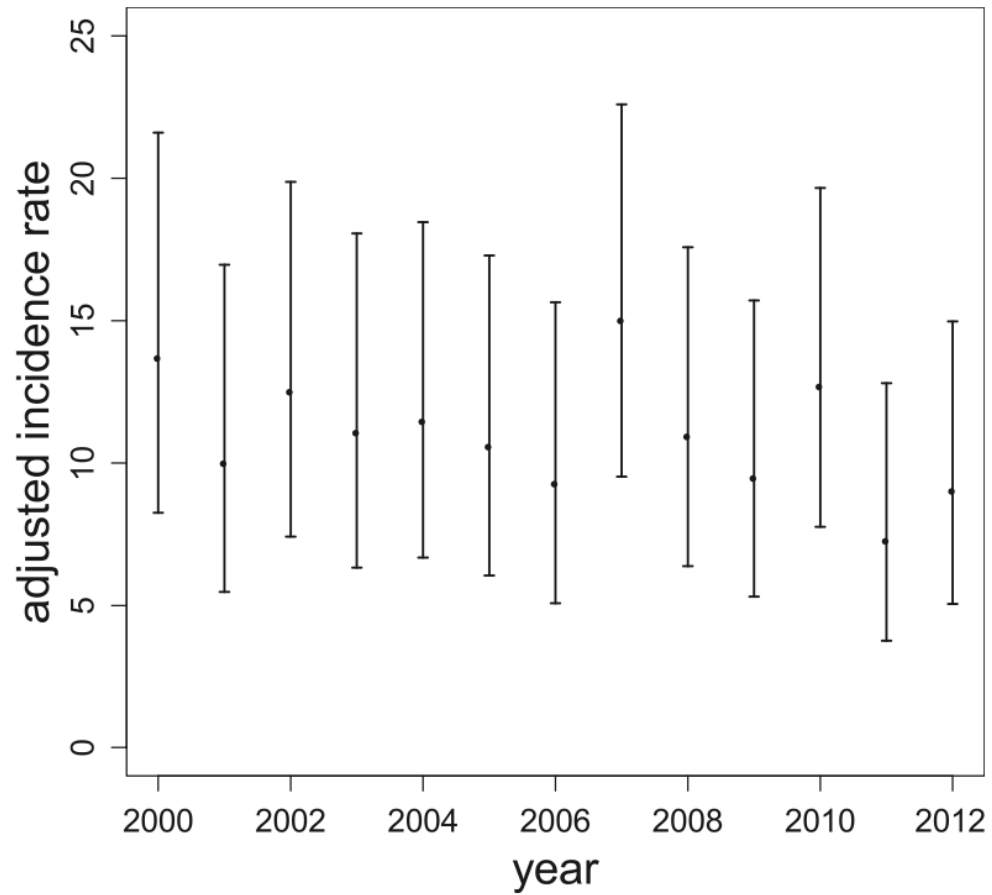


Fig 1. Adjusted incidence rate.

