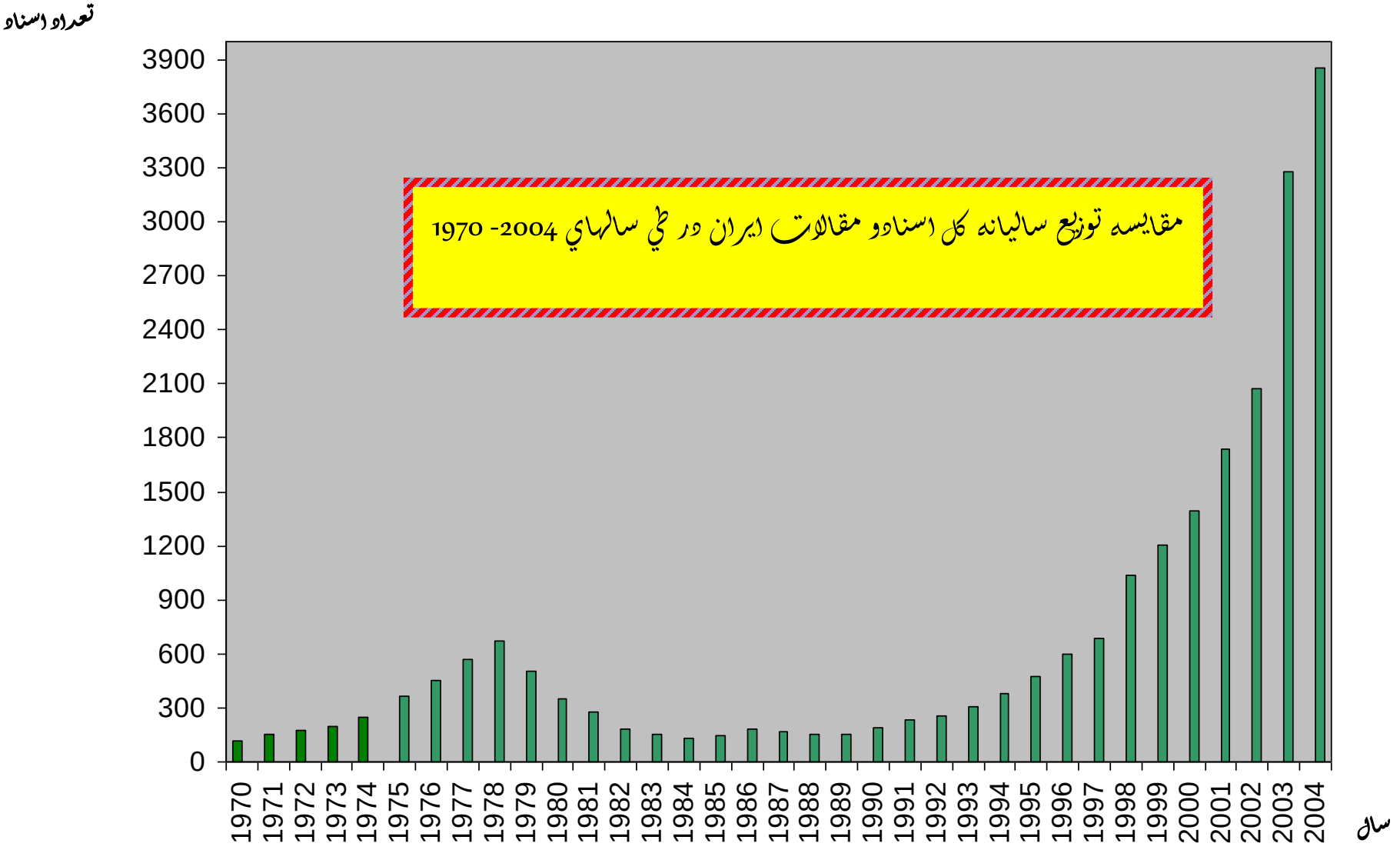
International Collaboration :Key in success of Medical Research

REZA MALEKZADEH M.D.
DDRI/TUMS
ICC/SBUMS 27/10/97


تعداد اسناد
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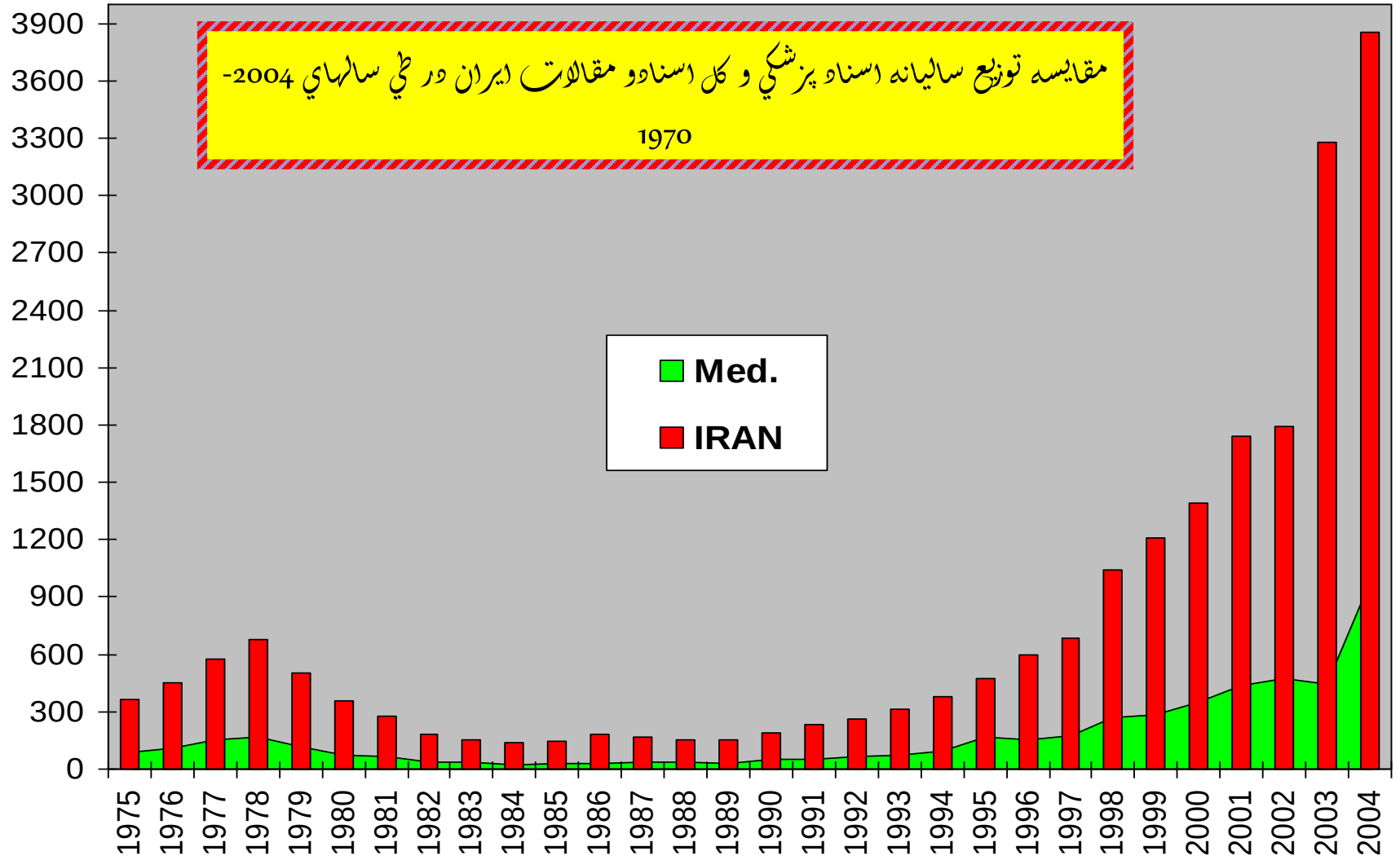
مقايسه توزيع ساليانه اسناد پزشكي و كل اسنادو مقالات ايران در طي سالهاي 2004-1970
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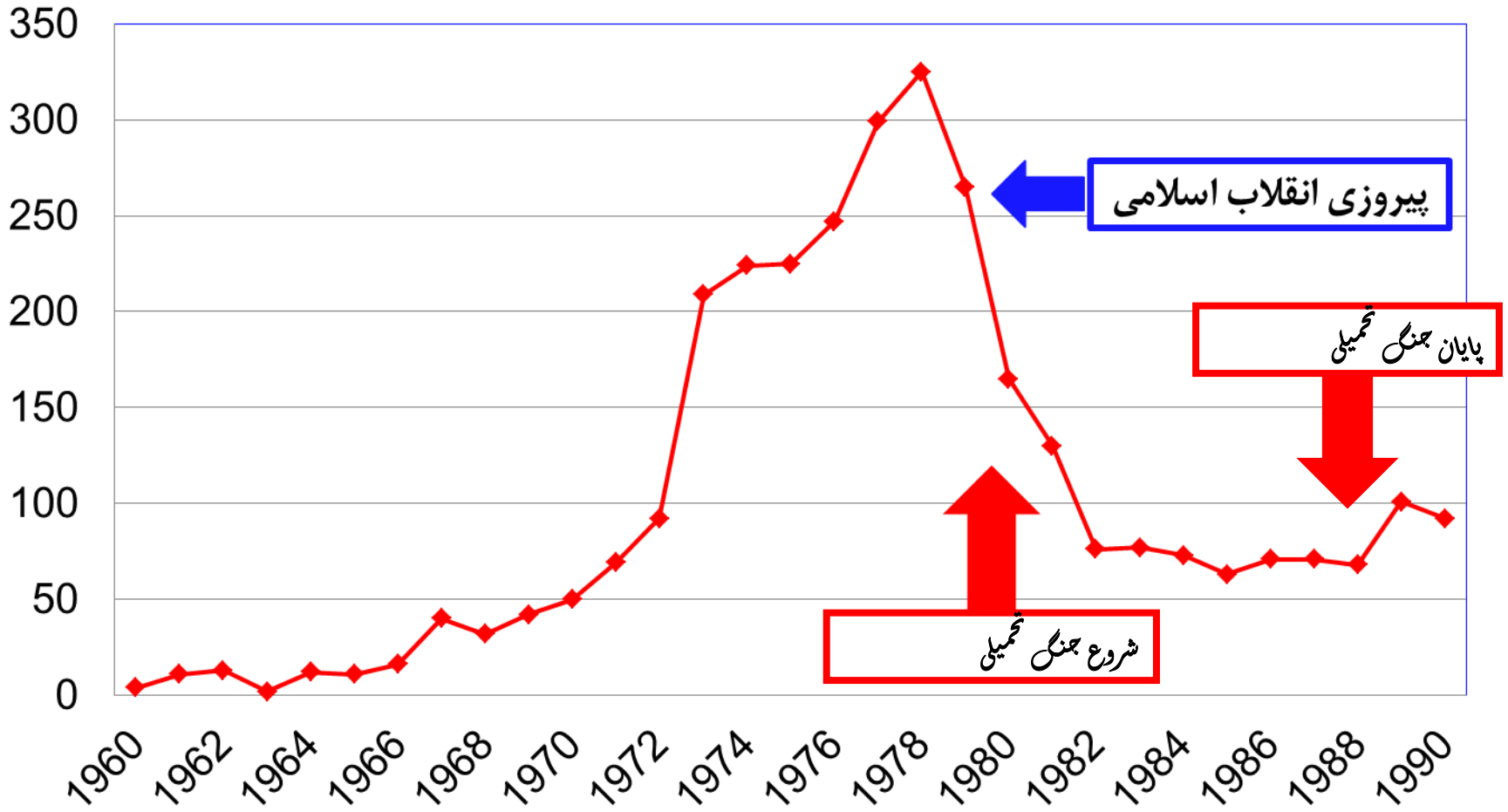
تولیدات علمی ایران قبل از پیروزی انقلاب اسلامی.

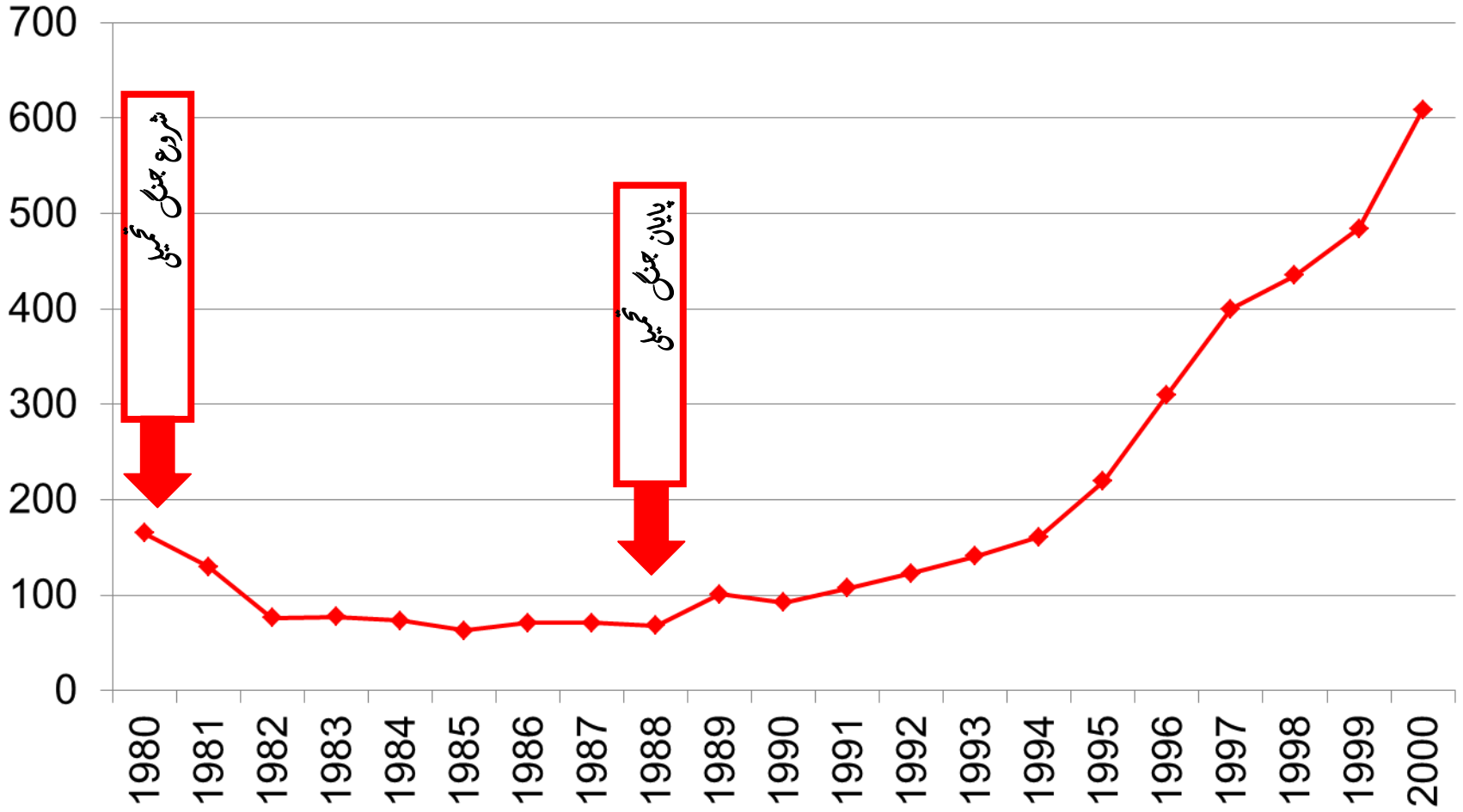
مقایسه تولید علم (تعداد مقالات) دو کشور ایران و ترکیه از سال ۱۹۶۸تا ۲۰۱۳بر اساس پایگاه استنادی ISI

	1968	1975	1978	1988	1998	2008	2011	2012	2013
Iran	5	372	670	165	1331	17387	28289	30025	29581
Turkey	12	253	357	895	6058	25125	30172	32322	34187

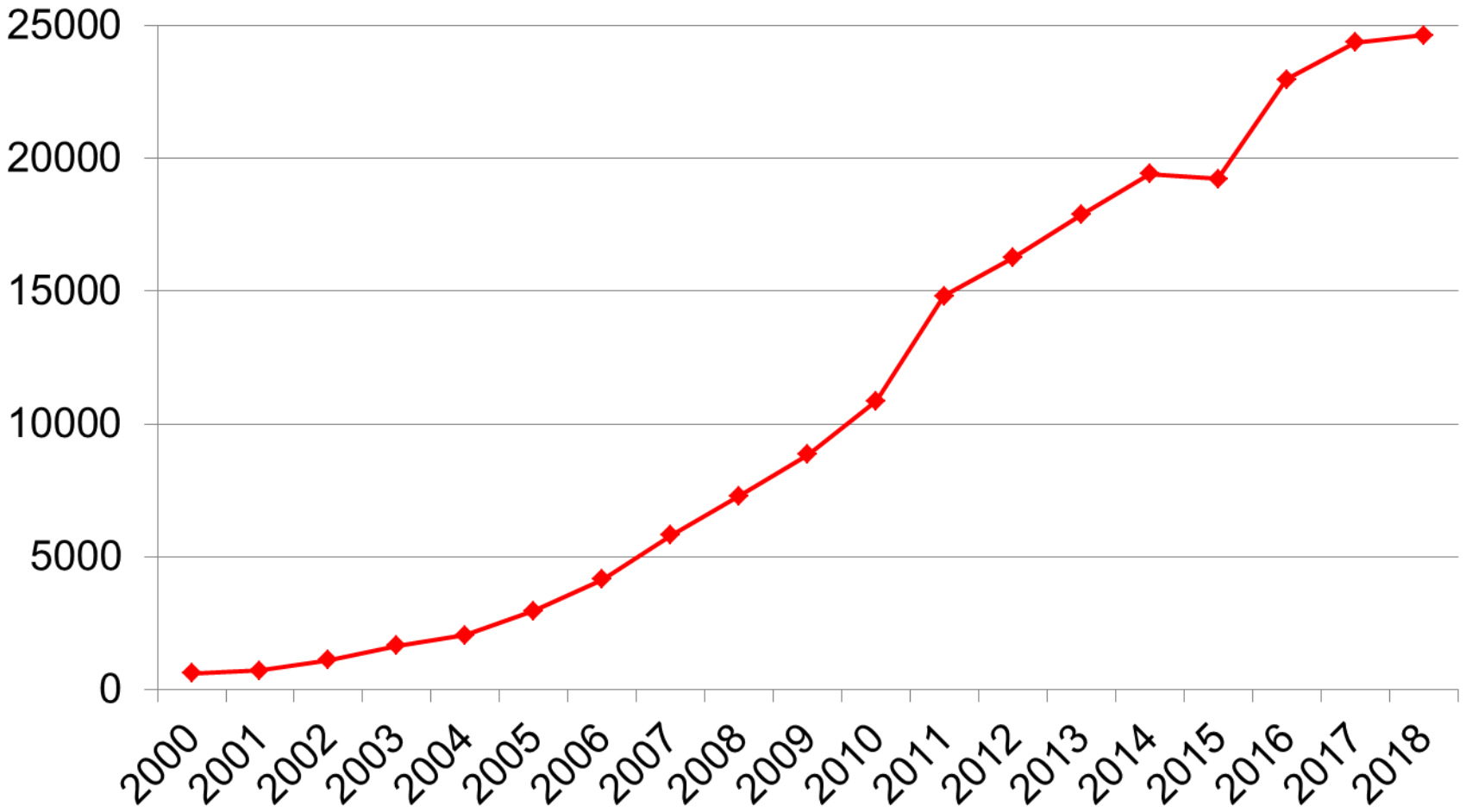
وضعیت مقالات علوم پزشکی ایران در بانک اطلاعاتی Scopus قبل و بعد از انقلاب اسلامی



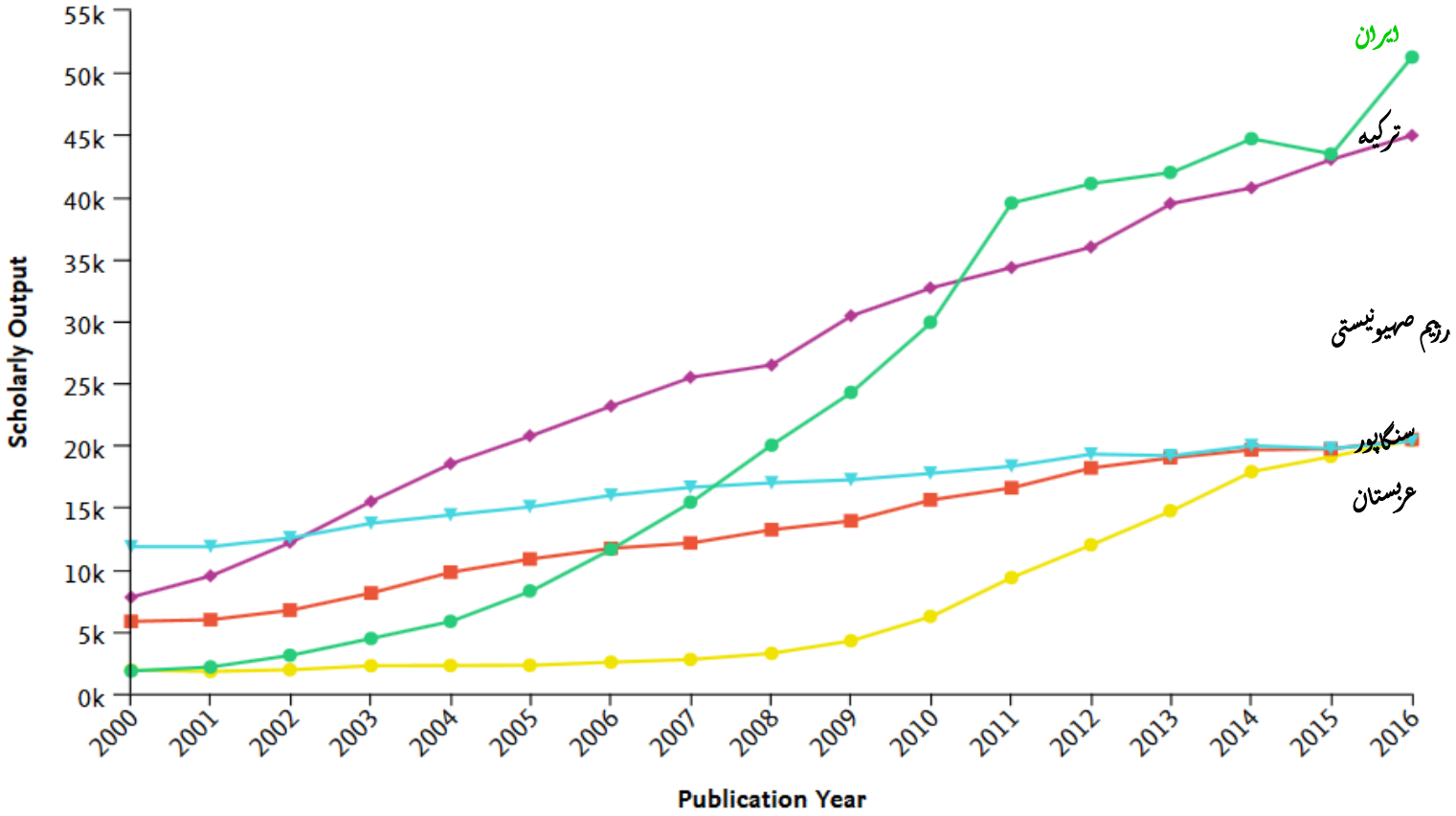
وضعیت مقالات علوم پزشکی ایران در بانک اطلاعاتی Scopus در طول جنگ تحمیلی و 10 سال پس از آن