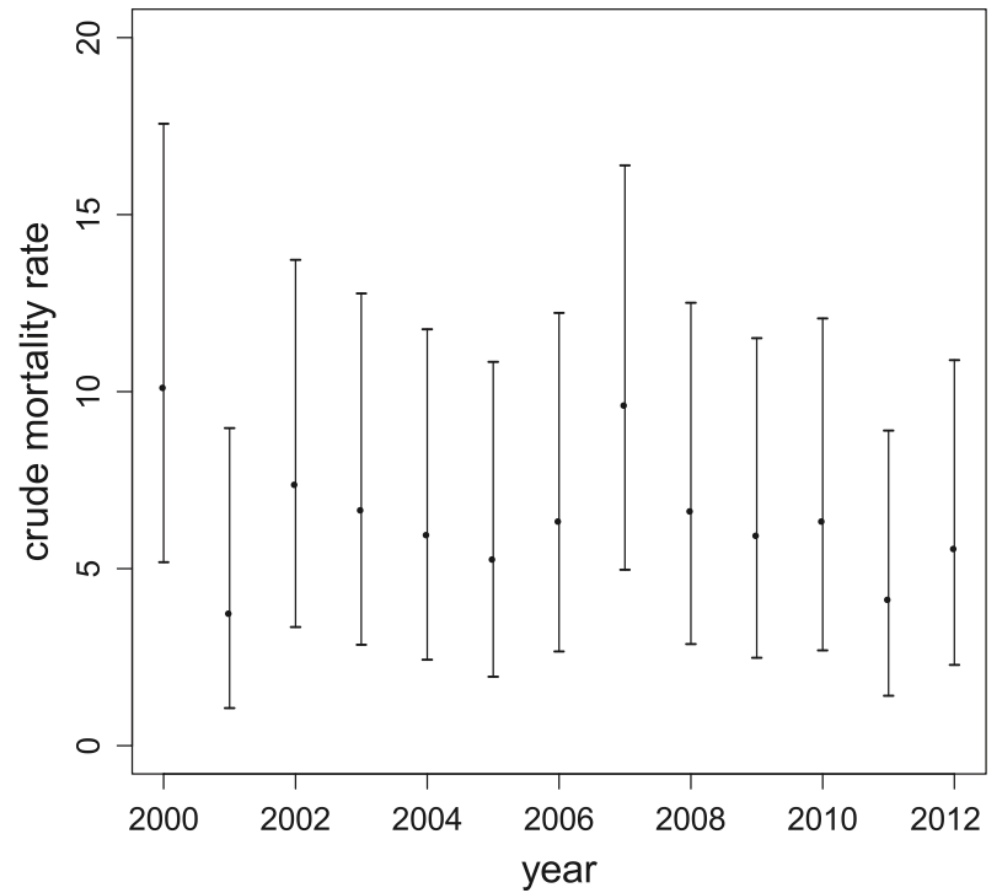


Fig 4. Crude mortality rate.

Increasing incidence of ruptured abdominal aortic aneurysm: A population-based study

Stefan Acosta, MD, PhD,^a Mats Ögren, MD, PhD,^b Henrik Bengtsson, MD, PhD,^c David Bergqvist, MD, PhD,^b Bengt Lindblad, MD, PhD,^a and Zbigniew Zdanowski, MD, PhD,^a *Malmö, Uppsala, and Ängelholm, Sweden*

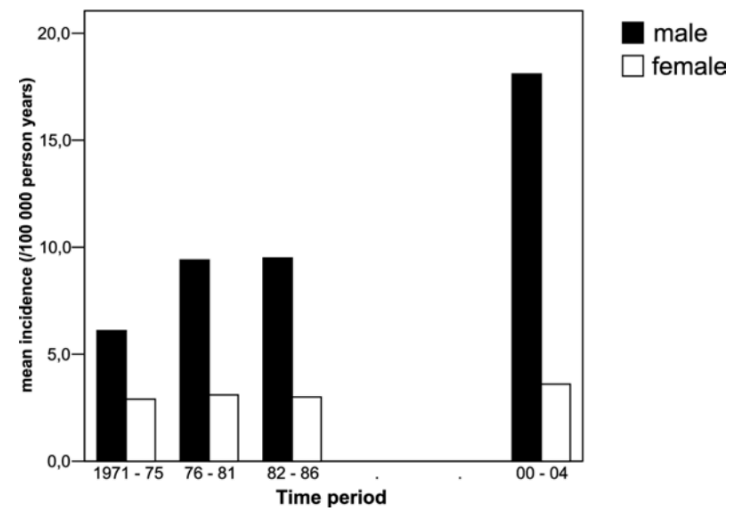
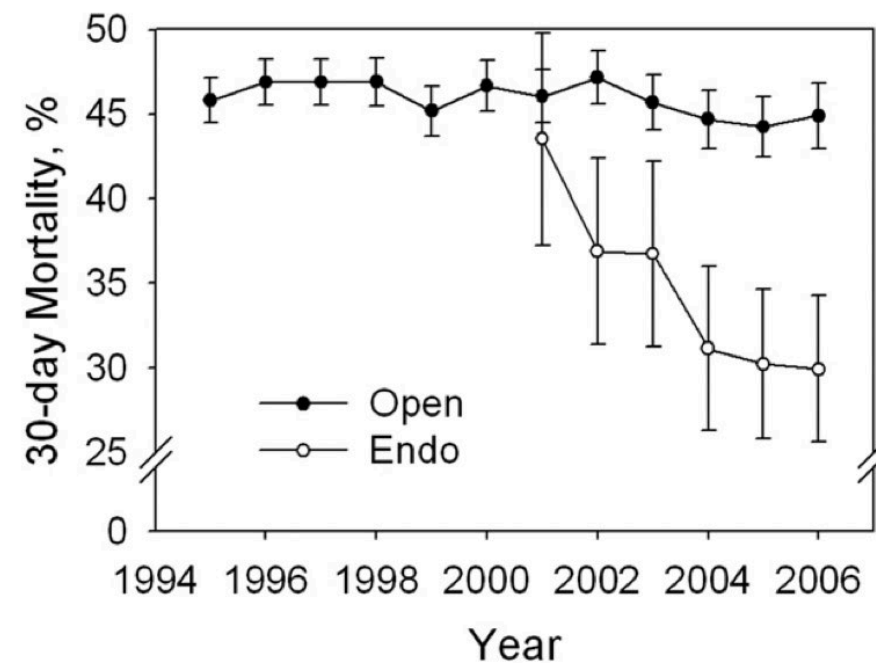
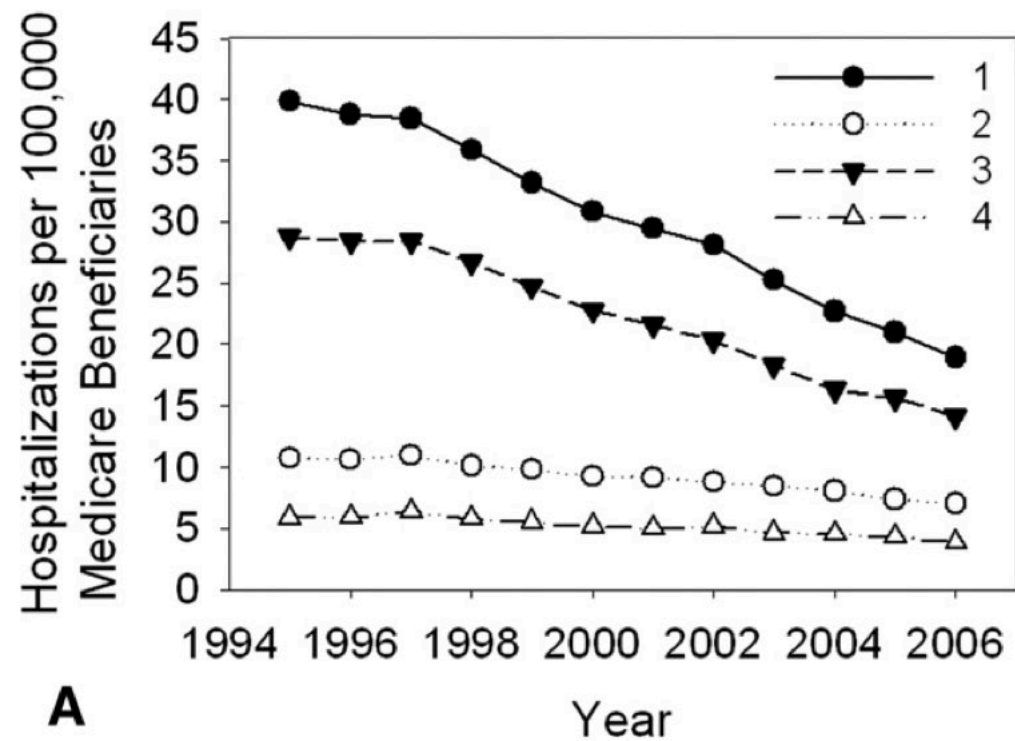


Fig 2. Total population incidence of ruptured abdominal aortic aneurysm in Malmö: evolution between 1971 and 2004.