وضعیت مقالات علوم پزشکی ایران در بانک اطلاعاتی Scopus در طول دو دهه اخیر



تعداد مقالات منتشرشده کشورهای منتخب منطقه در بانک اطلاعاتی Scopus در کل علوم



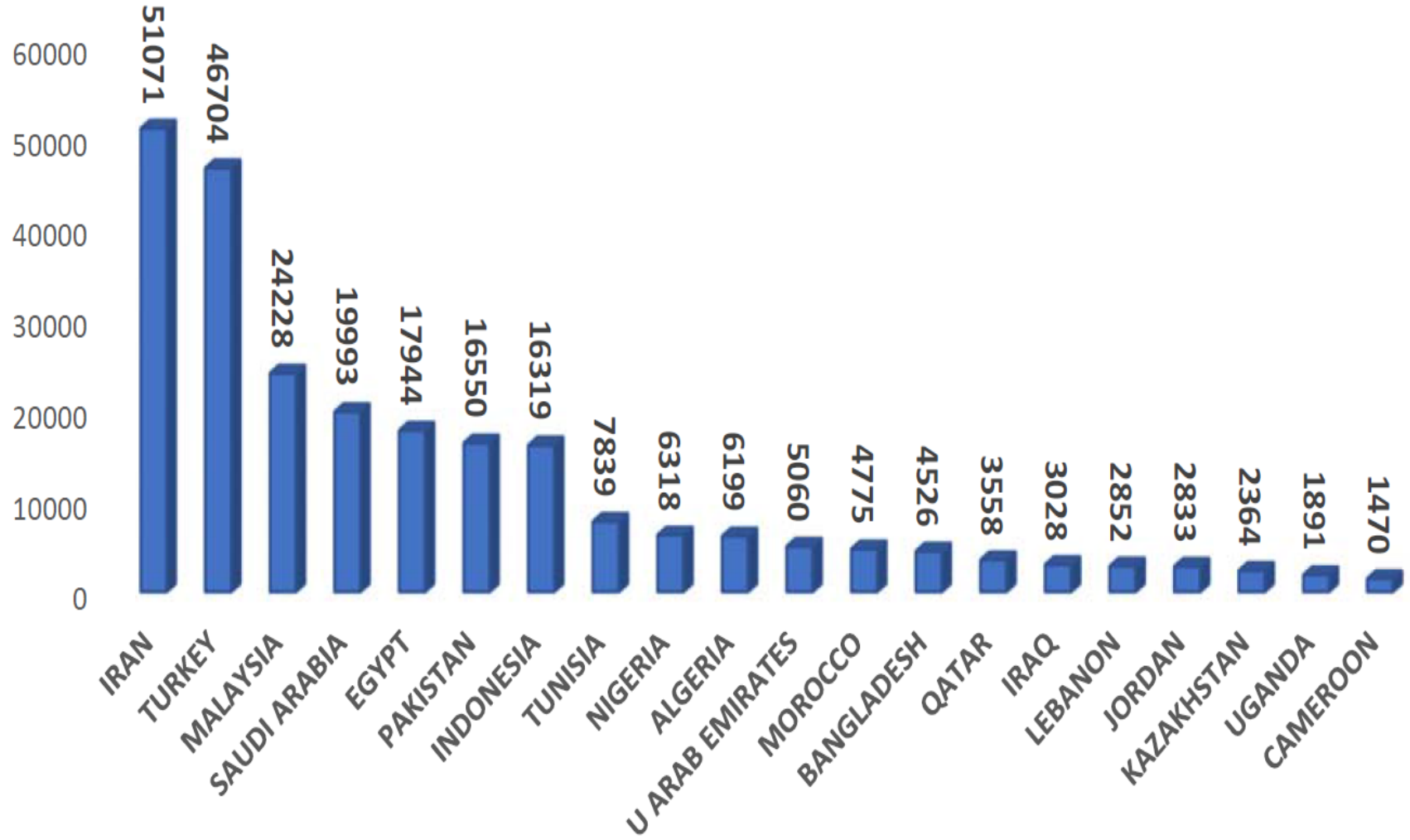
تعداد مقالات و استنادات منتشرشده در سال 2016 میلادی براساس Scopus کشورهای منتخب منطقه

کشور	تعداد مقالات	تعداد استنادات	استناد به ازای مقاله
ایران	51,889	84,955	1.6
ترکیه	45,746	50,625	1.1
رژیم صهیونیستی	20,527	49,321	2.4
عربستان سعودی	20,835	53,495	2.6
خاورمیانه	158,288	252,551	1.6
جهان	2,852,934	4,058,220	1.4

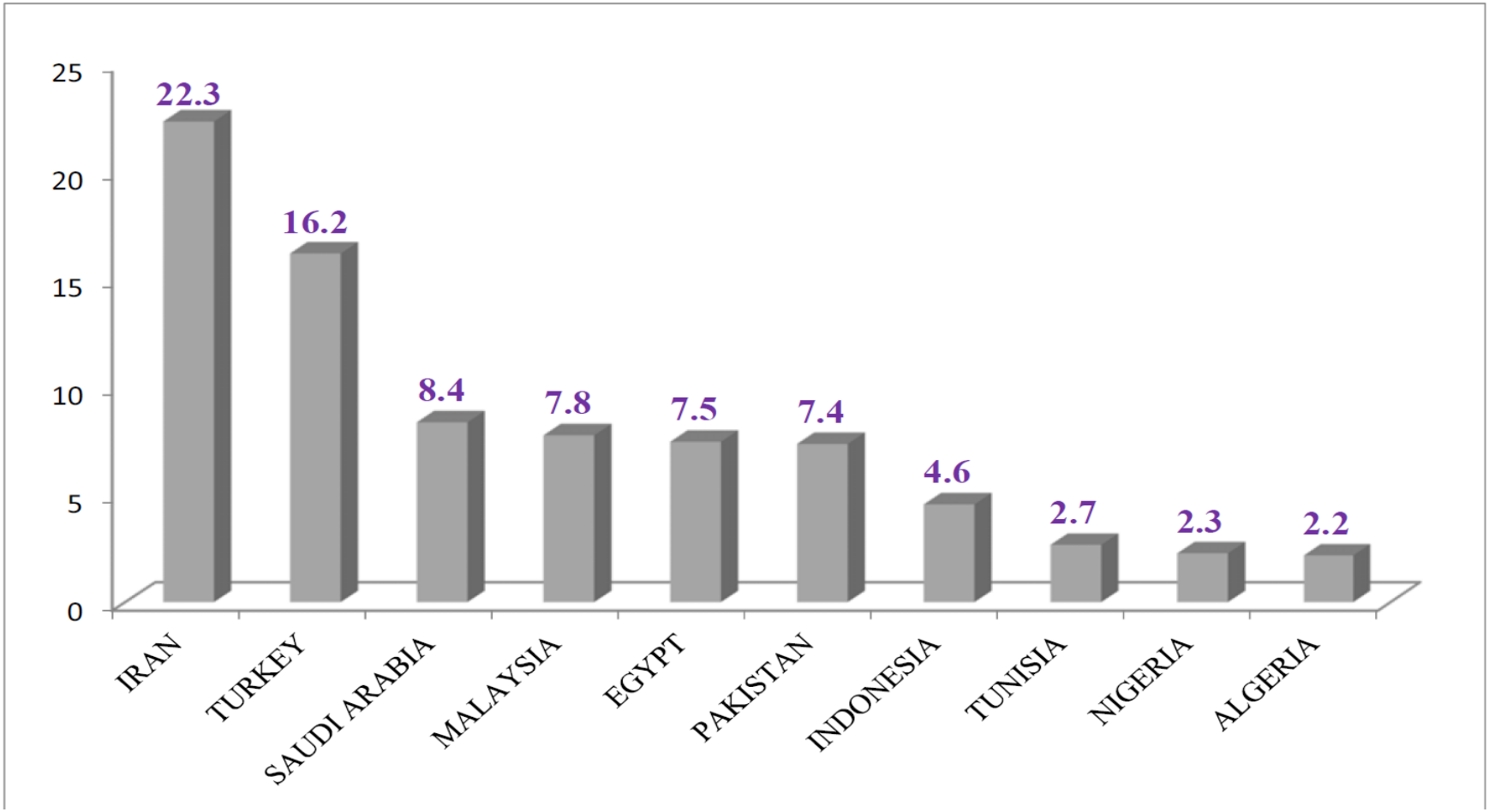
از نظر كميت توليد علم جمهوري اسلامي ا يرا ن در پايگاه بين المللي ISI بين همه (WOS)كشورهاي اسلامي در سال 2017 براي اولين بار رتبه نخست را كسب نموده است.

- ايران صدر نشين توليد علم كشورهاي اسلامي در كليه پايگاههاي استنادي بين المللي /
- سهم بيست و دو درصدي جمهوري اسلامي ايران از كل توليدات علمي 57 كشور اسلامي /
- استمرار افزايش توليد علم در كشورهاي اسلامي

کشورهای اسلامی برتر تولید کننده علم در سال ۲۰۱۷



سهم كشورهاي برتر اسلامي از نظر توليد علم در نيمه نخست سال 2018

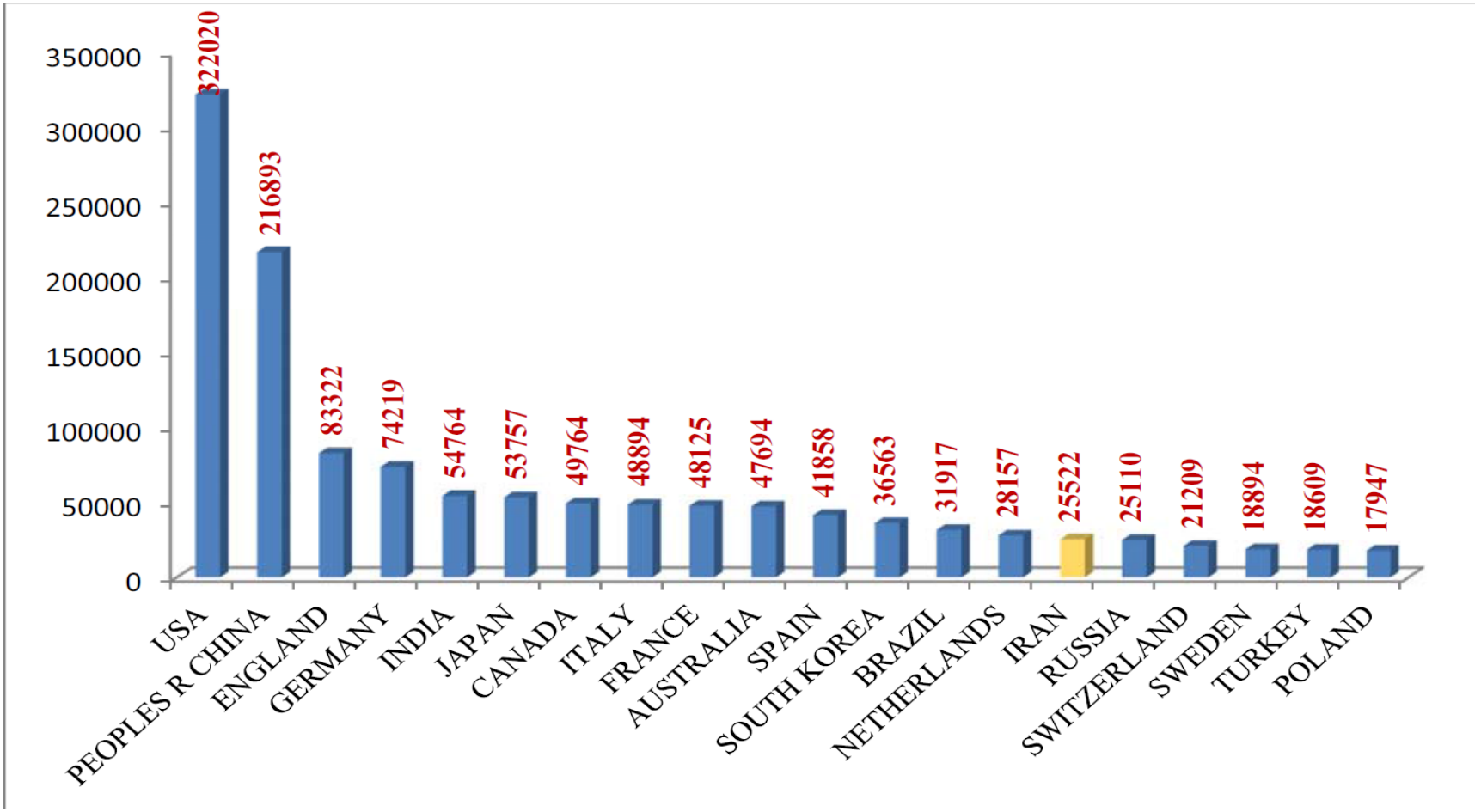


شاخص بسیار مهم کیفی::کیفیت تولید در ایران رشدی سریع تر از کمیت تولید علم داشته است!

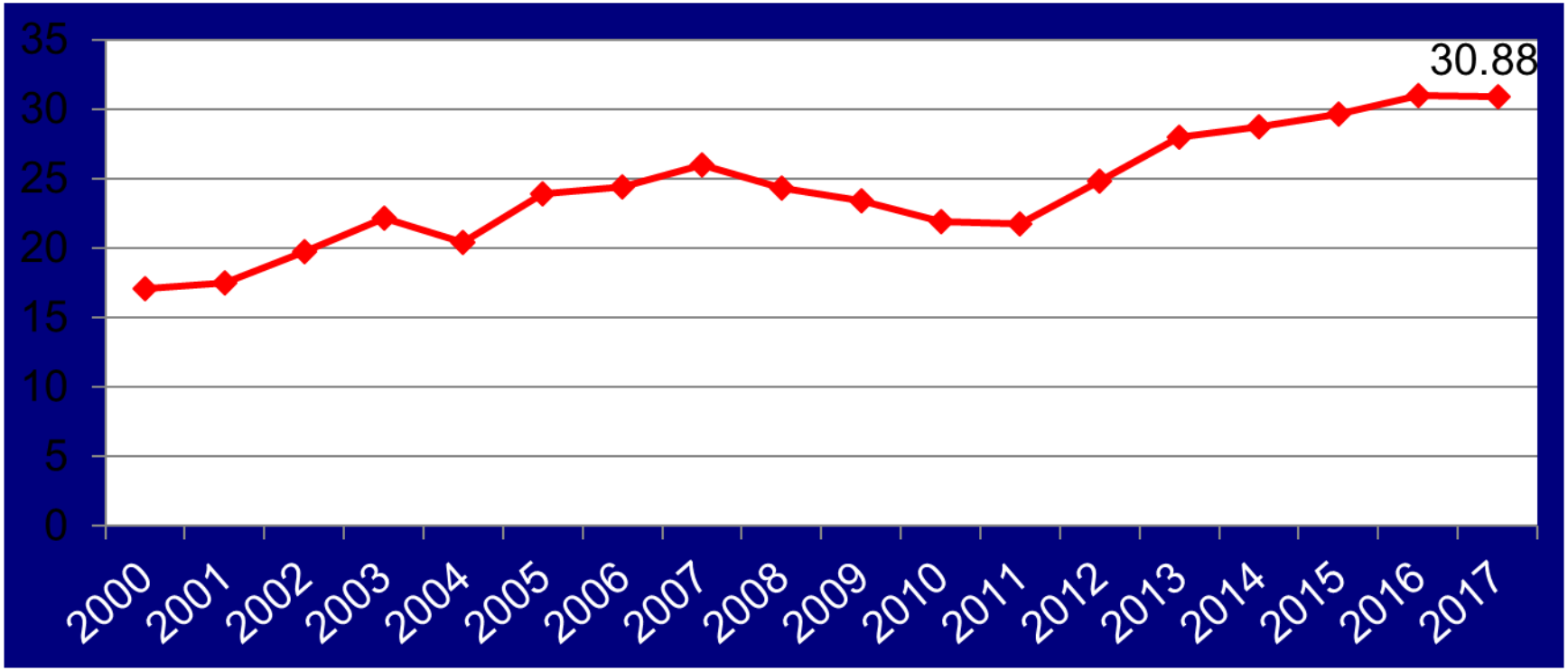
شش ماهه نخست سال 2018

- جمهوري اسلامي ايران براي نخستين بار توانسته است با ثبت بيش از 25500 مدرك در ISIشش ماهه نخست سال 2018 جزء پانزده كشور برتر جهان از نظر ميزان توليد علم قرار گيرد.
- پس از ايران كشورهاي روسيه، سويس، سوئد، تركيه و لهستان جايگاههاي شانزدهم تا بيستم را كسب كردهاند. كشورهاي ايالات متحده آمريكا، چين، انگلستان، آلمان .و هند نيز توانسته اند جايگاههاي نخست تا پنجم جهان ISI 74219و 54764 مدرك نمايه شده در ،83322 ،216893 ، به ترتيب با 322020را به خود اختصاص دهند.

۲۰کشور برتر دنیا از نظر تولید علم در 6 ماهه نخست سال 2018

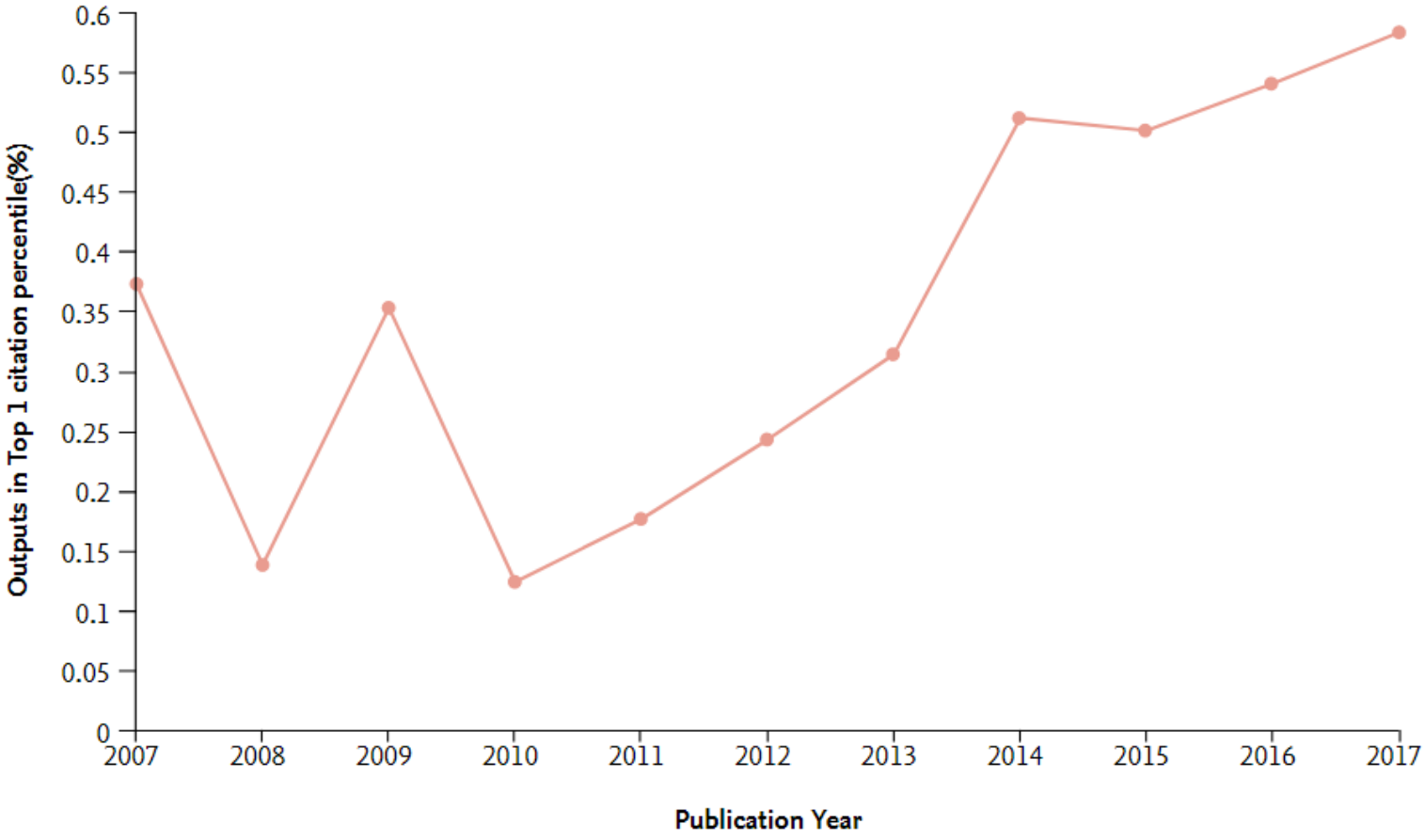


سهم مقالات دانشگاه‌های وزارت بهداشت از کل کشور در Scopus



سهم مقالات علوم پزشکی کشور منتشر شده در 1% مجلات برتر دنیا براساس شاخص SJR بانک اطلاعاتی Scopus

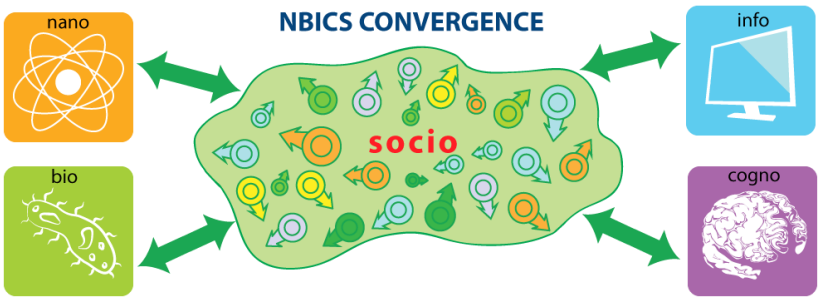
سهم مقالات علوم پزشکی کشور قرار گرفته در بین 1% مقالات پُراستناد دنیا براساس بانک اطلاعاتی Scopus



دستاوردهای شگرف علمي

- دستاوردهای شگرف علمي در سال‌هاي اخير جهشي را در فرايند تكامل فناوري‌هاي نوين رقم زده است. نتيجه آن، تغيير نگاه از توسعه"فناوري هاي در خدمت انسان" به خلق "فناوري هاي يكپارچه شده با كاربر" است.

- اين امر به معناي تحول جدي در ارتباط كاربران با محصولات و فناوري‌ها و در نظر گرفتن انسان به عنوان يك موجود شناختي در مركز طراحي و توسعه فناوري‌ها و محصولات است. اين محصولات چهره دنيا را تغيير خواهند داد و براي توسعه آن‌ها نياز به ايجاد يك حركت فرارشته‌اي و منجسم، اما چندوجهي، از طريق توسعه علوم و فناوري‌هاي همگرا است.



Collaborative research

- Collaborative research has become the mainstay in knowledge production across many domains of science and is widely promoted as a means of
- Cultivating research quality,
- Enhanced resource utilization.
- Improving the impact.

06.01.2017 - Natural Sciences Sector

International scientific collaboration has become a must, says report

© Roberto Barnaba/ICTP, Physics students from Iran, Senegal, Spain, Venezuela and Viet Nam working together at UNESCO's Abdus Salam International Centre for Theoretical Physics in Italy.

One in four scientific articles produced around the world were cosigned by a foreign collaborator in 2014, compared to one in five a decade earlier, notes the UNESCO Science Report: towards 2030, released in November 2015.

Internationalization of Research

- In a globalized world, internationalization is key for universities to successfully carry out their mission

- Hence for research intensive universities, internationalization of research is essential

Iran

CISSC
Center for International Scientific Studies and Collaboration
Ministry of Science, Research and Technology
The Islamic Republic of Iran

Internationalization of Research

WHY ?

- Global issues require global solutions:
  - World economy
  - Climate change
  - Epidemics
  - Poverty
  - Security and peace, etc.
- Regional input on these issues required as well as piecing collaboratively local elements of global questions

Internationalization of Research

WHY ?

- Knowledge knows no boundary : Teaming up the best researchers worldwide towards biggest impact

- Share expensive platforms

Internationalization of Research

WHY ?