From the Society for Clinical Vascular Surgery

National trends in the repair of ruptured abdominal aortic aneurysms

Leila Mureebe, MD,^a Natalia Egorova, PhD, MPH,^b Jeannine K. Giacobelli, MD,^b
Annetine Gelijns, PhD,^b K. Craig Kent, MD,^a and James F. McKinsey, MD,^a *New York, NY*



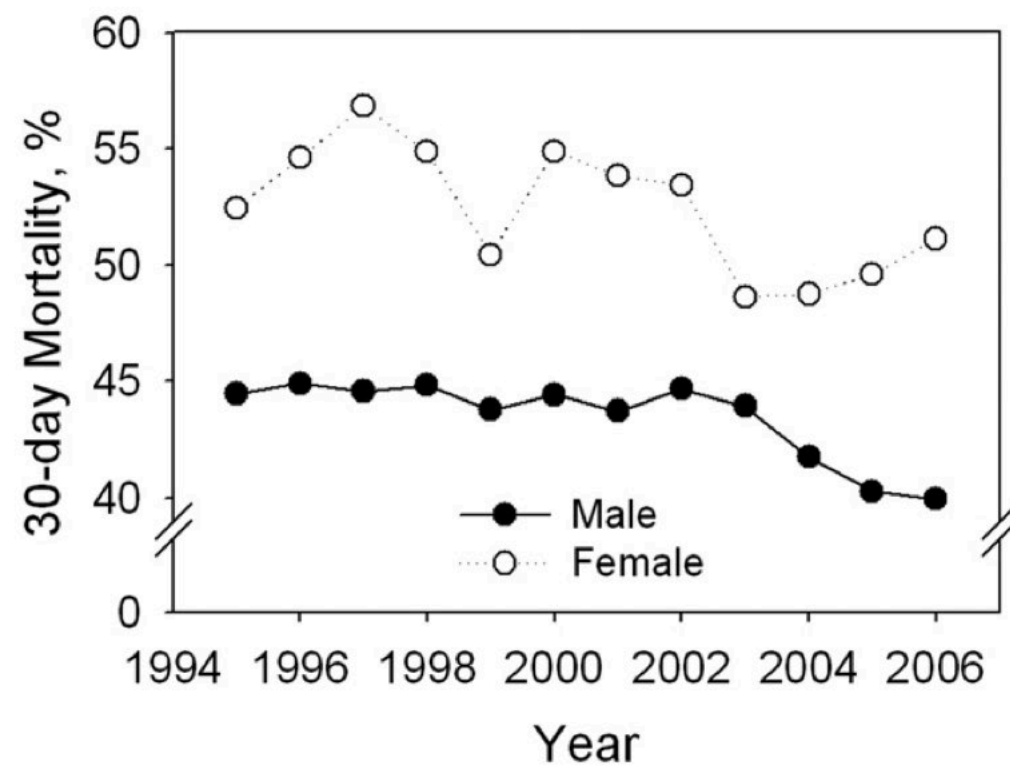
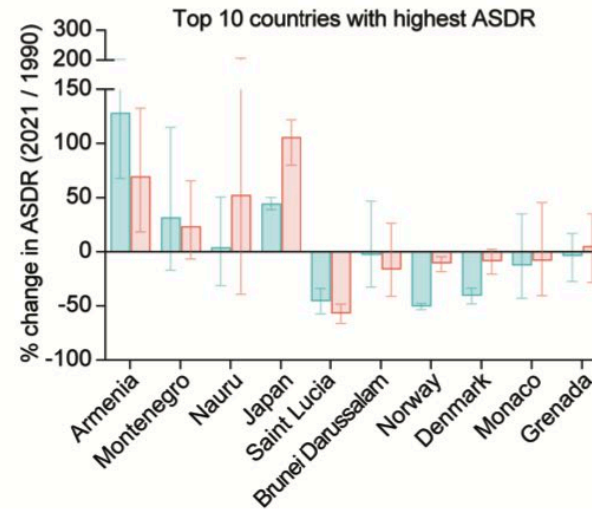
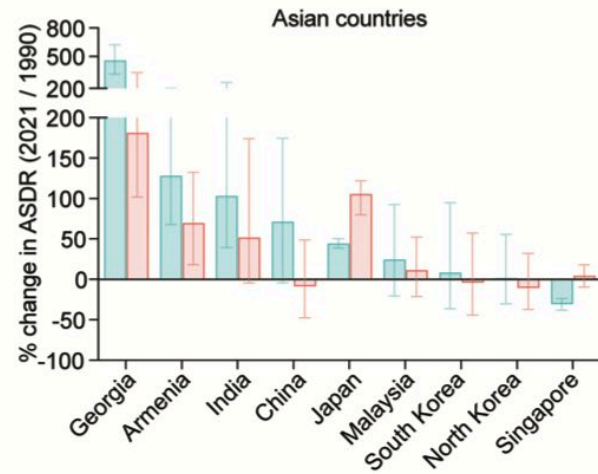
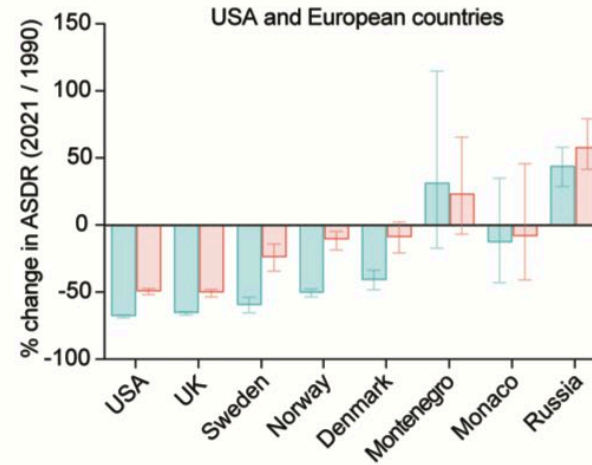
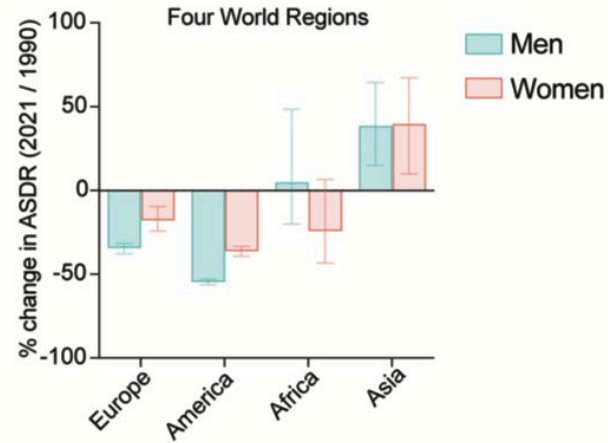