- Enrich approach from diversity
- North/South partnerships
- « Knowledge Diplomacy »
  - International mobility of researchers
  - Fostering international entrepreneurship and ventures
- Insert research students in international networks

Internationalization of Research

Rapid growth:

- OECD: since 1985, co-authored scientific articles have tripled
- 25% of articles are international
- In Canada, 40% are international
- In Canada, publications with emerging countries have doubled
- Accelerated internationalization of industrial R&D

Internationalization of Research

New players on the global scientific scene

	Rank in 1995	Rank in 2005
•USA	1	1
•Japan	2	2
•United Kingdom	3	3
•Germany	4	4
•China	**14**	**5**
•France	5	6
•Canada	6	7
•Australia	9	11
•South Korea	**22**	**10**
•India	**12**	**12**

Production of articles in science and engineering
Source : NSF – Science and Engineering Indicators

Fostering Internationalization of Research

International Forum of Public Universities

- Member universities:

ARGENTINA: Universidad de Buenos Aires
BELGIUM: Brussels Free University
BRAZIL: Universidade de São Paulo
CANADA: Université de Montréal
CHILE: Universidad de Chile
CHINA: Peking University
CHINA: Nankai University
CZECH REPUBLIC: Univerzita Karlova v Praze
FRANCE: Université Sorbonne Nouvelle – Paris III
GERMANY: Albert-Ludwigs-Universität Freiburg

INDIA: Jawaharlal Nehru University
ITALY: Università di Bologna
JAPAN: Nagoya University
MEXICO: Universidad Nacional Autónoma de México
MOROCCO: Université Mohammed V – Agdal
ROMANIA: Universitatea din Bucuresti
RUSSIA: Lomonosov State Moscow University
SENEGAL: Université Cheikh Anta Diop
SPAIN: Universitat de Barcelona
SWITZERLAND: Université de Genève
UNITED STATES: University of California

ASSOCIATED MEMBERS :
BURKINA FASO: Université de Ouagadougou
HAITI: Université d'État d'Haïti

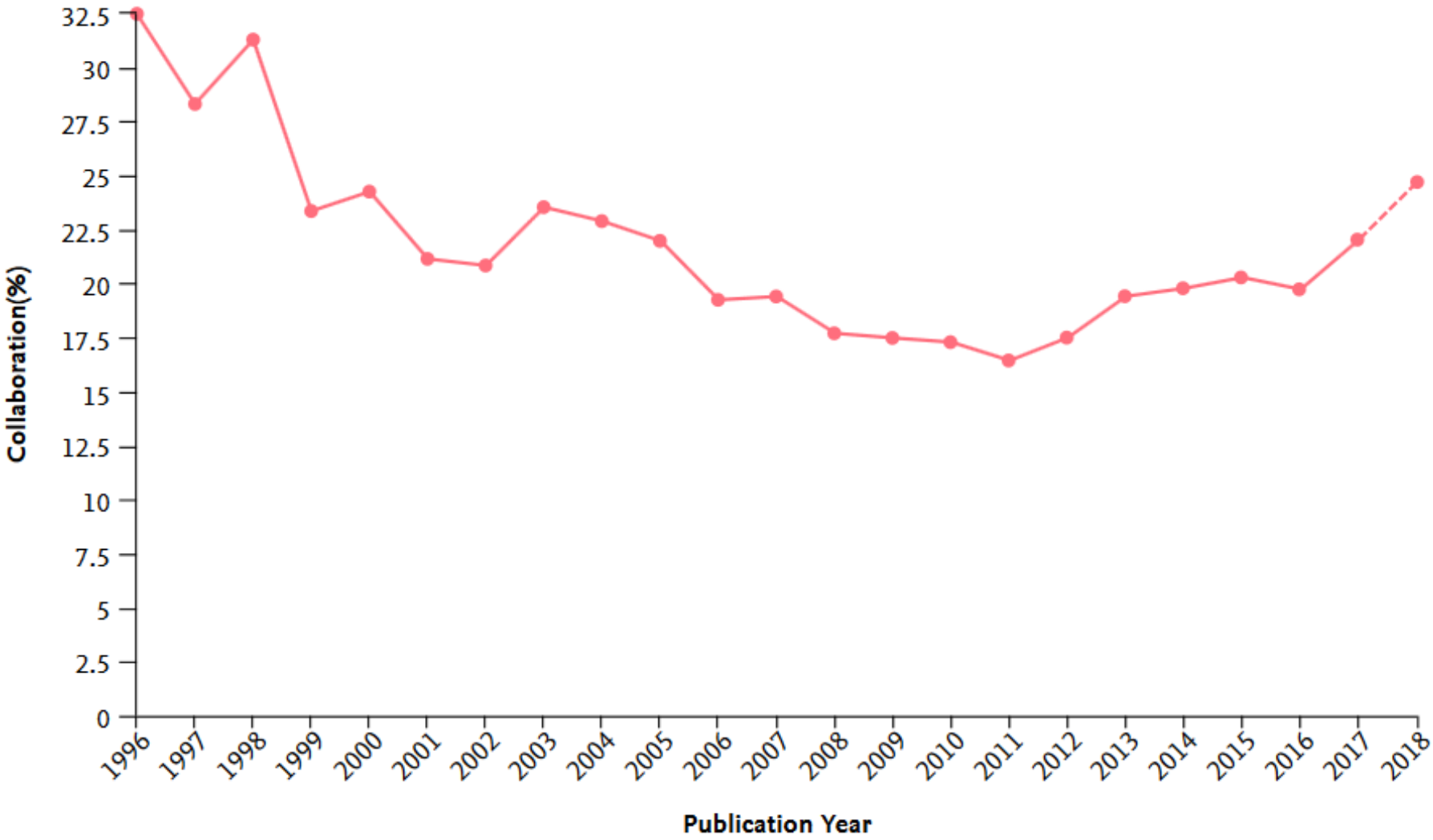
Conclusion

Concrete steps to develop our international links:

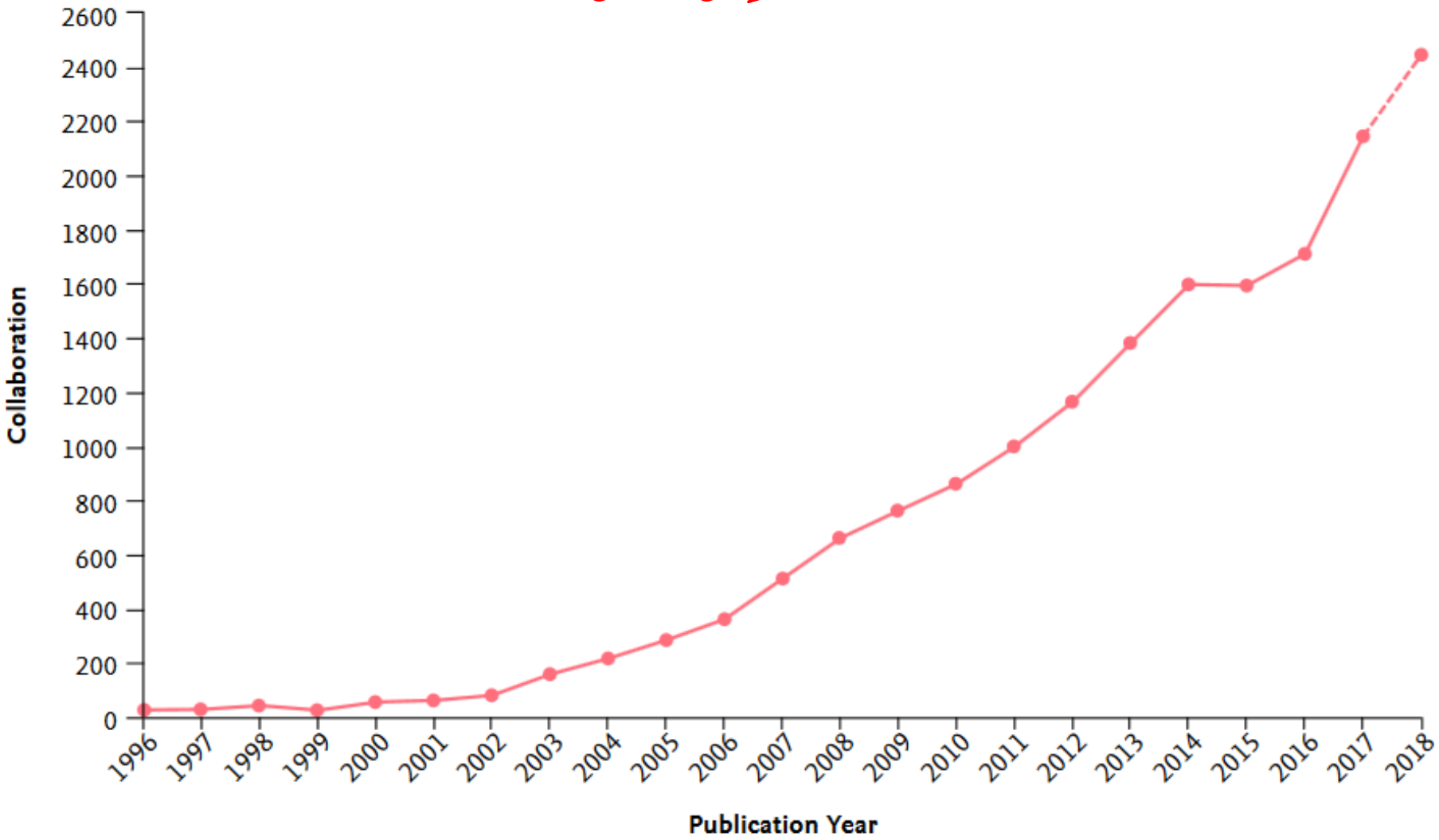
- Identify mutual research priorities, ex. presence of research institutes in similar areas
- Initiate collaboration (see models)
- Involve graduate students as vectors of collaboration
- Use the available funding and advocate for more

اهمیت همکاری
بین المللی ایران در انتشار مقالات علمی

روند رشد درصد همکاری‌های بین المللی در مقالات منتشرشده ایران در کل علوم

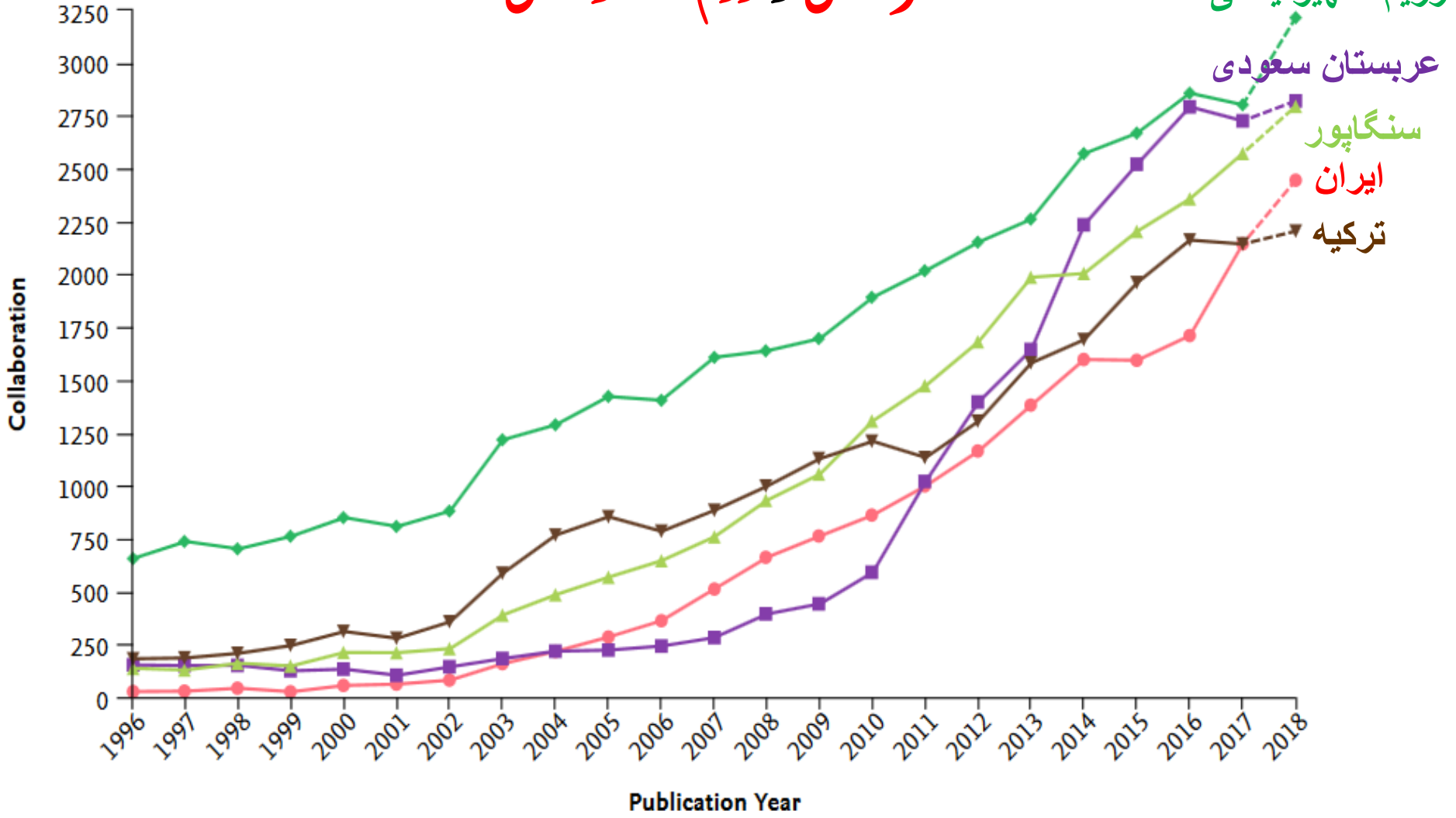


روند رشد تعداد مقالات همکاری بین المللی ایران در پزشکی بالینی

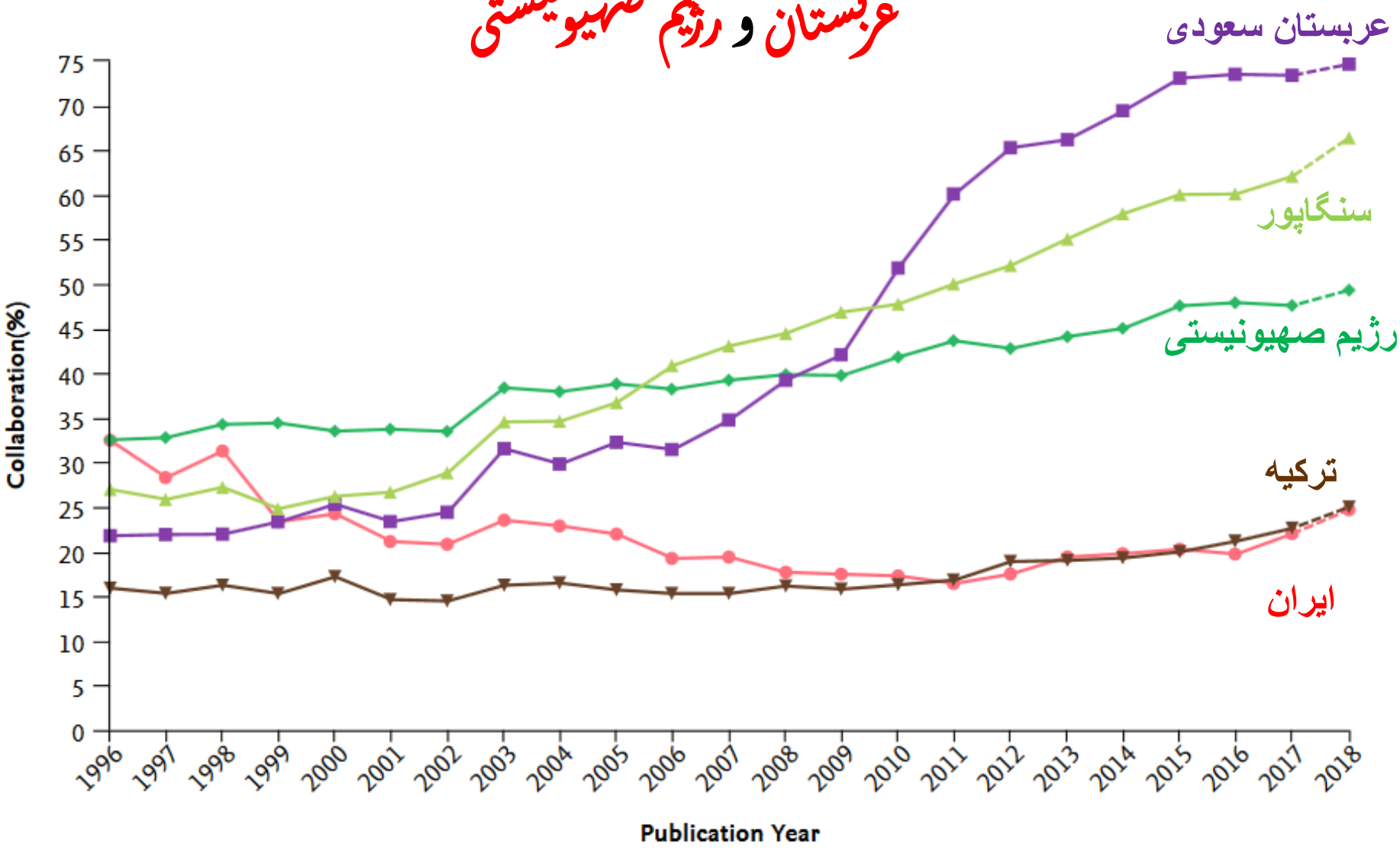


روند رشد درصد همکاری‌های بین المللی در مقالات پزشکی بالینی ایران

مقایسه تعداد مقالات منتج از همکاری بین المللی کشورهای ایران، ترکیه، سنگاپور، عربستان و رژیم صهیونیستی



مقایسه درصد مقالات منتج از همکاری بین المللی کشورهای ایران، ترکیه، سنگاپور، عربستان و رژیم صهیونیستی



مقایسه کیفیت استنادی مقالات منتشرشده دانشگاه علوم پزشکی تهران در بانک اطلاعاتی Scopus براساس نوع همکاری داخلی و بین المللی در انتشار مقالات

Metric		Publications	Citations	Citations per Publication	Field-Weighted Citation Impact
International collaboration	18.1%	3,372	46,815	13.9	2.87
Only national collaboration	58.0%	10,811	42,367	3.9	0.76
Only institutional collaboration	22.1%	4,116	14,538	3.5	0.60
Single authorship (no collaboration)	1.9%	358	778	2.2	0.62

مقایسه تعداد و درصد مقالات همکاری بین المللی و شاخص FWCI برخی از دانشگاه‌های منتخب و برتر در بانک اطلاعاتی Scopus

University Name	Collaboration (%)	Collaboration (Count)	Field-Weighted Citation Impact
Stanford University	42.3	11790	2.4
Harvard University	45.7	27993	2.16
University of Oxford	60.8	17238	2.07
Medical University of Vienna	63.8	4202	1.92
Utrecht University	57.1	9161	1.91
National University of Singapore	63.1	12339	1.65
Tehran University of Medical Sciences	21.1	2104	1.24

کشورهای دارای بیشترین مقاله مشترک با ایران در کل علوم در بانک اطلاعاتی Scopus

Countries & regions	Co-authored publications	Co-authors in Iran	Co-authors in the other country or region	Citation Co...
United States	15,346 ▲	20,851 ▲	20,828 ▲	167,465
Canada	6,884 ▲	10,201 ▲	5,622 ▲	77,392
United Kingdom	5,944 ▲	8,282 ▲	6,628 ▲	93,590
Malaysia	5,817 ▲	5,516 ▼	5,324 ▼	76,852
Germany	5,264 ▲	6,925 ▲	7,366 ▲	82,306
Australia	5,138 ▲	7,521 ▲	4,392 ▲	73,454
Italy	4,777 ▲	5,848 ▲	6,810 ▲	81,242
Turkey	3,532 ▲	3,705 ▲	2,613 ▲	61,948
China	3,493 ▲	3,534 ▲	4,299 ▲	74,276
France	3,287 ▲	4,067 ▲	4,330 ▲	65,575

کشورهای دارای بیشترین مقاله مشترک با ایران در پزشکی بالینی در بانک اطلاعاتی Scopus

Countries & regions	Co-authored publications	Co-authors in Iran	Co-authors in the other country or region	Citation Co...
United States	4,064 ▲	7,864 ▲	6,377 ▲	52,048
United Kingdom	1,652 ▲	3,306 ▲	2,357 ▲	39,725
Canada	1,393 ▲	3,246 ▲	1,734 ▲	30,407
Australia	1,082 ▲	2,258 ▲	1,402 ▲	33,282
Germany	896 ▲	1,971 ▲	1,790 ▲	30,566
Italy	782 ▲	1,478 ▲	1,776 ▲	30,248
Netherlands	740 ▲	1,421 ▲	1,252 ▲	25,148
Sweden	693 ▲	1,600 ▲	750 ▲	29,934
Malaysia	605 ▲	1,075 ▲	921 ▼	23,211
France	552 ▲	1,154 ▲	1,162 ▲	24,934

تاثیر همکاری بین المللی در نگارش مقالات بر کیفیت استنادی آن‌ها در نظام‌های رتبه بندی بین المللی

- از 117مقاله پُراستناد کشور در رشته پزشکی بالینی در نظام رتبه بندی دانشگاهی ESI، تعداد 95 مقاله، یعنی 81% آن‌ها با همکاری نویسندگانی از خارج از کشور منتشرشده است.

- از 145 مقاله پُراستناد دانشگاه علوم پزشکی تهران در مجموعه فوق، تعداد 111 مقاله یعنی 77% آن‌ها با همکاری نویسندگانی از خارج از کشور منتشرشده است.

مقاله پُراستناد کشور در موضوع پزشکی بالینی در نظام رتبه‌بندی ESI، حاصل همکاری بین المللی

1 **A COMPARATIVE RISK ASSESSMENT OF BURDEN OF DISEASE AND INJURY ATTRIBUTABLE TO 67 RISK FACTORS AND RISK FACTOR CLUSTERS IN 21 REGIONS, 1990-2010: A SYSTEMATIC ANALYSIS FOR THE GLOBAL BURDEN OF DISEASE STUDY 2010**

Times Cited: 4,196

By: LIM, SS; VOS, T; FLAXMAN, AD; et.al

Countries: AUSTRALIA; USA; TAIWAN; expand

Institutions: ACADEMIA SINICA - TAIWAN; YESHIVA UNIVERSITY; YALE UNIVERSITY; expand

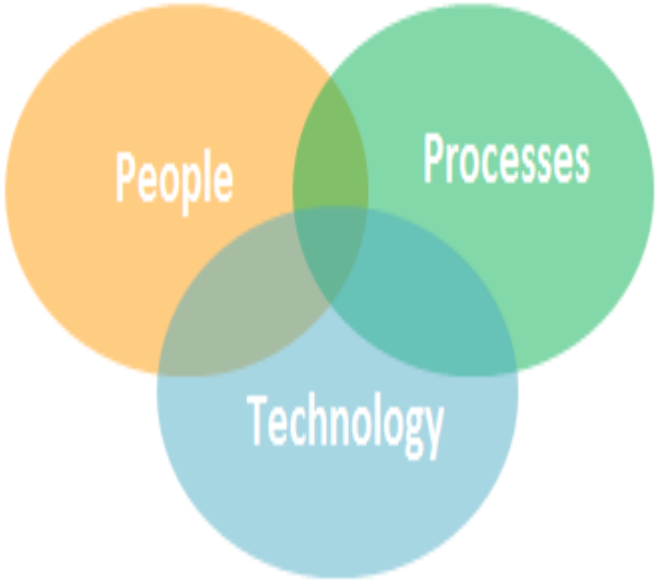
Source: LANCET 380 (9859): 2224-2260 DEC 15 2012

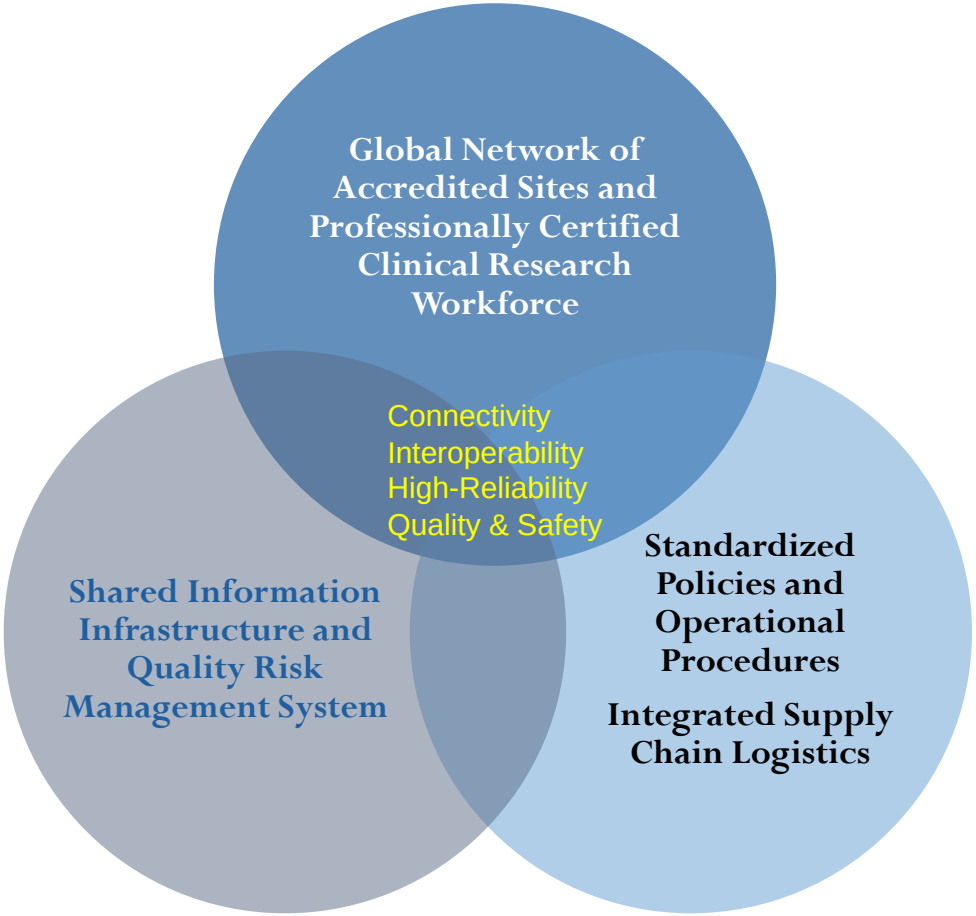
Research Fields: CLINICAL MEDICINE

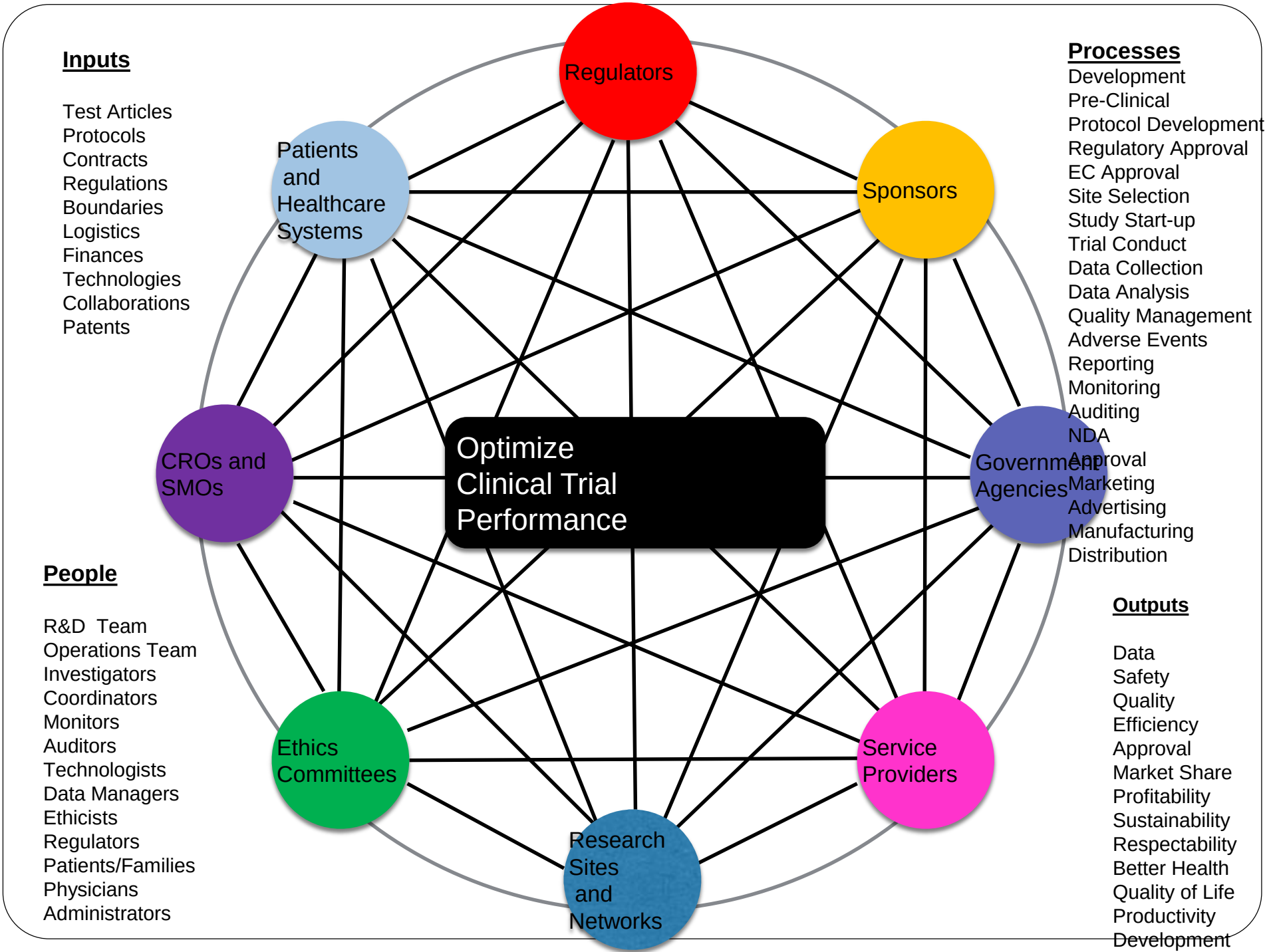
شناسایی و دعوت از دانشمندان ایرانی مقیم خارج برای توسعه تحقیقات پزشکی در ایران

- شناسایی ۱۵۰ نفر از دانشمندان برجسته ایرانی در دانشگاه‌های برتر جهان
- دعوت از آنها برای همکاری با مراکز تحقیقاتی مربوطه در دانشگاه‌های ایران و تشکیل تیم‌های مشترک پژوهش
- جلب همکاری آنها در انجام داوری طرح‌های تحقیقاتی برای مؤسسه ملی توسعه تحقیقات پزشکی (NIMAD) و همچنین داوری مقالات مجلات ایرانی علوم پزشکی
- جلب همکاری برای تربیت و آموزش محققان جوان ایرانی در مؤسسه محل خدمت آنها در خارج از کشور

Fundamental Elements of an Enterprise System for Clinical Research



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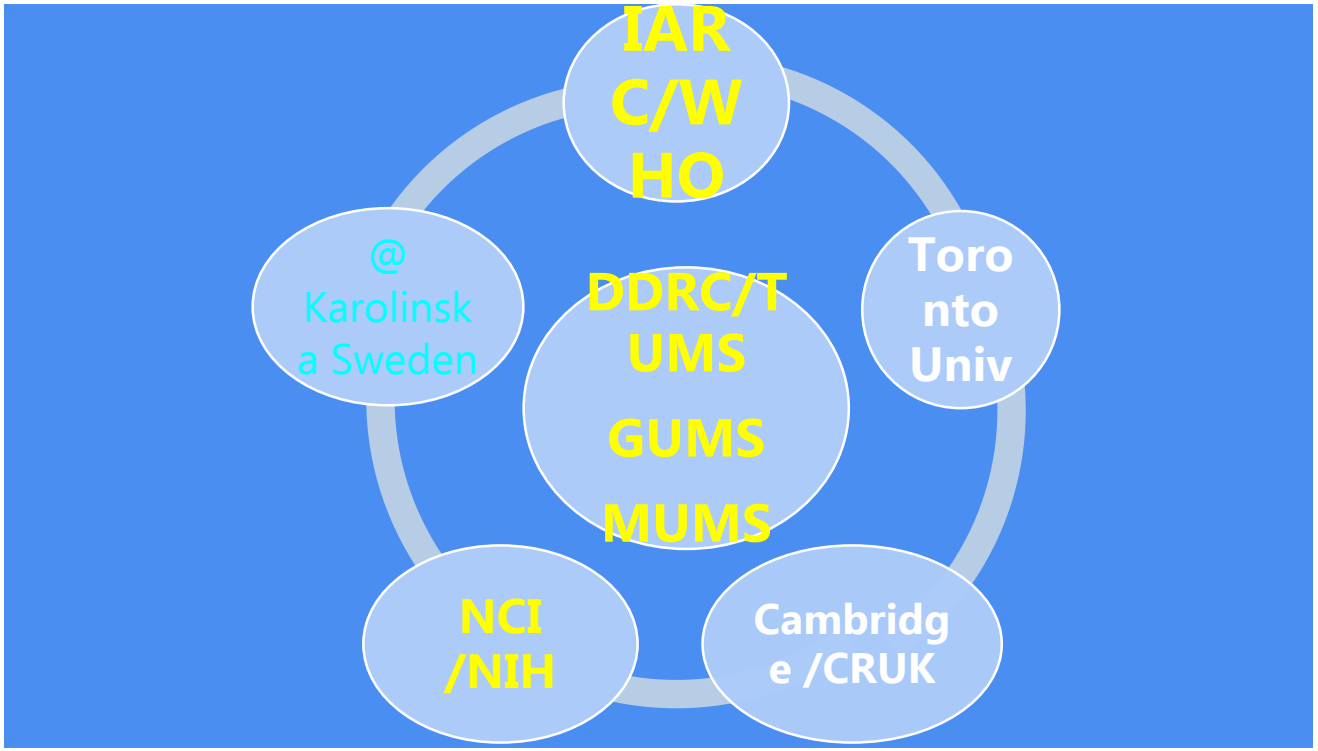
تجربه های موفق همکاری بین المللی در ایران

DDRI Experience In ESCC and Golestan

Gastro esophageal Malignancy In Northern Iran “GEMINI” 2000-2019



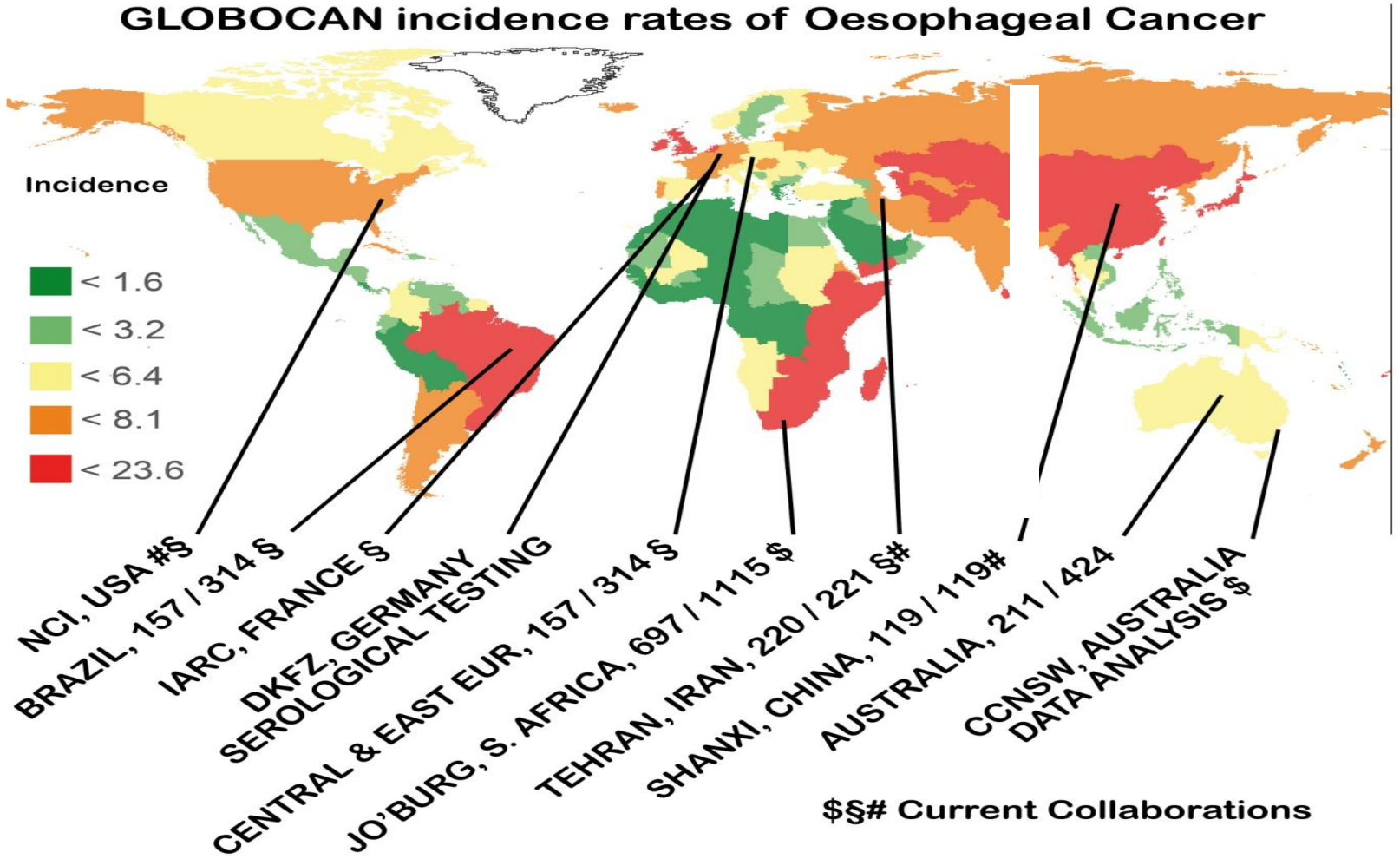
First GEMINI (Gastro esophageal Malignancies in Northern Iran Meeting) 2000,IARC,Lyon ,France

InterSCOPE

International Collaboration on HPV and squamous cell cancer of the Oesophagus

Interscpoe

N=4068, 44 years of cumulative data collection



GCS HPV and ESCC
JNCI

DOI: 10.1093/jnci/djr499

JNCI Journal of the National Cancer Institute Advance Access published January 6, 2012

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ARTICLE

InterSCOPE Study: Associations Between Esophageal Squamous Cell Carcinoma and Human Papillomavirus Serological Markers

Freddy Sitas, Sam Egger, Margaret I. Urban, Philip R. Taylor, Christian C. Abnet, Paolo Boffetta, Dianne L. O'Connell, David C. Whiteman, Paul Brennan, Reza Malekzadeh, Michael Pawlita, Sanford M. Dawsey, Tim Waterboer, on behalf of the InterSCOPE Collaboration. Collaborators: Penelope M. Webb, Adèle C. Green, Nicholas K. Hayward, David Zaridze, Ivana Holcatova, Dana Mates, Neonila Szeszenia-Dabrowska, Gilles Ferro, Vladimir Janout, Maria Paula Curado, Ana Maria Menezes, Sergio Koifman, Farhad Islami, Dariush Nasrollahzadeh, Nan Hu, Alisa M. Goldstein, Ying Gao, Ti Ding, Farin Kamangar

Manuscript received March 3, 2011; revised October 18, 2011; accepted November 4, 2011.

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Validating Cohort study Questioner

Short Communication

Reliability and Validity of Opiate Use Self-Report in a Population at High Risk for Esophageal Cancer in Golestan, Iran

Christian C. Abnet,[1] Mitra Saadatian-Elahi,[2,3] Akram Pourshams,[4] Paolo Boffetta,[2] Ali Feizzadeh,[4] Paul Brennan,[2] Philip R. Taylor,[1] Farin Kamangar,[1] Sanford M. Dawsey,[1] and Reza Malekzadeh[4]

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Abstract

Objective: To assess the reliability and validity of self-reported opium use in a rural Iranian population at high risk for esophageal cancer in preparation for a large cohort study. Method: 1,057 subjects ages 33 to 84 years were recruited from Gonbad city and three surrounding villages in Golestan province of Iran and completed a questionnaire and provided biological samples. The history and duration of using opium, smoking tobacco, chewing nass, and drinking alcohol were measured by questionnaire in the entire cohort. A subgroup of 130 people was reinterviewed after 2 months to assess reliability. Validity of the opium

in the urine of 150 selected subjects. I
reported opiate use is reliable and valid
ulation. The reliability of ever opium use
of opium use had κ's of 0.96 and 0.74,
The validity of self-reported opium use w
Using urine codeine or morphine as th
dard for use of opium, self-report had a sensitivity of 0.93 and a specificity of 0.89. Conclusions: The self-reported use of opium can provide a reliable and valid measurement in this population and will be useful for studying associations between opium use and occurrence of esophageal cancer and other

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Verbal Autopsy: Reliability and Validity Estimates for Causes of Death in the Golestan Cohort Study in Iran

Hooman Khademi[1], Arash Etemadi[1,2], Farin Kamangar[1,3,4], Mehdi Nouraie[1,
Abaie[1], Akram Pourshams[1], Mohammad Bagheri[1], Afshin Hooshyar[1], Farha
Abnet[3], Paul Pharoah[7], Paul Brennan[6], Paolo Boffetta[8,9], Sanford M. Dawse

1 Digestive Disease Research Center, Shariati Hospital, Tehran University of Medical Sciences Tehran, Iran, 2 Department of Ep
Health, Tehran University of Medical Sciences, Tehran, Iran, 3 Division of Cancer Epidemiology and Genetics, National Ca
Bethesda, Maryland, United States of America, 4 Department of Public Health Analysis, School of Community Health and
Maryland, United States of America, 5 Department of Internal Medicine and Center for Sickle Cell Disease, Howard Universi
States of America, 6 International Agency for Research on Cancer, Lyon, France, 7 Department of Oncology and Departmen
of Cambridge, Cambridge, United Kingdom, 8 The Tisch Cancer Institute, Mount Sinai School of Medicine, New York, New Yo
Prevention Research Institute, Lyon, France

Abstract

Background: Verbal autopsy (VA) is one method to obtain valid estimates of causes of death i
records. We tested the reliability and validity of a VA questionnaire developed for a cohort
northeastern Iran.

Method: A modified version of the WHO adult verbal autopsy was used to assess the cause of
Cohort Study (GCS) subjects who died. The GCS cause of death was determined by two
reviewed all available medical records. Two other internists ("reviewers") independently revie
classified the cause of death into one of nine general categories; they repeated this eva
reliability of the VA was measured by calculating intra-reviewer and inter-reviewer kappa s
was measured using the GCS cause of death as the gold standard.

Results: VA showed both good validity (sensitivity, specificity, PPV, and NPV all above 0.81)
determining the general cause of death independent of sex and place of residence. The overa
four reviews was 0.84 (95%CI: 0.78–0.89). The results for identifying specific cancer deaths
for upper GI cancers (kappa = 0.95). The multi-rater agreement in cancer subgroup was 0.9

Conclusions: VA seems to have good reliability and validity for determining the cause of dea
up study in a predominantly rural area of a middle-income country.

European Journal of Clinical Nutrition (2006) 0, 000–000
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0954-3007/06 $30.00
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ORIGINAL ARTICLE

Validity and reliability of a new food frequency questionnaire compared to 24 h recalls and biochemical measurements: pilot phase of Golestan cohort study of esophageal cancer

AF Malekshah[1,4], M Kimiagar[1,4], M Saadatian-Elahi[2,3], A Pourshams[1], M Nouraie[1], G Goglani[1], A Hoshiarrad[4], M Sadat Safavi[1], B Golestan[4], A Yoonesi[1], N Rakhshani[1], S Fahimi[1,2], D Nasrollahzadeh[1], R Salahi[5], A Ghafarpour[4], S Semnani[5], JP Steghens[3], CC Abnet[6], F Kamangar[6], SM Dawsey[6], P Brennan[2], P Boffetta[2] and R Malekzadeh[1]

[1]*Digestive Disease Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran;* [2]*International Agency for Research on Cancer, Lyon, France;* [3]*Edouard Herriot Hospital and EA 3090, Lyon, France;* [4]*National Nutrition and Food Science Research Institute of Shaheed Beheshti University of Medical Science, Iran;* [5]*Golestan University of Medical Sciences, Gorgan, Iran and* [6]*Nutritional Epidemiology Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD, USA*

Background: A pilot study was carried out to evaluate validity and reproducibility of a food frequency questionnaire (FFQ), which was designed to be used in a prospective cohort study in a population at high risk for esophageal cancer in northern Iran.
Methods: The FFQ was administered four times to 131 subjects, aged 35–65 years, of both sexes. Twelve 24-h dietary recalls for two consecutive days were administered monthly during 1 year and used as a reference method. The excretion of nitrogen was measured on four 24-h urine samples, and plasma levels of β-carotene, retinol, vitamin C and α-tocopherol was measured from two time points. Relative validity of FFQ and 24-h diet recall was assessed by comparing nutrient intake derived from both methods with the urinary nitrogen and plasma levels of β-carotene, retinol, vitamin C and α-tocopherol.
Results: Correlation coefficients comparing energy and nutrients intake based on the mean of the four FFQ and the mean of twelve 24-h diet recalls were 0.75 for total energy, 0.75 for carbohydrates, 0.76 for proteins and 0.65 for fat. Correlation coefficients between the FFQ-based intake and serum levels of β-carotene, retinol, vitamin C and vitamin E/α-tocopherol were 0.37, 0.32, 0.35 and 0.06, respectively. Correlation coefficients between urinary nitrogen and FFQ-based protein intake ranged from 0.23 to 0.35. Intraclass correlation coefficients used to measure reproducibility of FFQ ranged from 0.66 to 0.89.
Conclusion: We found that the FFQ provides valid and reliable measurements of habitual intake for energy and most of the nutrients studied.

Golestan Cohort Study in: Circulation with an editorial New Evidence from Iran

Epidemiology and Prevention

Household Fuel Use and Cardiovascular Disease Mortality
Golestan Cohort Study

Sumeet S. Mitter, MD; Rajesh Vedanthan, MD, MPH; Farhad Islami, MD, PhD; Akram Pourshams, MD; Hooman Khademi, MD, MPH; Farin Kamangar, MD, PhD; Christian C. Abnet, PhD; Sanford M. Dawsey, MD; Paul D. Pharoah, PhD; Paul Brennan, PhD; Valentin Fuster, MD, PhD; Paolo Boffetta, MD; Reza Malekzadeh, MD

Background—Household air pollution is the third largest risk factor for global disease burden, but direct links with cardiovascular disease mortality are limited. This study aimed to evaluate the relationship between household fuel use and cardiovascular disease mortality.

Methods and Results—The Golestan Cohort Study in northeastern Iran enrolled 50 045 individuals 40 to 75 years of age between 2004 and 2008 and collected data on lifetime household fuel use and other baseline exposures. Participants were followed up through 2012 with a 99% successful follow-up rate. Cox proportional hazards models were fitted to calculate

Editorial

Indoor Air Pollution and Cardiovascular Disease
New Evidence From Iran

Jonathan M. Samet, MD, MS; Hossein Bahrami, MD, PhD, MPH; Kiros Berhane, PhD

Serious attention was first focused on indoor air pollution as a public health problem in the 1960s, when some of the first measurements of indoor pollutant concentrations, including nitrogen dioxide, carbon monoxide, and particles, were made.[1] Studies combining the tracking of activity patterns with monitoring of indoor and outdoor concentrations for key air pollutants soon led to an appreciation of the dominant contributions of indoor exposures to total personal exposures (ie, the total exposure experienced by an individual across cardiovascular disease,[8] although there is mounting evidence related to both.

In this issue of *Circulation*, Mitter and colleagues[9] provide new evidence on household fuel use, a surrogate for indoor air pollution, and cardiovascular mortality from the Golestan Cohort Study in Iran. The study population includes >50 000 adults, primarily from rural locations, who were enrolled in 2004 to 2008 and followed up through 2012 for this report. Baseline data collected by an administered questionnaire cov-

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Am J Gastroenterol. Author manuscript; available in PMC 2018 January 03.

Published in final edited form as:

Am J Gastroenterol. 2013 November ; 108(11): 1757–1765. doi:10.1038/ajg.2013.336.

Opium Use and Risk of Mortality from Digestive Diseases -- A Prospective Cohort Study

Masoud M. Malekzadeh[1,#], **Hooman Khademi**[1,2,#], **Akram Pourshams**[1], **Arash Etemadi**[1,3], **Hossein Poustchi**[1], **Mohammad Bagheri**[1], **Masoud Khoshnia**[4], **Amir Ali Sohrabpour**[1], **Ali Aliasgari**[1], **Elham Jafari**[1], **Farhad Islami**[1,5], **Shahryar Semnani**[4], **Christian C. Abnet**[3], **Paul DP. Pharoah**[6], **Paul Brennan**[2], **Paolo Boffetta**[6,7], **Sanford M. Dawsey**[3], **Reza Malekzadeh**[1], and **Farin Kamangar**[1,3,8,*]

[1]Digestive Disease Research Center, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

[2]International Agency for Research on Cancer, Lyon, France

[3]Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD, USA

[4]Golestan Research Center of Gastroenterology and Hepatology (GRCGH), Golestan University of Medical Sciences. Gorgan, Iran

JNCI,BMJ

DOI: 10.1093/jnci/djr545 JNCI Journal of the National Cancer Institute Advance Access published January 6, 2012
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ARTICLE

InterSCOPE Study: Associations Between Esophageal Squamous Cell Carcinoma and Human Papil[illegible] Serological Markers

Freddy Sitas, Sam Egger, Margaret I. Urban, Philip R. Taylor, Christian C. Abnet, Paolo Boffetta
Paul Brennan, Reza Malekzadeh, Michael Pawlita, Sanford M. Dawsey, Tim Waterboer, or
Collaborators: Penelope M. Webb, Adèle C. Green, Nicholas K. Hayward, David Zaridze
Szeszenia-Dabrowska, Gilles Ferro, Vladimir Janout, Maria Paula Curado, Ana Maria M
Dariush Nasrollahzadeh, Nan Hu, Alisa M. Goldstein, Ying Gao, Ti Ding, Farin Kamangar

Manuscript received March 3, 2011; revised October 18, 2011; accepted November 4, 2(

Correspondence to: Freddy Sitas, DPhil, Cancer Epidemiology Research Unit, Cancer Council NSW, PO Bo
freddys@nswcc.org.au).

Background The role of human papillomavirus (HPV) in the causation of esophage
We examined the associations between esophageal squamous cell car
serological markers in serum from six existing case–control studies condu
risks of esophageal cancer.

Methods We used centralized multiplex serology to test serum samples from 156
from six case–control studies for antibodies to the major HPV capsid p
and/or E7 of eight high-risk, two low-risk, and four cutaneous HPV typ
corresponding 95% confidence intervals (CIs) were estimated usin
adjustment for smoking, alcohol consumption, and other potential co
confidence intervals were calculated using either a linear mixed-ef
approach. All statistical tests were two-sided.