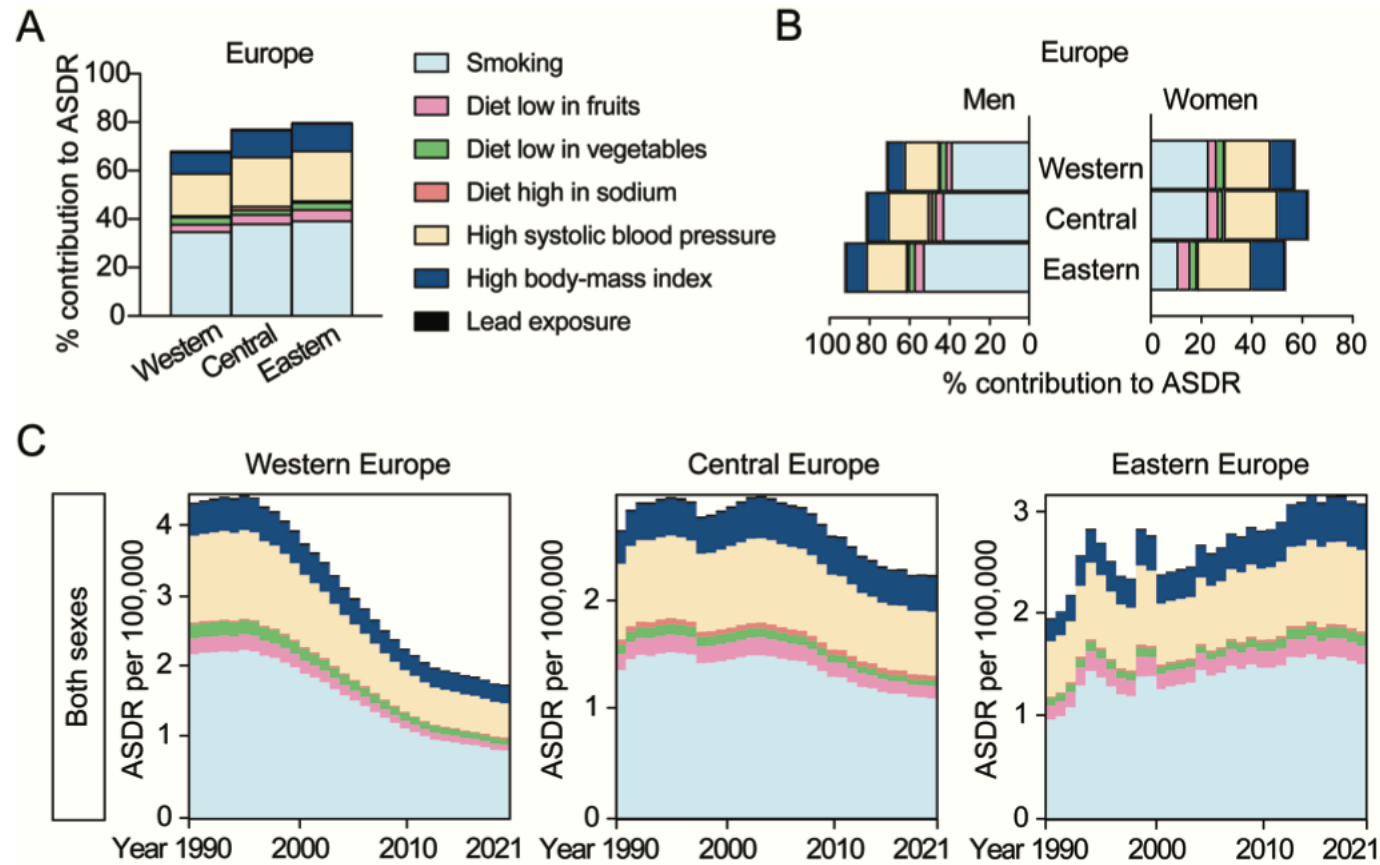
Fig 6. Trend in 30-day mortality after ruptured abdominal aortic aneurysm repair for men (*black circles*) and women (*white circles*).