Results We found statistically significant associations between esophageal squ
E6 for HPV16 (OR = 1.89, 95% CI = 1.09 to 3.29, *P* = .023) and HPV6 (OR
but not for other tested HPV types. There were no statistically signif
squamous cell carcinoma and antibodies to E7 for any of the tested HP
HPV16 E6 and E7 was rare (four case subjects, two control subjects; OR =
also found statistically significant associations between esophageal sq
bodies for the high-risk mucosal type HPV33 L1 (OR = 1.30, 95% CI = 1.00 t
types HPV6 (OR = 1.22, 95% CI = 1.05 to 1.42; *P* = .010) and HPV11 (OR =

Conclusions We found limited serological evidence of an association between esophag

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Tea drinking habits and oesophageal cancer a high risk area in northern Iran: population based case-control study

Farhad Islami, Akram Pourshams, Dariush Nasrollahzadeh, Farin Kama
Saman Fahimi, Ramin Shakeri, Behnoush Abedi-Ardekani, Shahin Mera
Homayoon Vahedi, Shahryar Semnani, Christian C Abnet, Paul Brennar
Henrik Møller, Farrokh Saidi, Sanford M Dawsey, Reza Malekzadeh and
Paolo Boffetta

BMJ 2009;338;b929
doi:10.1136/bmj.b929

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Circulation

Epidemiology and Prevention

Household Fuel Use and Cardiovascular Disease Mortality
Golestan Cohort Study

Sumeet S. Mitter, MD; Rajesh Vedanthan, M
Akram Pourshams, MD; Hooman Khademi, M
Christian C. Abnet, PhD; Sanford M. Da
Paul Brennan, PhD; Valentin Fuster, MD, PhD; P

Background—Household air pollution is the third largest risk
cardiovascular disease mortality are limited. This study aimed
and cardiovascular disease mortality.
Methods and Results—The Golestan Cohort Study in northeaste
between 2004 and 2008 and collected data on lifetime househo
followed up through 2012 with a 99% successful follow-up rate
hazard ratios for associations between pehen (local dung), w
and heating and all-cause and cause-specific mortality, with ad
potential confounders. A total of 3073 participants (6%) died
to noncommunicable diseases, including cardiovascular, oncol
ratios from kerosene/diesel burning were 1.06 (95% confidenc
1.06–1.17) for all-cause and cardiovascular mortality, respe
increase in ischemic heart disease (10-year hazard ratio, 1.14
cerebrovascular accident (10-year hazard ratio, 1.08; 95% conf
revealed a potential signal for increased risk for all-cause and
with men, with similar risk for ischemic heart disease mortalit
Conclusions—Household exposure to high-pollution fuels
cardiovascular disease mortality. Replicating these results wo
(*Circulation*. 2016;133:2360-2369. DOI: 10.1161/CIRCULA

Key Words: air pollution ■ epidemiology ■

Editorial

Indoor Air Pollution and Cardiovascular Disease
New Evidence From Iran

Jonathan M. Samet, MD, MS; Hossein Bahrami, MD, PhD, MPH; Kiros Berhane, PhD

Serious attention was first focused on indoor air pollution as a public health problem in the 1960s, when some of the first measurements of indoor pollutant concentrations, including nitrogen dioxide, carbon monoxide, and particles, were made.[1] Studies combining the tracking of activity patterns with monitoring of indoor and outdoor concentrations for key air pollutants soon led to an appreciation of the dominant contributions of indoor exposures to total personal exposures (ie, the total exposure experienced by an individual across the multiple environments where time is spent).[2] A wave of epidemiological studies was also launched, directed at secondhand tobacco smoke, nitrogen dioxide from natural gas–fueled stoves and heaters, and other pollutants with indoor sources. These studies focused on the pollution sources present in higher-income countries, particularly in North America and Europe, and their adverse effects on health, particularly the respiratory health of children and adults. Collectively, the resulting evidence has given us an understanding of the critical role of indoor environments in driving exposures to inhaled pollutants and provided sufficient evidence to causally link secondhand tobacco smoke exposure to increased disease risk, including coronary heart disease and stroke, and other adverse effects in infants, children, and adults.[3]

Article, see p 2360

cardiovascular disease,[8] although there is mounting e
related to both.

In this issue of *Circulation*, Mitter and colleagues[9]
new evidence on household fuel use, a surrogate for
air pollution, and cardiovascular mortality from the G
Cohort Study in Iran. The study population includes
adults, primarily from rural locations, who were enr
2004 to 2008 and followed up through 2012 for this
Baseline data collected by an administered questionna
ered cardiovascular risk factors and included a lifetime
of the types of fuels used in the home for cooking an
ing. Follow-up for mortality was quite complete, and c
death was assigned on the basis of a review of medica
mation by a physician panel. The investigators atten
obtain a lifetime history of fuel use at home for cook
heating separately. A temporal profile of use was obtain
fuel types: natural gas, kerosene/diesel, wood, and peh
dung). With the resulting data, cumulative exposures c
calculated for each fuel type so that the analyses atten
disentangle associations of the 4 fuel types with risk
diovascular mortality and other outcomes. Exposure
pehen was limited, reported by only 12% of responden
had exposure to emissions from combustion of kerose
sel, gas, and wood. Because measurements of pollutan

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Polycyclic aromatic hydrocarbon exposure in oesophageal tissue and risk of oesophageal squamous cell carcinoma in north-eastern Iran

Behnoush Abedi-Ardekani, Farin Kamangar, Stephen M Hewitt, et al.

Gut 2010 59: 1178-1183 originally published online June 28, 2010
doi: 10.1136/gut.2010.210609

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Review

Opium use: an emerging risk factor for cancer?

Farin Kamangar, Ramin Shakeri, Reza Malekzadeh, Farhad Islami

An estimated 16·5 million people worldwide illicitly use opiates, of whom 4 million use raw opium. We did a systematic review to investigate the association between opium use and cancer incidence and mortality. Opium use was associated with an increased risk of cancers of the oesophagus, stomach, larynx, lung, and urinary bladder. Although the present evidence suggests that these associations are possibly causal, further epidemiological studies (particularly prospective studies that collect detailed data about lifetime opium use and control for a broad range of potential confounders) are needed.

Lancet Oncol 2014; 15: e69–77

Department of Public Health Analysis, School of Community Health and Policy, Morgan State University, Baltimore, MD, USA (Prof F Kamangar MD); **Digestive Oncology Research Center, Digestive Disease Research Institute, Tehran University of Medical Sciences, Tehran, Iran** (Prof F Kamangar, R Shakeri MD, Prof R Malekzadeh MD, F Islami MD); **and Institute for Transitional Epidemiology, Mount Sinai School of Medicine, New York, NY, USA** (F Islami)

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Introduction

Opium, the air-dried extract of the opium poppy *Papaver somniferum*, has been used for recreational or medical purposes since at least 5000 BC.[1] Criminalisation of opium use, and availability of other psychoactive drugs such as cannabis, has resulted in fairly low rates of opium use in the developed world. However, the drug is still widely used in many parts of the world, particularly in west and central Asia. According to the UN Office of Drugs and Crime, an estimated 16·5 million people across the world used opiates illicitly in 2012,[2] of whom 4 million used raw opium.[3]

Some of the more acute health effects of opium use—including its analgesic, hypnotic, antitussive, and antidiarrhoeal effects—have been known to physicians and the general public for a long time.[4,5] A popular, yet unsubstantiated, belief among lay people, and even among some of the older generation of physicians in

Search strategy and selection criteria

We searched PubMed, Web of Science, and Scopus to identify publications about opium use and cancer risk. The exposure of interest was opium use as an illicit drug. We did not search for or include studies about the effects of therapeutic or illicit use of synthetic opioids (eg, morphine, oxycodone, and fentanyl). We searched PubMed with the terms "opium" AND ("neoplasms" [MeSH term] OR "cancer" OR "carcinoma" OR "malignancy" OR "malignant"). Equivalent terms were used to search the Web of Science and Scopus databases. The Scopus search was limited to medicine (for subject area) and article (for document type). All searches were updated on Nov 5, 2013. No relevant non-English-language articles were identified by our search. We identified a total of 620 articles from PubMed (n=125), Web of Science (n=94), and Scopus (n=401). When articles were indexed in more than one database, only

NEJM 4

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

A Form of the Metabolic Syndrome Associated with Mutations in *DYRK1B*

Ali R. Keramati, M.D., Mohsen Fathzadeh, Ph.D., Gwang-Woong Go, Ph.D., Rajvir Singh, Ph.D., Murim Choi, Ph.D., Saeed Faramarzi, M.D., Shrikant Mane, Ph.D., Mohammad Kasaei, M.D., Kazem Sarajzadeh-Fard, M.D., John Hwa, M.D., Ph.D., Kenneth K. Kidd, Ph.D., Mohammad A. Babaee Bigi, M.D., Reza Malekzadeh, M.D., Adallat Hosseinian, M.D., Masoud Babaei, M.D., Richard P. Lifton, M.D., Ph.D., and Arya Mani, M.D.

ABSTRACT

BACKGROUND

Genetic analysis has been successful in identifying causative mutations for individual cardiovascular risk factors. Success has been more limited in mapping susceptibility genes for clusters of cardiovascular risk traits, such as those in the metabolic syndrome.

METHODS

We identified three large families with coinheritance of early-onset coronary artery disease, central obesity, hypertension, and diabetes. We used linkage analysis and whole-exome sequencing to identify the disease-causing gene.

RESULTS

A founder mutation was identified in *DYRK1B*, substituting cysteine for arginine at position 102 in the highly conserved kinase-like domain. The mutation precisely cosegregated with the clinical syndrome in all the affected family members and was absent in unaffected family members and unrelated controls. Functional char-

From the Department of Internal Medicine, Yale Cardiovascular Research Center (A.R.K., M.F., G.-W.G., R.S., S.F., J.H., A.M.), Yale Center for Mendelian Genomics (M.C., S.M., R.P.L., A.M.), Department of Genetics (K.K.K., R.P.L., A.M.), and Howard Hughes Medical Institute (R.P.L.), Yale University School of Medicine, New Haven, CT; the Digestive Disease Research Institute, Shariati Hospital (M.F., K.S.-F., R.M.), and Department of Medical Genetics (M.F.), Tehran University of Medical Sciences, Tehran, the Cardiovascular Research Center, Shiraz University of Medical Sciences, Shiraz (M.K., K.S.-F., M.A.B.B.), and Ardabil University of Medical Sciences, Ardabil (A.H., M.B.) — all in Iran. Address reprint requests to Dr. Mani at arya.mani@yale.edu.

Original paper in Top GI Journal with Leadership from Iran Gastroenterology IF=21

Accepted Manuscript

Individual and Combined Effects of Environmental Risk Factors for Esophageal Cancer Based on Results From the Golestan Cohort Study

Mahdi Sheikh, Hossein Poustchi, Akram Pourshams, Arash Etemadi, Farhad Islami, Masoud Khoshnia, Abdolsamad Gharavi, Maryam Hashemian, Gholamreza Roshandel, Hooman Khademi, Mahdi Zahedi, Behnoush Abedi-Ardekani, Paolo Boffetta, Farin Kamangar, Sanford M. Dawsey, Paul D. Pharaoh, Christian C. Abnet, Nicholas E. Day, Paul Brennan, Reza Malekzadeh

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World class international collaboration

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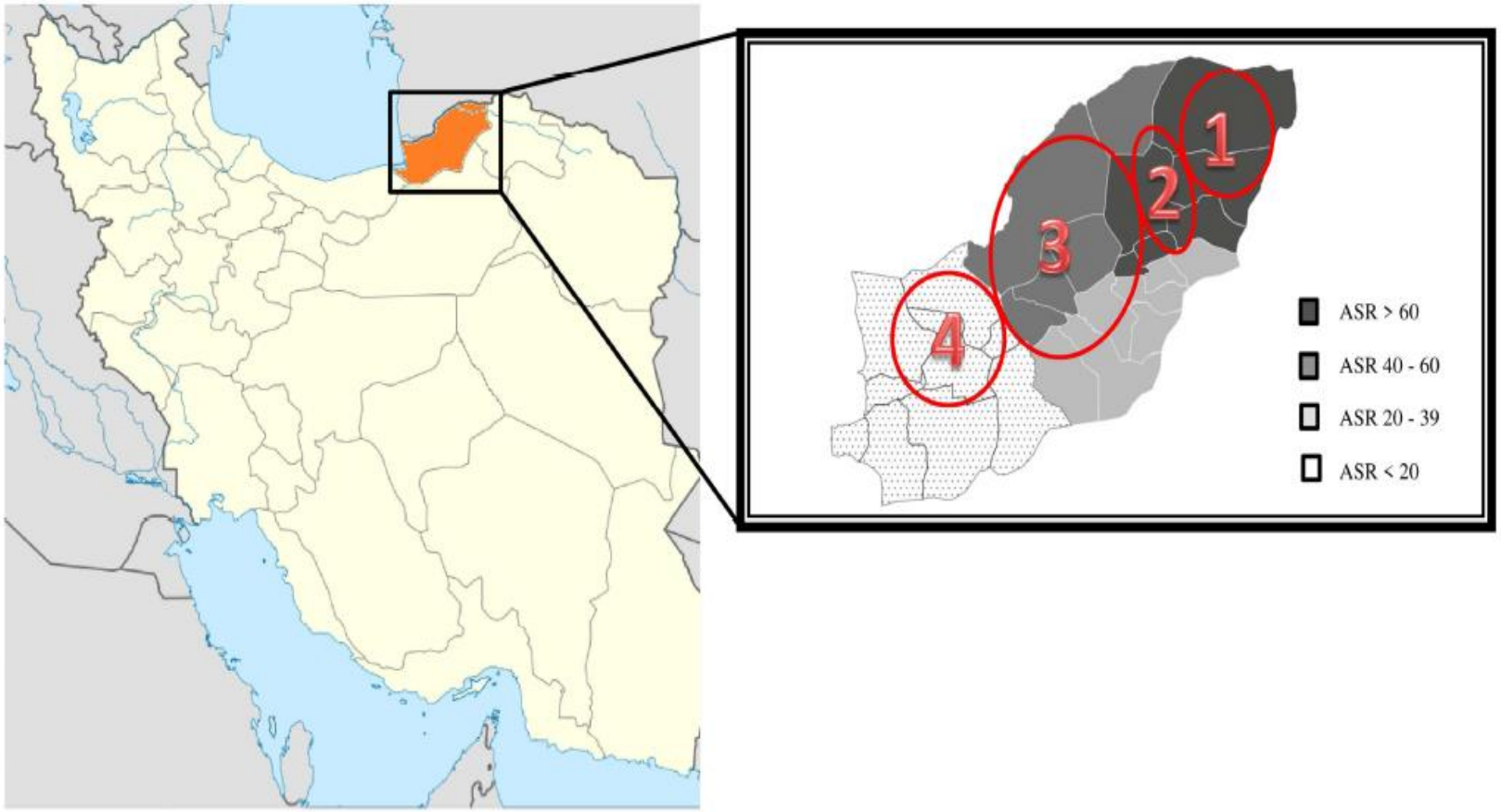
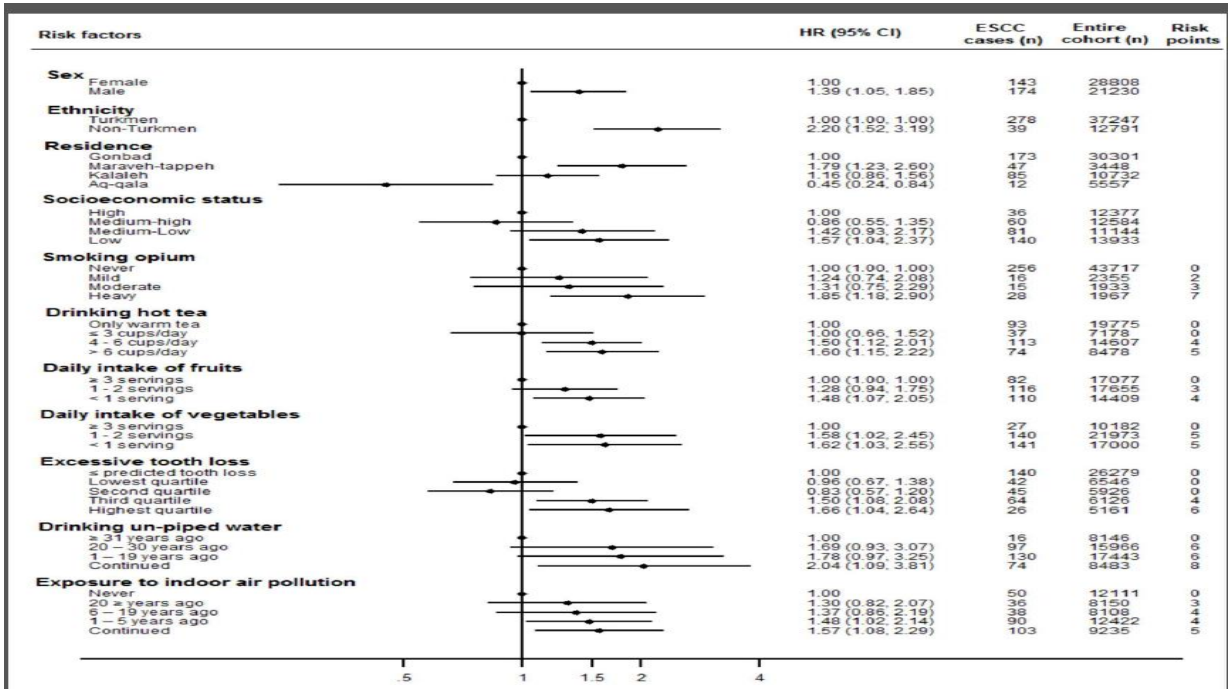
ACCEPTED MANU

Question?



Risk factors

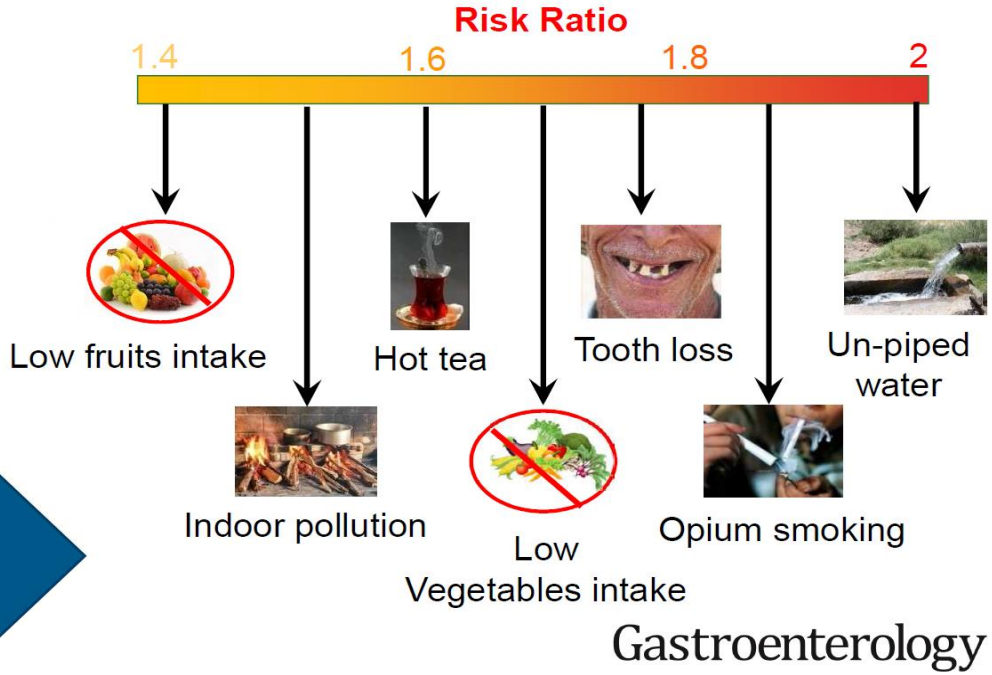


Etiology of ESCC

Golestan Cohort Study

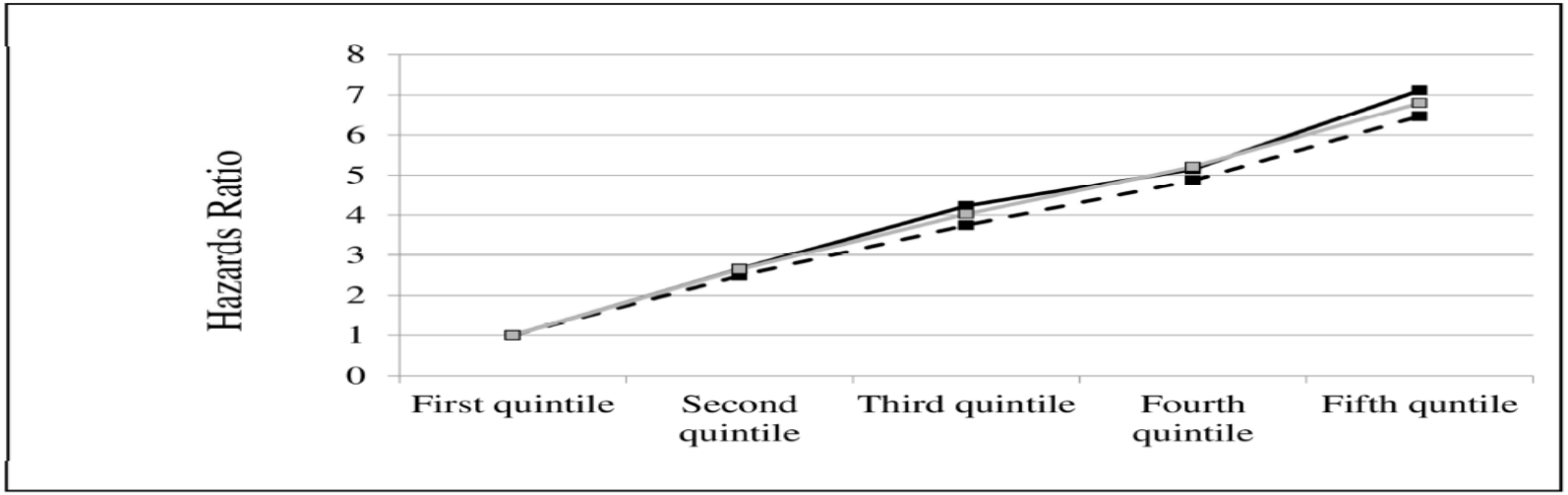
- Designed in North-East Iran to study esophageal cancer
- > 50,000 participants
- > 10 years of follow-up

76% of esophageal cancer cases are attributable to combined exposures to these risk factors



Gastroenterology

The hazards ratios of developing ESCC among the quintiles of the combined exposures score



—	All ESCC cases
- -	Histologically Confirmed
——	Diagnosed after 2 F/U yrs

1	2.66 (1.37 – 5.13)	4.23 (2.28 – 7.86)	5.15 (2.76 – 9.59)	7.12 (3.86 – 13.12)
1	2.49 (1.28 – 4.84)	3.75 (2.01 – 7.01)	4.87 (2.43 – 8.57)	6.47 (3.43 – 11.76)
1	2.65 (1.28 – 5.47)	4.03 (2.04 – 7.99)	5.21 (2.63 – 10.32)	6.80 (3.47 – 13.34)

*Gastric and Esophageal Malignancies In North of Iran

GEMINI Meeting (Gastro-Esophageal Malignancies in Northern Iran)
5-6 May 2009, IARC, Lyon

Other collaborators in the GEMINI project

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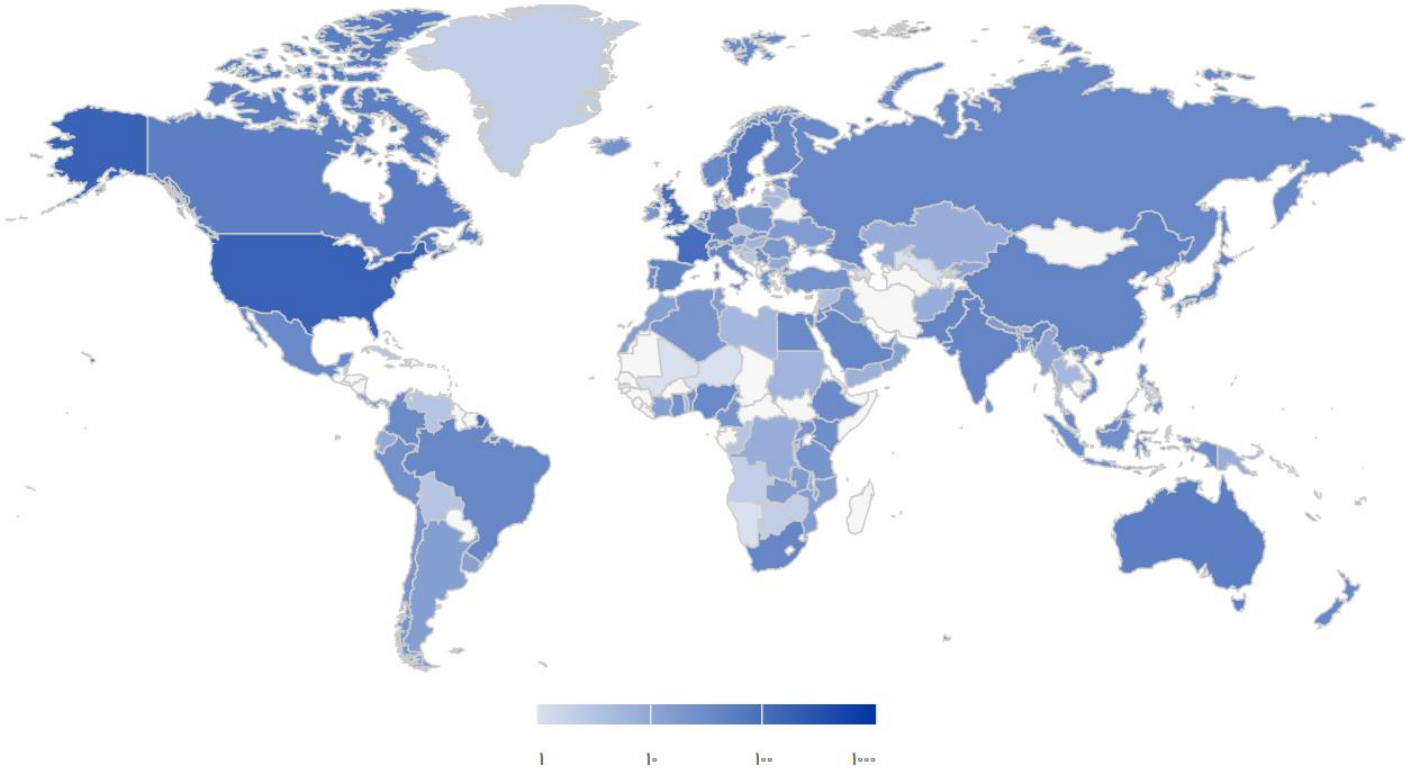
Web of Science (ISI)



Building the Infrastructure

Research infrastructure for future

CCS

Cohort

Biobank

Databases

Persian Cohort

- Investing for Future Collaboration

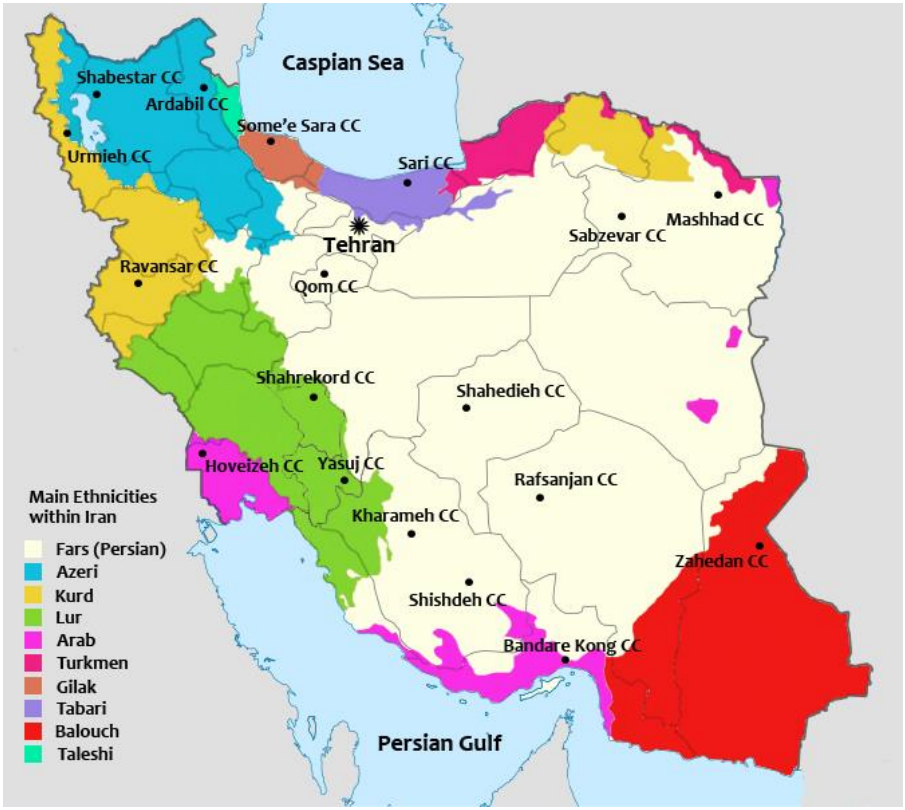
Prospective Epidemiological Research Studies in IrAN 2014

The PERSIAN Cohort

The PERSIAN Cohort

- It is necessary to conduct nationwide studies in order to identify the diseases that impose the highest burden on Iranian lives
- Iran houses people of many different ethnicities with different lifestyles and habits

Ethnicities and Geographical Areas Included in the PERSIAN Cohort



All of US

- Very new cohort of one million participants as the main NIH initiative for precision medicine in USA stated in 2018

Central to the USA PMI initiative will be

- The creation of a research cohort of 1 million US volunteers who agree to provide researchers with biological, environmental, lifestyle, and other information as well as tissue samples.
- Design measures to ensure that the 1 million research cohort "is diverse and inclusive",
- "Being very thoughtful about making sure that we are actually eliminating health disparities rather than creating them through this initiative."

List of cohorts invited for collaboration by All of US study

	~Enrollment	~Target	Phenotypes (Detail removed)	Biospecimens (may be available for a subset)
23andMe	3,000,000	3,000,000	Broad	DNA.
45 and Up Study	267,153	267,153	Broad	>3,000 blood. Plans to collect >50,000
Aarhus Birth Cohort (ABC)	100,000	100,000		Blood; umbilical cord tissue
Africa Centre for Health and Population Studies	850,000	850,000		Blood
Age 40 Programme	420,000	420,000		
Apolipoprotein-related MOrtality RISk (AMORIS)	812,073	812,073	Broad	Blood
Asia Cohorts Consortium				
AstraZeneca Integrated Genomics Initiative		500,000	NA	Blood
Bandim Health Project (BHP)	150,000	150,000		Yes
Barshi Cohort	21,000	200,000	CVD, Cancer, Stroke	Blood, Nail
BBMRI-NL-Biobank	400, 000	400, 000	Broad -	DNA, serum, plasma, urine, stool
Biobank Japan	270,000	270,000	Broad	DNA and serum.
BioVU Vanderbilt	244,000	244,000	Broad	Plasma (piloting)
California Teachers Study (CTS)	133,479	133,479	Broad	Blood, saliva, urine
Cancer Prevention Study II Nutrition Cohort	185,000	185,000	Broad	DNA, blood, saliva, tumour tissue
Cancer Prevention Study-II (CPS-II)	1,185,106	1,185,106	Specific cause of death (99% of known deaths). Verified cancer incidence; self-reported other diseases	Blood with plasma, serum, RBCs. Mouthwash (70,000) with cell pellet for DNA. Cancer tissue.
Children's Hospital of Philadelphia (CHOP)	500,000	1,000,000	Broad	Blood, PBMCs, plasma
China Kadoorie Biobank	512,891	Broad	Broad	Blood (plasma and buffy) urine, fecal
China PEACE (Patient-centered Evaluative Assessment of Cardiac Events) Million Persons Project	2,000,000	4,000,000	Cardiovascular diseases, stroke, COPD and cancer.	Blood and urine.
China Precision Medicine Initiative				
Chinese Longitudinal Healthy Longevity Survey	96,843	96,843	Broad	Blood/fractions, urine, saliva
Chinese Newborn Sequencing Project	100,000	100,000		DNA
Clalit Israeli Genome Project	140,000	140,000	At least 130 different diseases	Bloods, buccal swabs, feces
Cohort of Norway (CONOR)	200,000	200,000	Broad	Blood
Constances	162,000	200,000	Broad	Blood, serum, plasma, urine
Cooper Center Longitudinal Study	100,000	100,000		Blood
Danish National Biobank	5,400,000	5,400,000	None	Blood
Danish National Birth Cohort	101,042	101,042	Broad	Cord blood, Gutheri cards
East London Genes and Health	27,806	100,000	Broad	DNA on all. Blood and urine planned.
Echantillon Généraliste des Bénéficiaires	600,000	600,000		

Golestan Cohort study

39				health registers of Biobanks.	
40	**Generations Study (GS)**	113,000	113,000	Site-specific cancer incidence, cause-specific mortality, diabetes, reproductive-related diseases, anthropometrics.	Blood, urine, tumour.
41	**Genome Asia 100K**	100,000	100,000		
42	**Genomics England / 100,000 Genomes Project**	75,000	75,000	300 rare disease categories reaching 1200 disorders. 15 cancer types	DNA, RNA plasma (rare diseases). Germline DNA, Somatic DNA, samples for RNA and cfTDNA
43	**German National Cohort (NAKO)**	35,000	200,000	Broad	Serum, plasma, Urina, Saliva, nasal swab, stool
44	**Golestan Cohort Study**	50,000	50,000	All cancer outcomes, cardiovascular diseases and mortality	Blood (serum, whole blood, buffy coat, plasma), urine, hair, and nail
45	**Icelandic deCode Biobank**	250,000	250,000		
46	**ICMR - National Institute for Epidemiology for India**				
47	**Japan Public Health Center-based Prospective Study (JPHC Study)**	13,000	13,000	Broad	Blood (50,000)
48	**Japan Public Health Center-based Prospective Study for the Next generation (JPHC-NEXT)**	115,405	115,405	Broad	Blood (50,000), Urine (50,000)
49	**Kailuan study**	101,510	101,510		Blood
50	**Kaiser Permanente Research Program on Genes, Environment, and Health (RPGEH)**	210,000	500,000	Broad	Saliva, blood (EDTA-preserved and serum)
51	**Kaiser Permanente Southern California Children's Health Study**	920,034	920,034		Blood
52	**Kangbuk Samsung Health Study**	281,238	281,238		Blood
53	**Karonga Prevention Study**				
54	**Karunagappally Cohort**	359,614	359,614		
55	**KEMRI-Wellcome Trust Research Programme**	220,000	220,000		Blood, saliva
56	**Korea Biobank Project**	830,000	830,000	Broad	KoGES: serum, plasma, DNA, urine, lymphocytes.

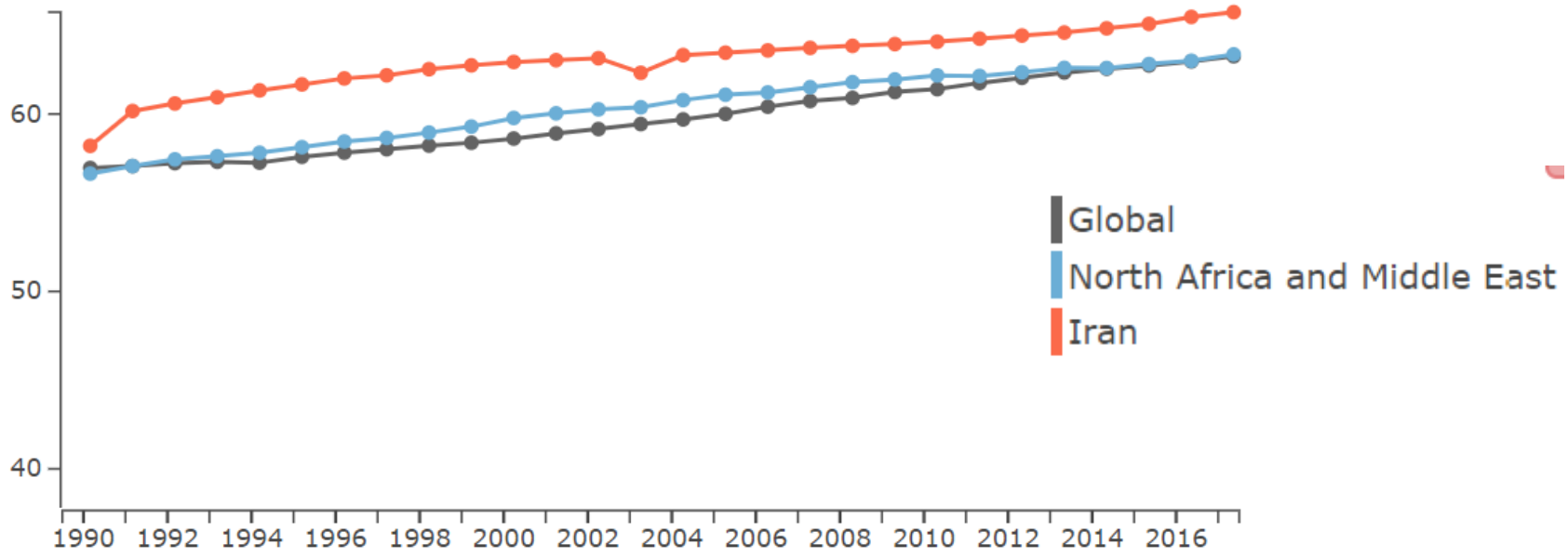
Persian cohort study

77	Norwegian Mother and Child Cohort Study (MoBa)	284,000	284,000	Broad	Blood, urine, teeth
78	Norwegian Women and Cancer Study	172,000	172,000		Blood, tumor and normal tissue
79	Nurses' Health Study (NHS, NCI)	121,700	121,700	Broad	Blood, saliva, tumor tissue, urine, toenails
80	Nurses' Health Study II (NHSII, NCI)	116,430	116,430	Broad	Blood, saliva, tumor tissue, nails,urine. Fecal pending.
81	OHS (Ontario Health Study) and the Canadian Partnership for Tomorrow Project (CPTP)	315,000	315,000	Broad	Blood and Urine
82	PERSIAN Cohort Study	180,000	180,000	All NCDs including cardiovascular diseases, all cancers	Yes, blood (serum, whole blood, buffy coat, plasma), urine, hair, nail. Stool pending.
83	PROMIS				
84	Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial (PLCO, NCI)	154,907	154,907	All cancers. Selected self-reported. Chronic diseases on ~1/3 based on Medicare claims.	Blood, buccal cells, lymphocytes, tumor tissue
85	Qatar Genome Project				
86	Saudi Human Genome Program	100,000	100,000		Blood
87	Saudi National Biobank	2,000	2,000	We will be doing initial descriptive analysis. We can provided once completed.	Blood
88	Singapore National Precision Medicine Program	10,000	1,000,000		Initial 10,000 collected
89	South African Population Research Infrastructure Network (SAPRIN)	250,000	250,000		Blood
90	South(east) Asian cohorts - NETWORK	50,000 currently	150,000	NCDs such as Cardiovascular diseases (CVD) respiratory illness, cancer outcomes, chronic kidney disease, and various communicable diseases	Blood (Whole Blood, Serum, Plasma), DNA (extracted from whole blood), and toenail
91	Swiss National Cohort	6,800,000	6,800,000		
92	Taiwan Biobank	92,371	200,000	Broad	Urine, blood
93	Taizhou Biobank	200,000	200,000		
	The Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)	15,105	15,105	Cardiovascular, diabetes by OGTT, renal, thyroid	Fasting: serum, plasma, plasma-EDTA, plasma-heparin, plasm-citrate. After OGTT: serum, plasma-heparin. Urine. Subsetting: cells.

New technologies have been readily adopted by cohort studies

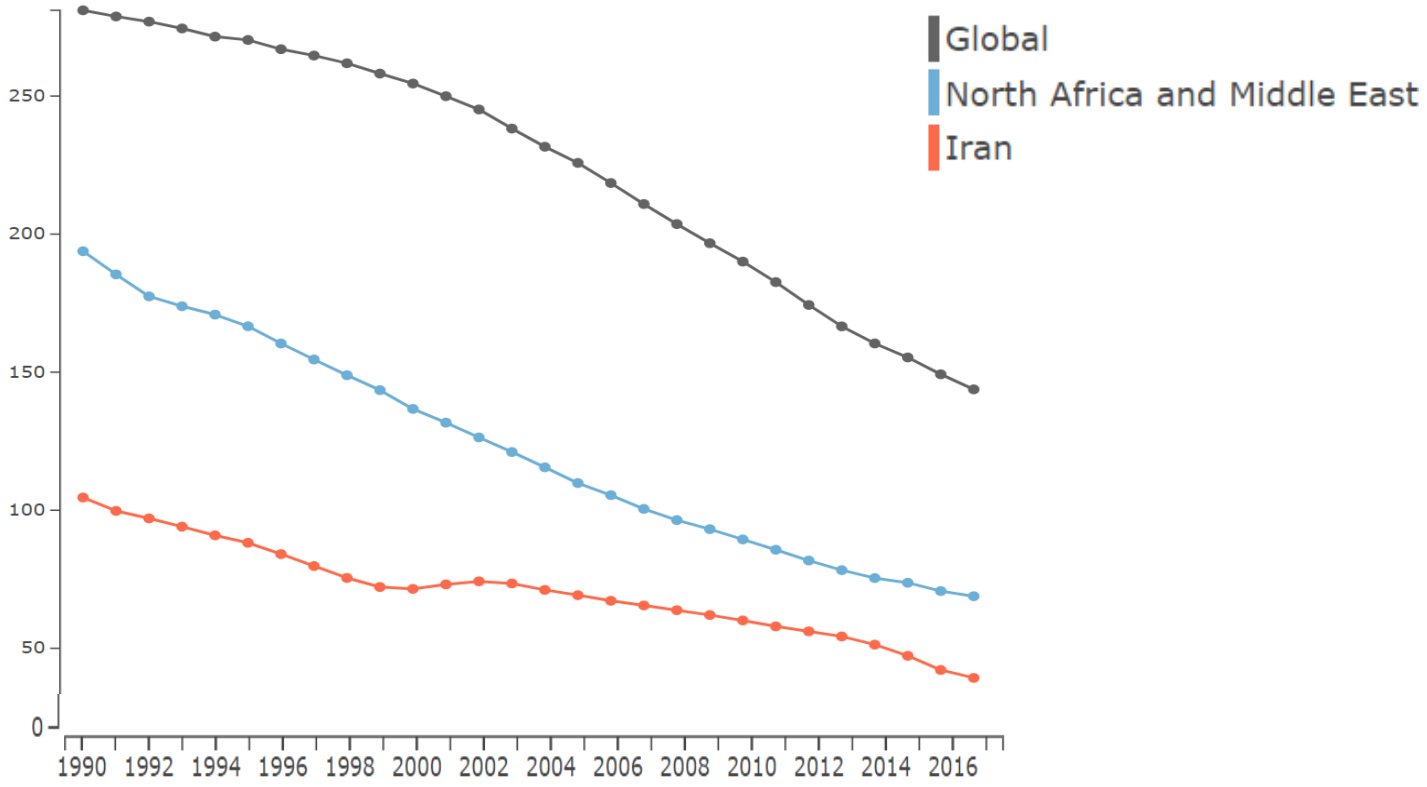
- 68% of UK cohort studies have undertaken genotyping, and half have epigenetic or metabolomic data.
- The inclusion of genotyping in large cohorts with longitudinal phenotypic information enables more robust studies of gene– environment interactions, such as in the Lothian cohort which showed that genetic factors account for only a quarter of change in intelligence with age.

Healthy Life Expectancy at birth*

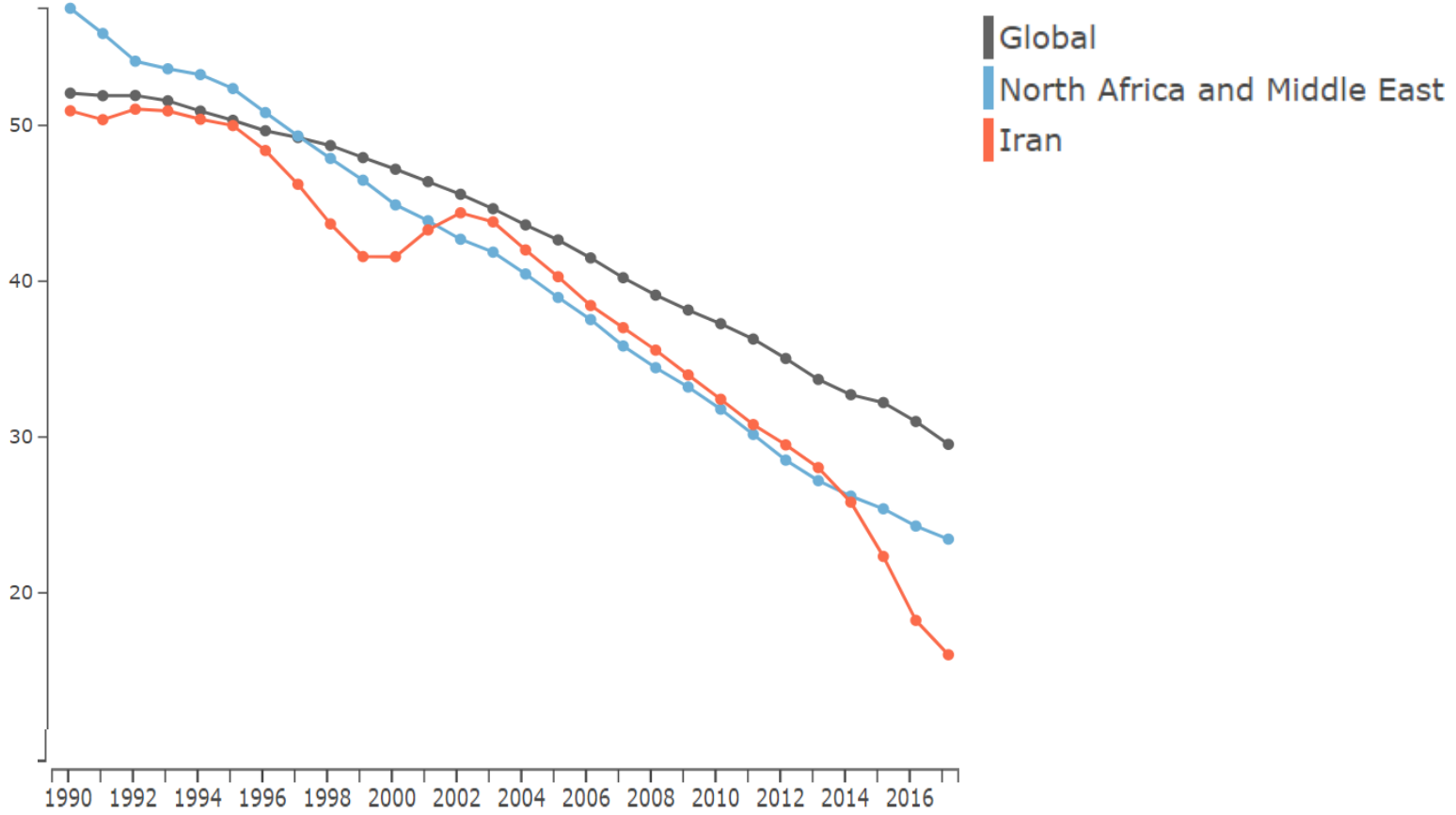


GBD 2017 Lancet 2018

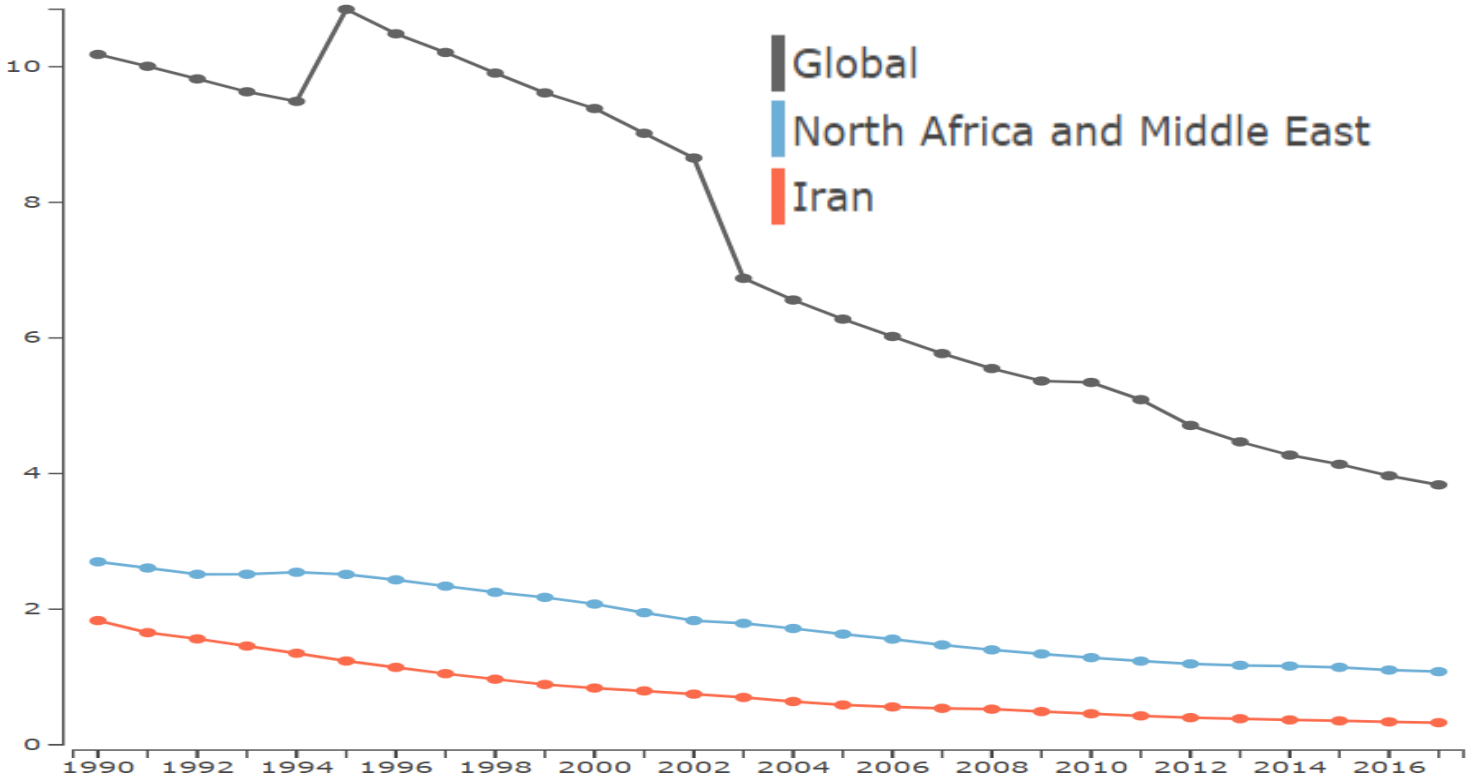
Age standardized death rates per 100,000 both sexes, Communicable and Maternal Diseases