WORLD

C



WORLD



JOURNAL ARTICLE

Explaining the decrease in mortality from abdominal aortic aneurysm rupture

Get access >

A Anjum, R von Allmen, R Greenhalgh, J T Powell ✉

British Journal of Surgery, Volume 99, Issue 5, May 2012, Pages 637–645,

<https://doi.org/10.1002/bjs.8698>

Published: 04 April 2012 **Article history** ▼

SMOKING

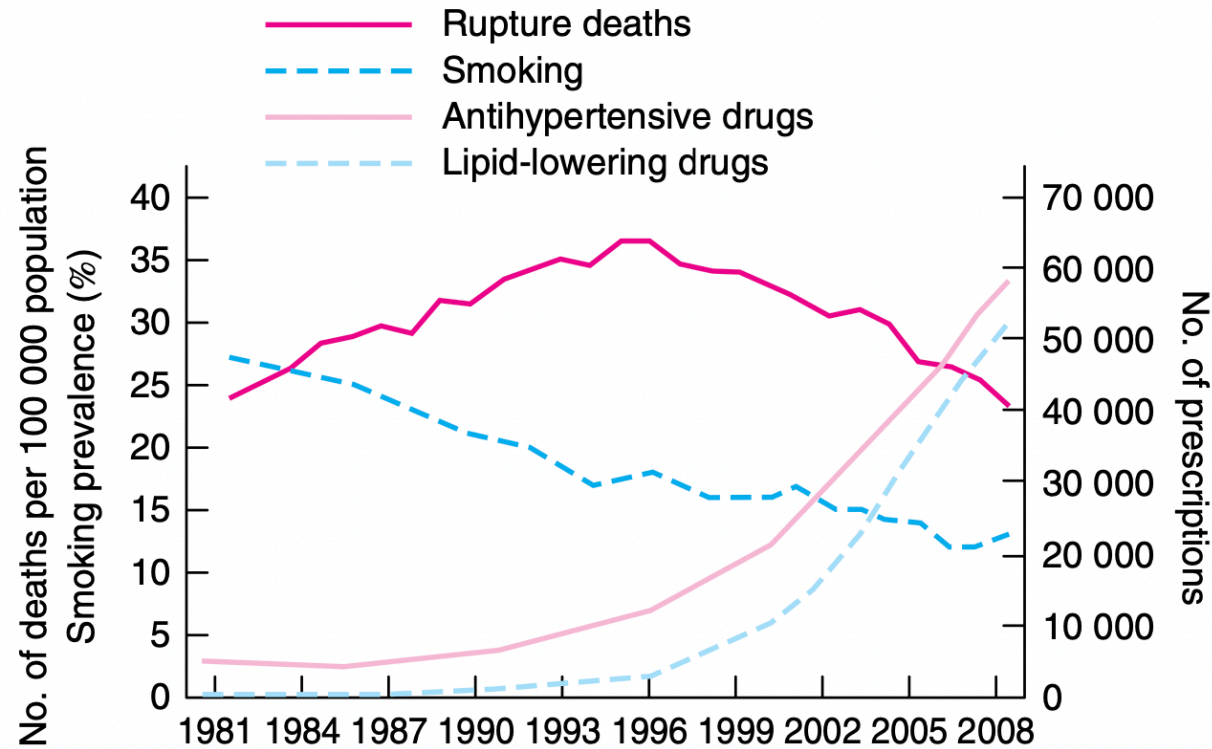


Fig. 5 Changes in deaths from abdominal aortic aneurysm rupture, prevalence of smoking among the total population aged over 65 years²⁶, and prescription of blood pressure- and lipid-lowering drugs¹⁰ in England and Wales, 1981–2009

THE SOLUTIONS

- Increased rates of elective repair of AAA
 - Endo > Open
 - CMD for TAAA
- Increased awareness of AAA
- Increased AAA screening
- CT assessments in ER, cancer screening
- Ultrasound assessments
- Decreased smoking rates

THE CONSIDERATIONS

- Lower limit of RAAA despite early detection improvements
- May not be equal across regions and patient populations
- Female patients have not necessarily incurred same benefit
- What is the profile of a contemporary rupture patient?

THE IMPLICATIONS

- Identification of rupture in ER
- “Code Rupture”
- Perioperative Care
 - Anesthesia
 - Nursing
 - ICU
- Surgical Experience
- Training future vascular surgeons