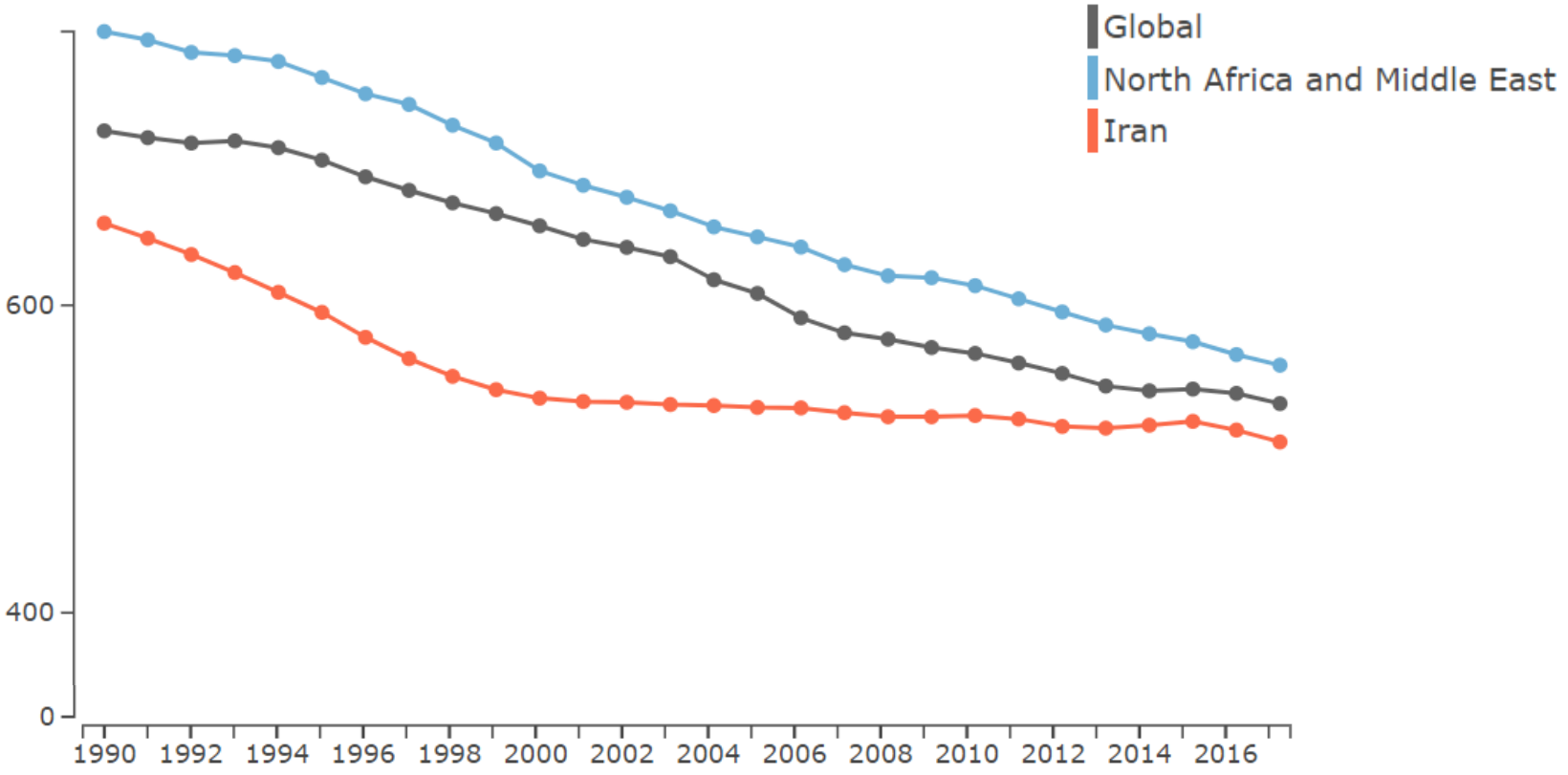
Age standardized death rates per 100,000 both sexes, Maternal and Neonatal Disorders



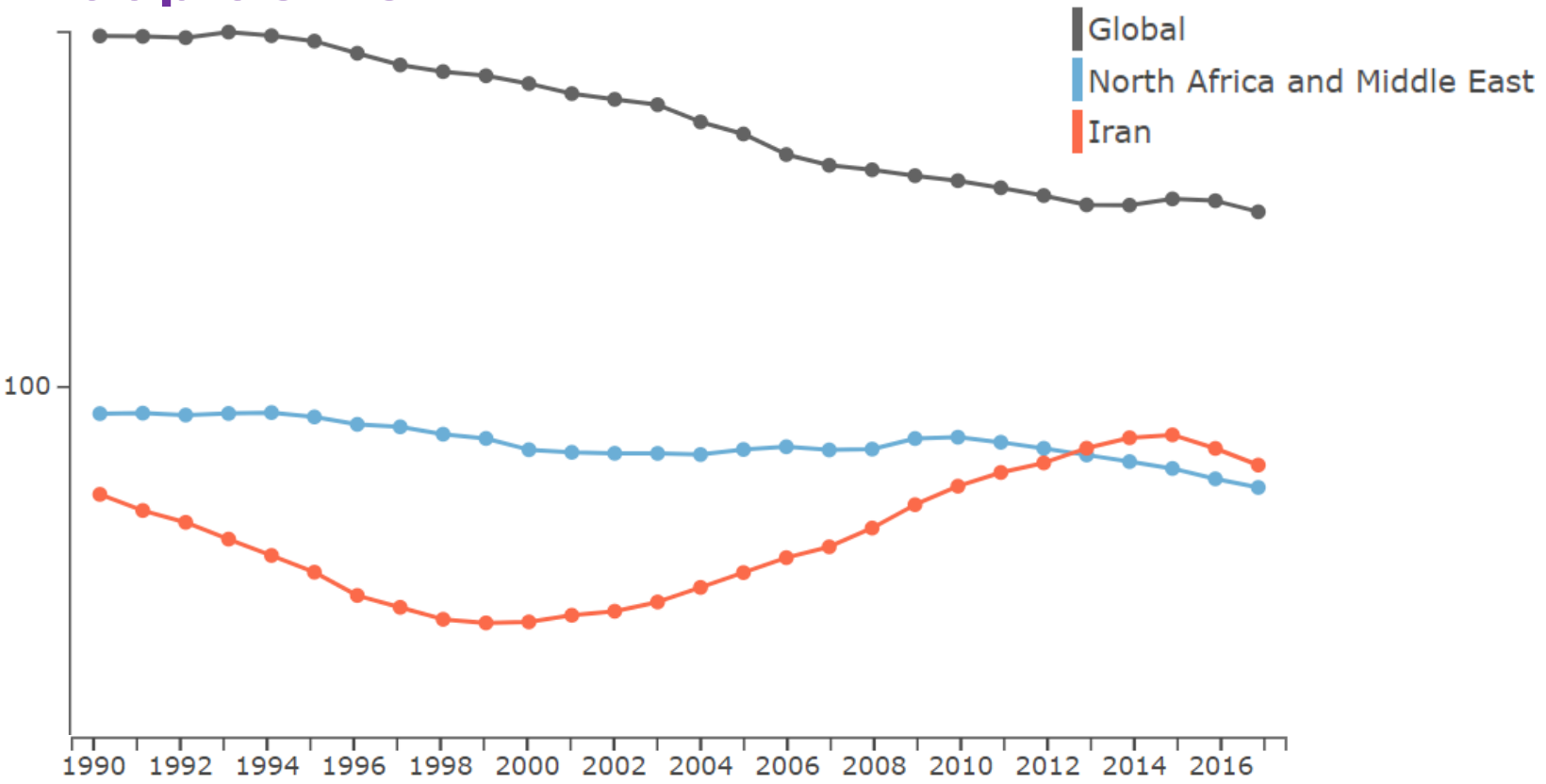
Age standardized death rates per 100,000 both sexes, Nutritional Deficiencies



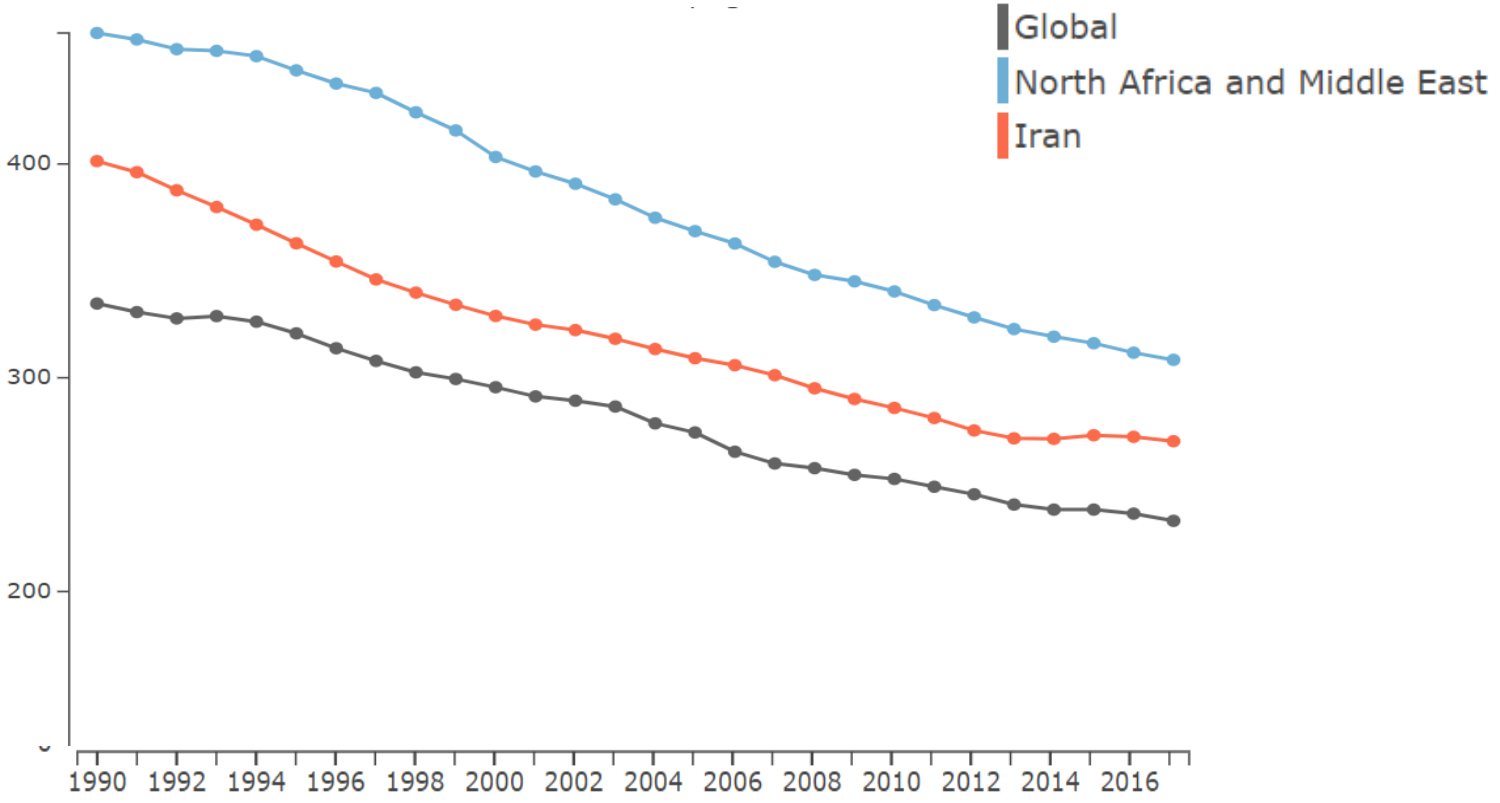
Age standardized death rates per 100,000 both sexes, Non-Communicable Diseases



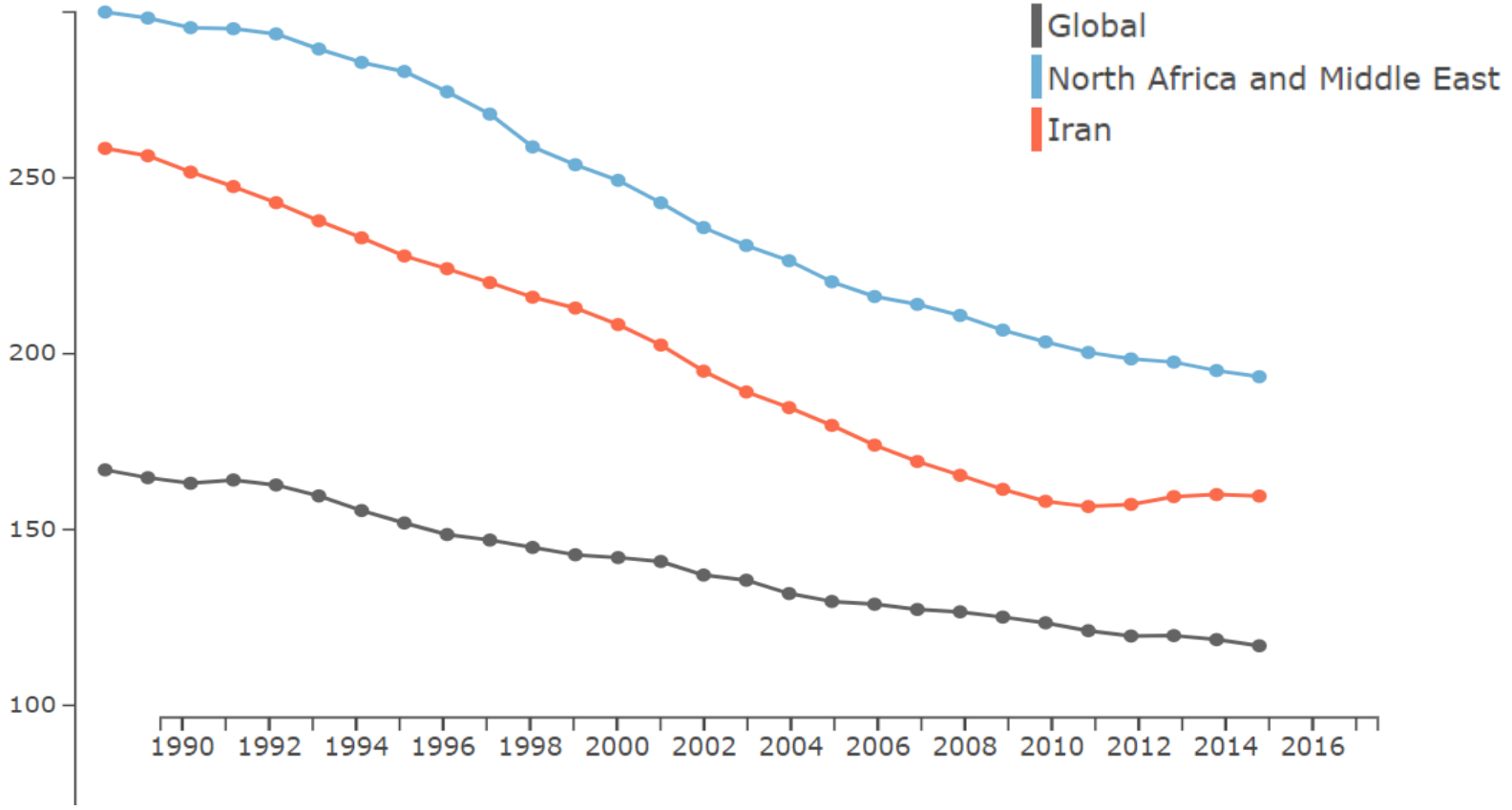
Age standardized death rates per 100,000 both sexes, Neoplasms



Age standardized death rates per 100,000 both sexes, Cardiovascular Diseases

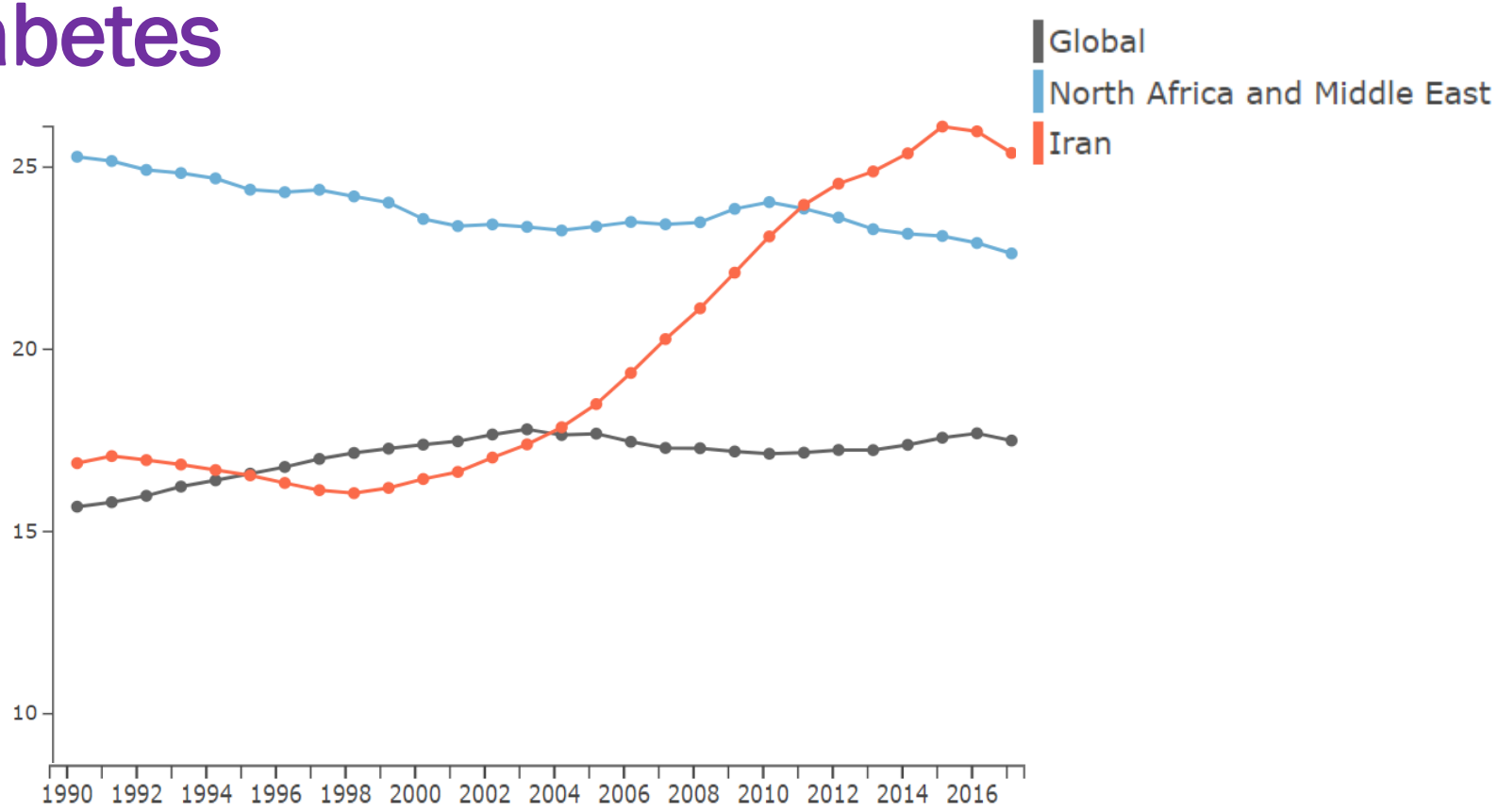


Age standardized death rates per 100,000 both sexes, Ischemic Heart Disease

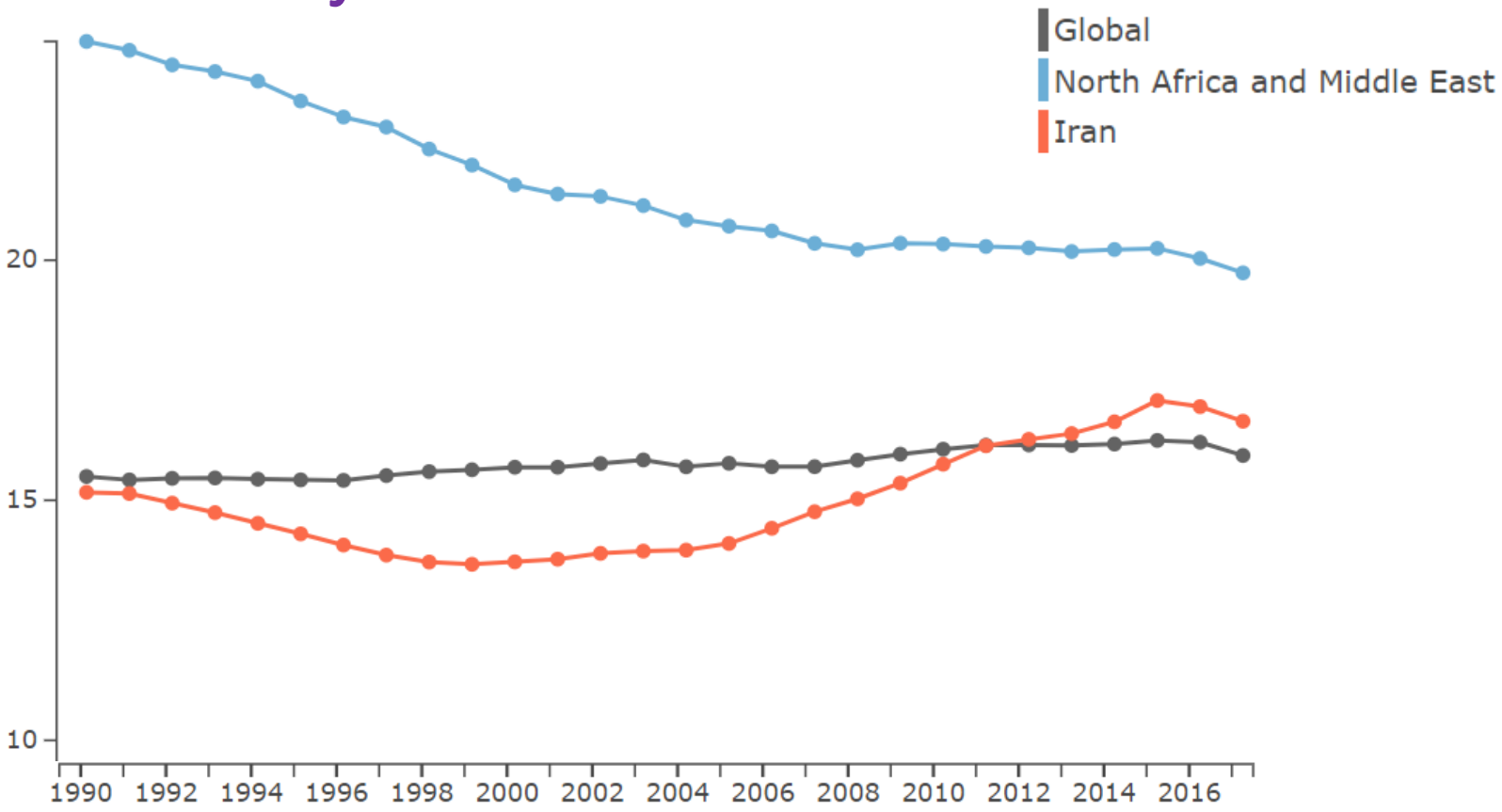


Age standardized death rates per 100,000 both sexes,

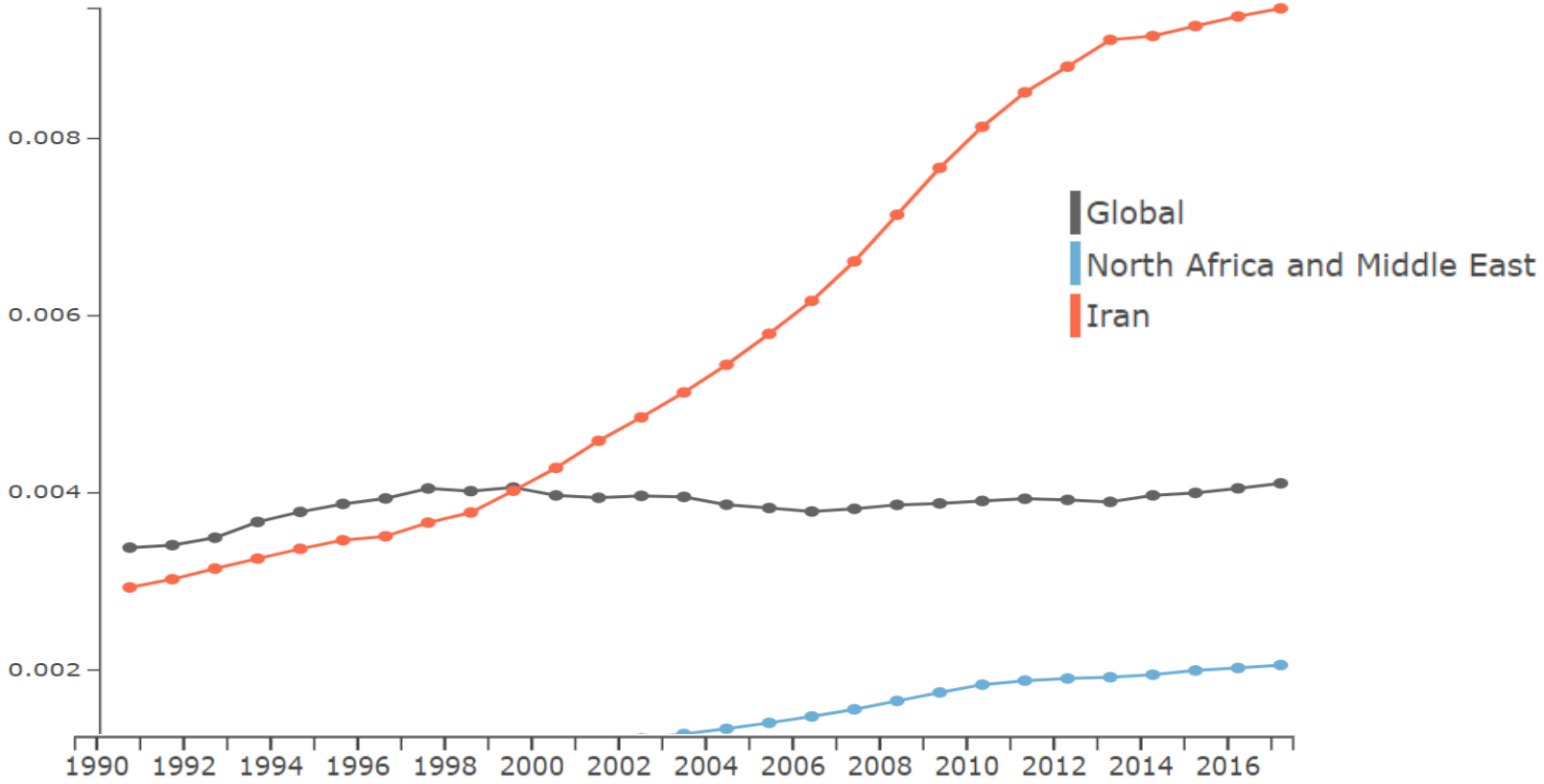
Diabetes



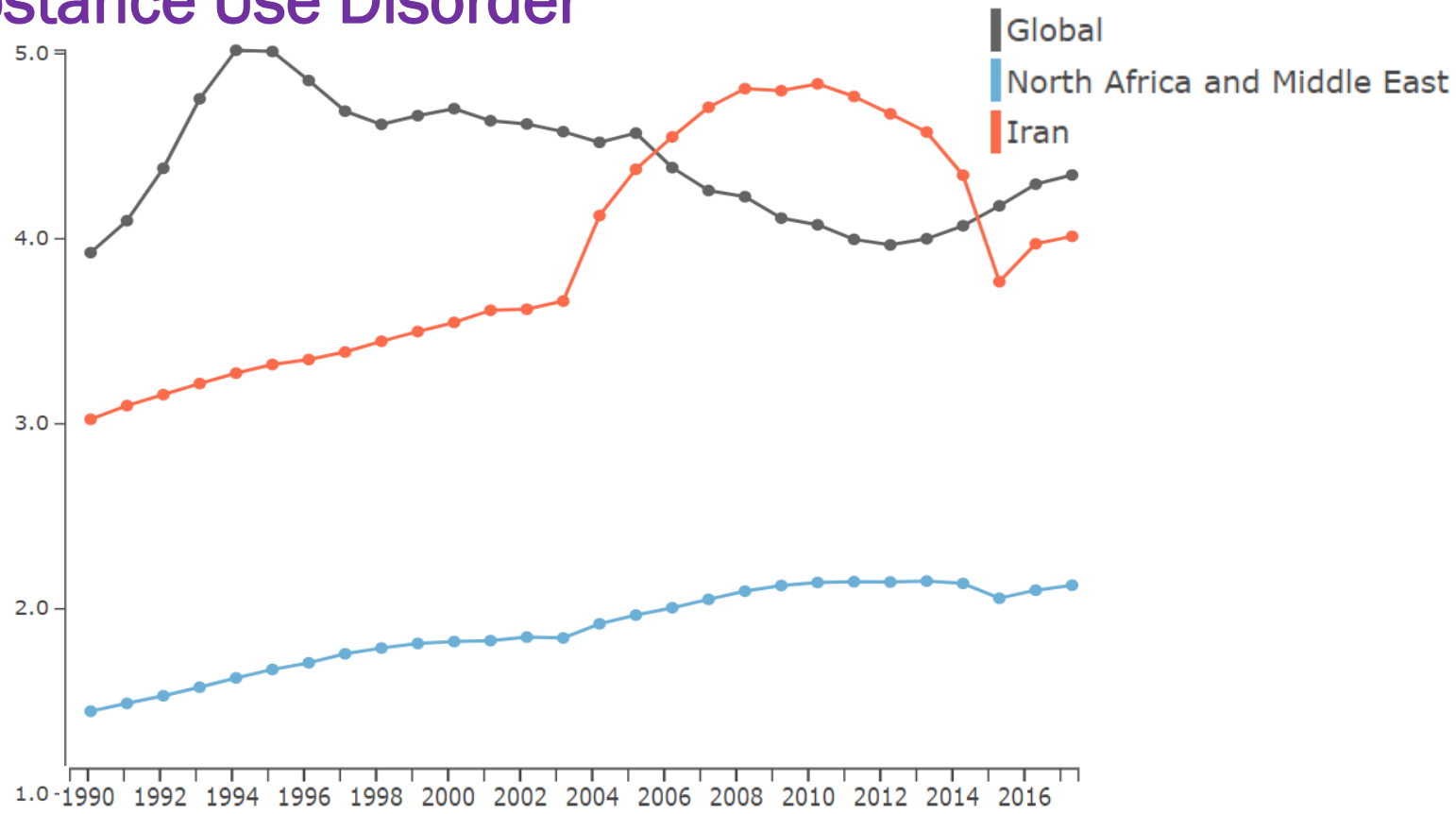
Age standardized death rates per 100,000 both sexes, Chronic Kidney Disease



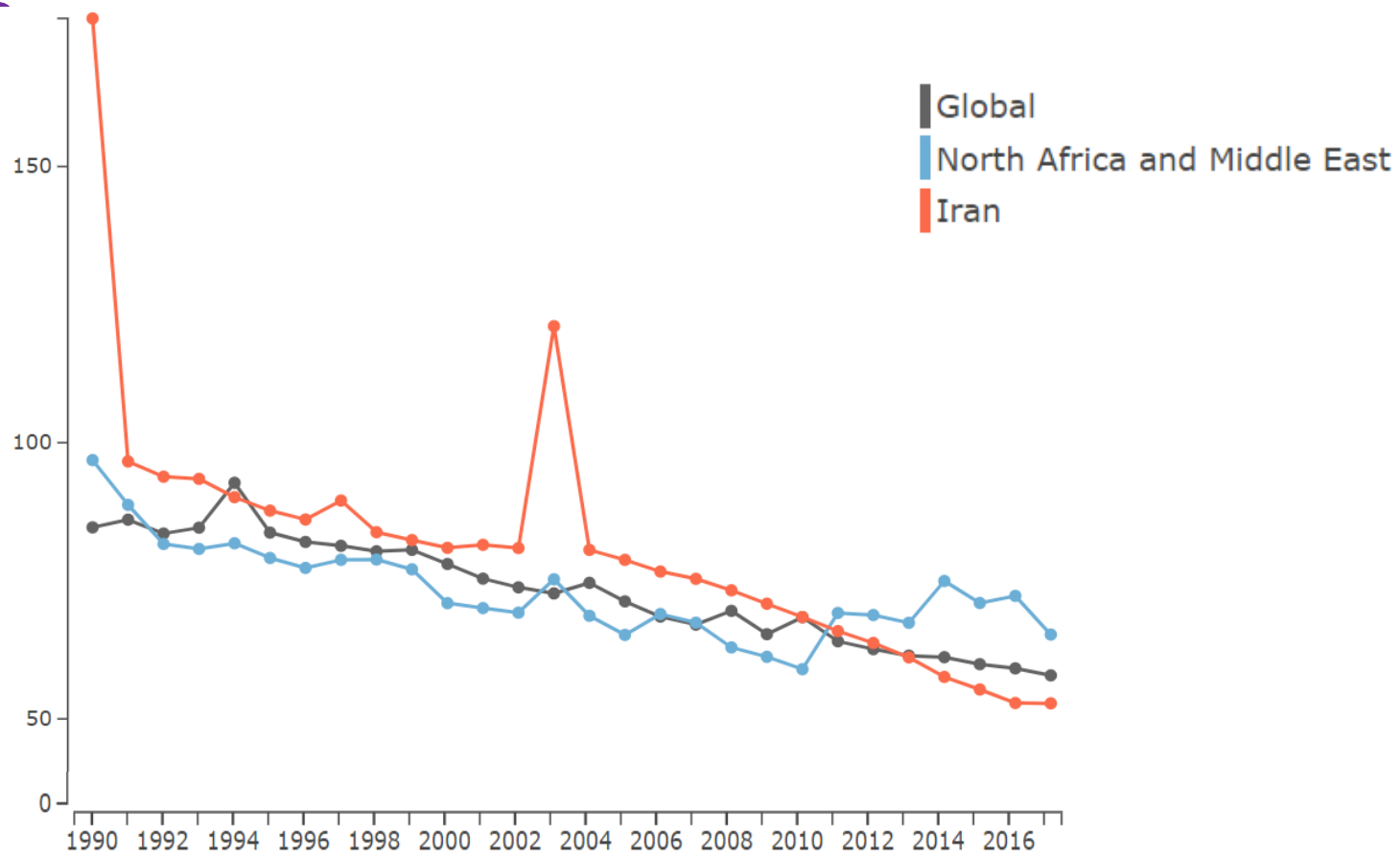
Age standardized death rates per 100,000 both sexes, Mental Disorders



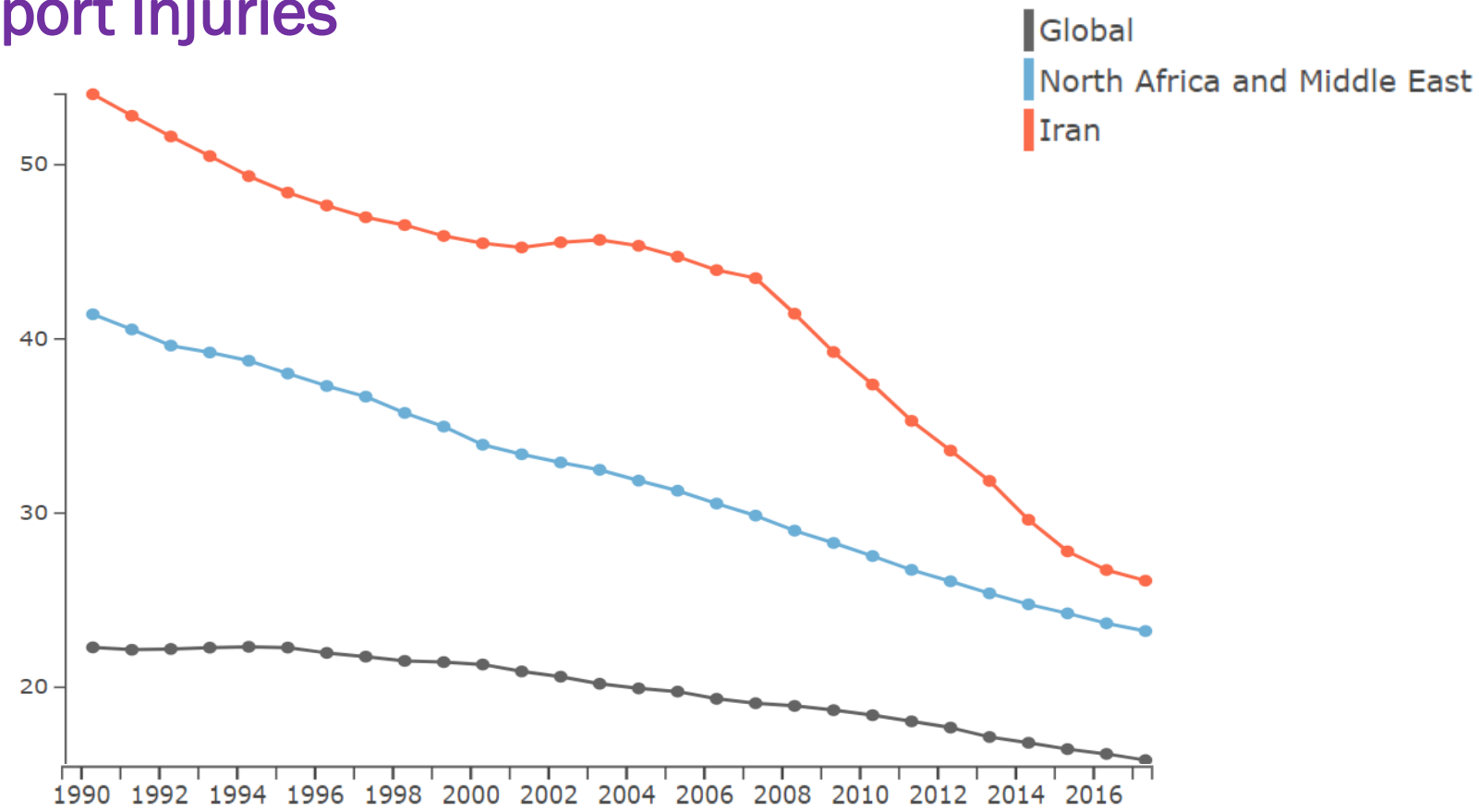
Age standardized death rates per 100,000 both sexes, Substance Use Disorder



Age standardized death rates per 100,000 both sexes, All Injuries



Age standardized death rates per 100,000 both sexes, Transport Injuries



BMJ Open

Causes of premature death and their associated risk factors in the Golestan Cohort Study, Iran

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ABSTRACT

Objectives To examine the causes of premature mortality (<70 years) and associated risk factors in the Golestan Cohort Study.

Design Prospective.

Setting The Golestan Cohort Study in northeastern Iran.

Participants 50 045 people aged 40 or more participated in this population-based study from baseline (2004–2008) to August 2017, with over 99% success follow-up rate.

Main outcome measures The top causes of premature death, HR and their 95% CI and population attributable fraction (PAF) for risk factors.

Results After 444 168 person-years of follow-up (median of 10 years), 6347 deaths were reported, of which 4018 (63.3%) occurred prematurely. Ischaemic heart disease (IHD) accounted for 33.9% of premature death, followed by stroke (14.0%), road injuries (4.7%), stomach cancer (4.6%) and oesophageal cancer (4.6%). Significant risk/protective factors were: wealth score (HR for highest vs lowest quintile: 0.57, PAF for lowest four quintiles vs top quintile: 28%), physical activity (highest vs lowest tertile: 0.67, lowest two tertiles vs top tertile: 22%), hypertension (1.50, 19%), opium use (1.69, 14%), education (middle school or higher vs illiterate: 0.84, illiterate or primary vs middle school or higher: 13%), tobacco use (1.38, 11%),

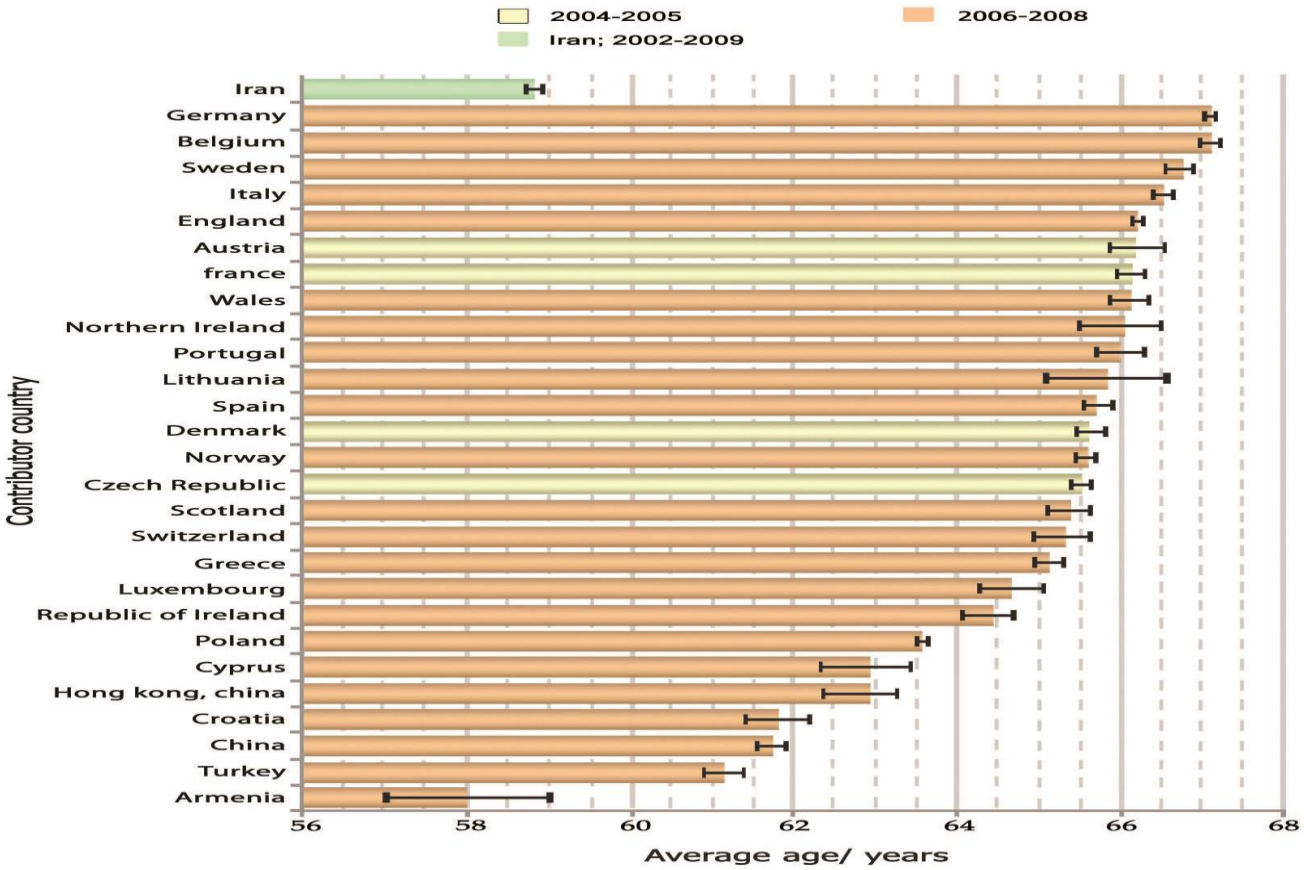
Strengths and limitations of this study

- The Golestan Cohort Study is one of the largest and oldest population-based cohort studies in the Middle East, with over 50 000 participants, and less than 1% loss to follow-up after 10 years.
- The accuracy of the follow-up and cause of death ascertainment, as well as availability of detailed and validated data on risk factors, are important strengths of this study.
- The cohort has no data on people younger than 40 years old, and the participants are mainly representative of the rural population.

with decreased income, poor mental health, loss of education and childhood and increased mortality in the affected families.[2–4]

The burden of premature mortality is particularly high in the low/middle-income countries (LMICs); over 80% of these premature deaths—defined as death before 70 years of age—occur in the LMICs.[5] The WHO esti-

Isolated CABG: Average age and contributor country: Tehran Heart Center 2002-2009



BMJ Open

Cardiovascular mortality in a Western Asian country: results from the Iran Cohort Consortium

Noushin Fahimfar,[1] Davood Khalili,[2,3] Sadaf Ghajarieh Sepanlou,[4] Reza Malekzadeh,[4,5] Fereidoun Azizi,[2] Mohammad Ali Mansournia,[1] Hamidreza Roohafza,[6] Mohammad Hassan Emamian,[7] Farzad Hadaegh,[2] Hossein Poustchi,[4] Marjan Mansourian,[6,8] Hassan Hashemi,[9] Maryam Sharafkhah,[1,4] Akram Pourshams,[4] Farshad Farzadfar,[10] Ewout W Steyerberg,[11,12] Akbar Fotouhi[1]

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ABSTRACT

Objectives Cardiovascular mortality in Western Asia is high and still rising. However, most data documented on risk prediction has been derived from Western countries and few population-based cohort studies have been conducted in this region. The current study aimed to present the process of pooling data and cardiovascular disease (CVD) mortality incidences for four Iranian cohorts.

Methods From the Iran Cohort Consortium, the Golestan Cohort Study (GCS), Tehran Lipid and Glucose Study, Isfahan Cohort Study (ICS) and the Shahroud Eye Cohort Study (ShECS) were eligible for the current study since they had appropriate data and follow-up visits. Age-standardised CVD mortality rates were estimated for ages 40–80 and 40–65 years. Cox regression was used to compare mortalities among cohorts. Adjusted marginal rates were calculated using Poisson regression.

Results Overall, 61 291 participants (34 880 women) aged 40–80 years, free of CVD at baseline, were included. During 504 606 person-years of follow-up, 1981 CVD deaths (885 women) occurred. Age-standardised/sex-standardised premature CVD mortality rates were estimated from 133 per 100 000 person-years (95% CI 81 to 184) in ShECS to 366 (95% CI 342 to 389) in the GCS. Compared with urban women, rural women had higher CVD mortality in the GCS but not in the ICS. The GCS

Strengths and limitations of this study

- The main strength of this study is the assessment and comparing of cardiovascular disease (CVD) mortality incidence rates using harmonised data of four large Iranian population-based cohorts. These values supplied much useful information about CVD mortality compared with non-cohort studies with less reliable International Statistical Classification of Diseases and Related Health Problems coding (ICD).
- A high incidence of CVD mortality and premature CVD mortality was evident in Iranian populations. Regional differences were found in prevalence of risk factors and also in CVD incidence adjusting for conventional risk factors.
- Study limitation includes that we adjusted the differences for traditional risk factors while there are other risk factors for CVD which were not measured in all of the cohorts.

for 46% of deaths. High prevalence of CVD risk factors has also been reported in this region.[2] Mean age-standardised cholesterol

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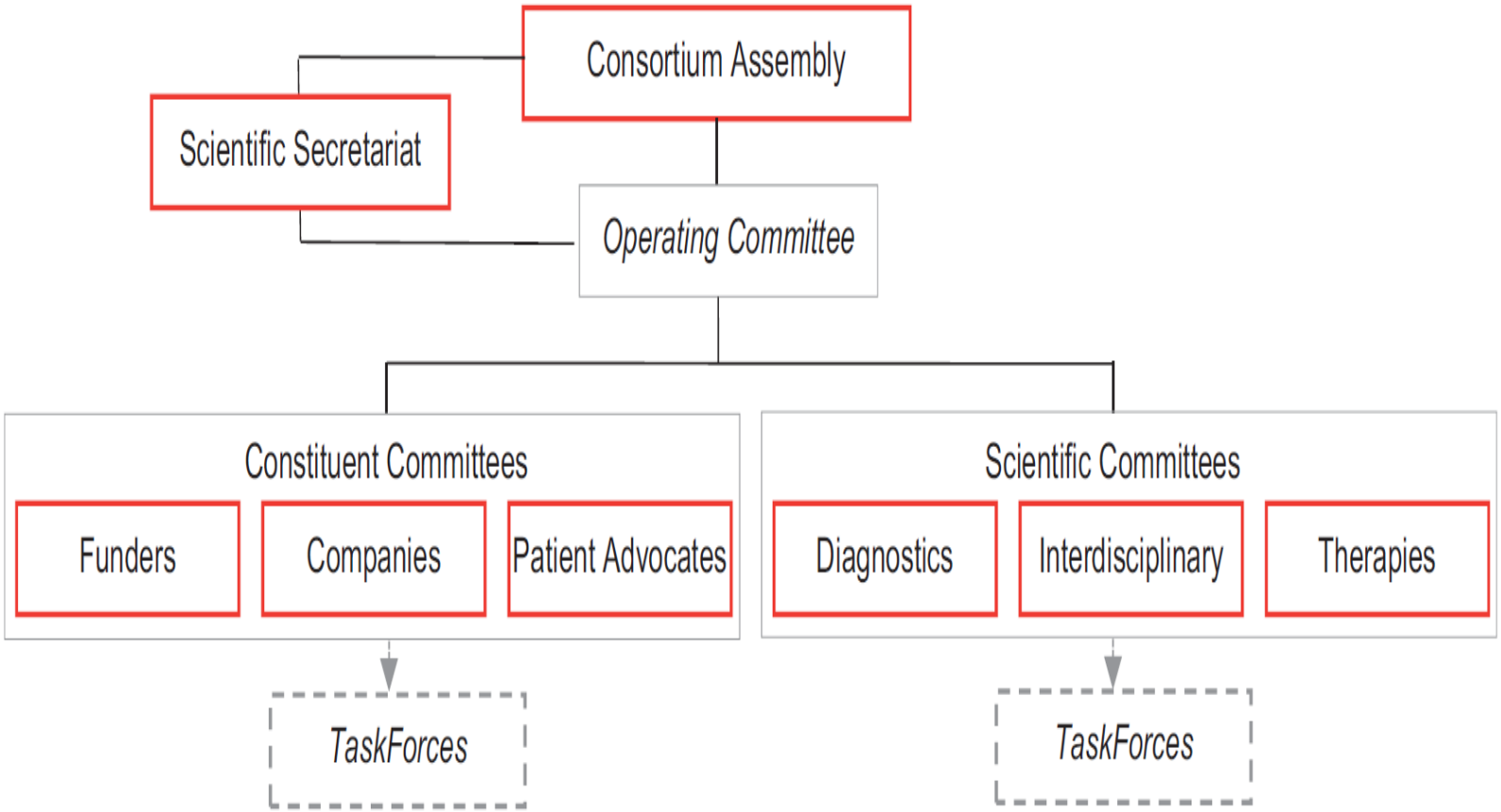
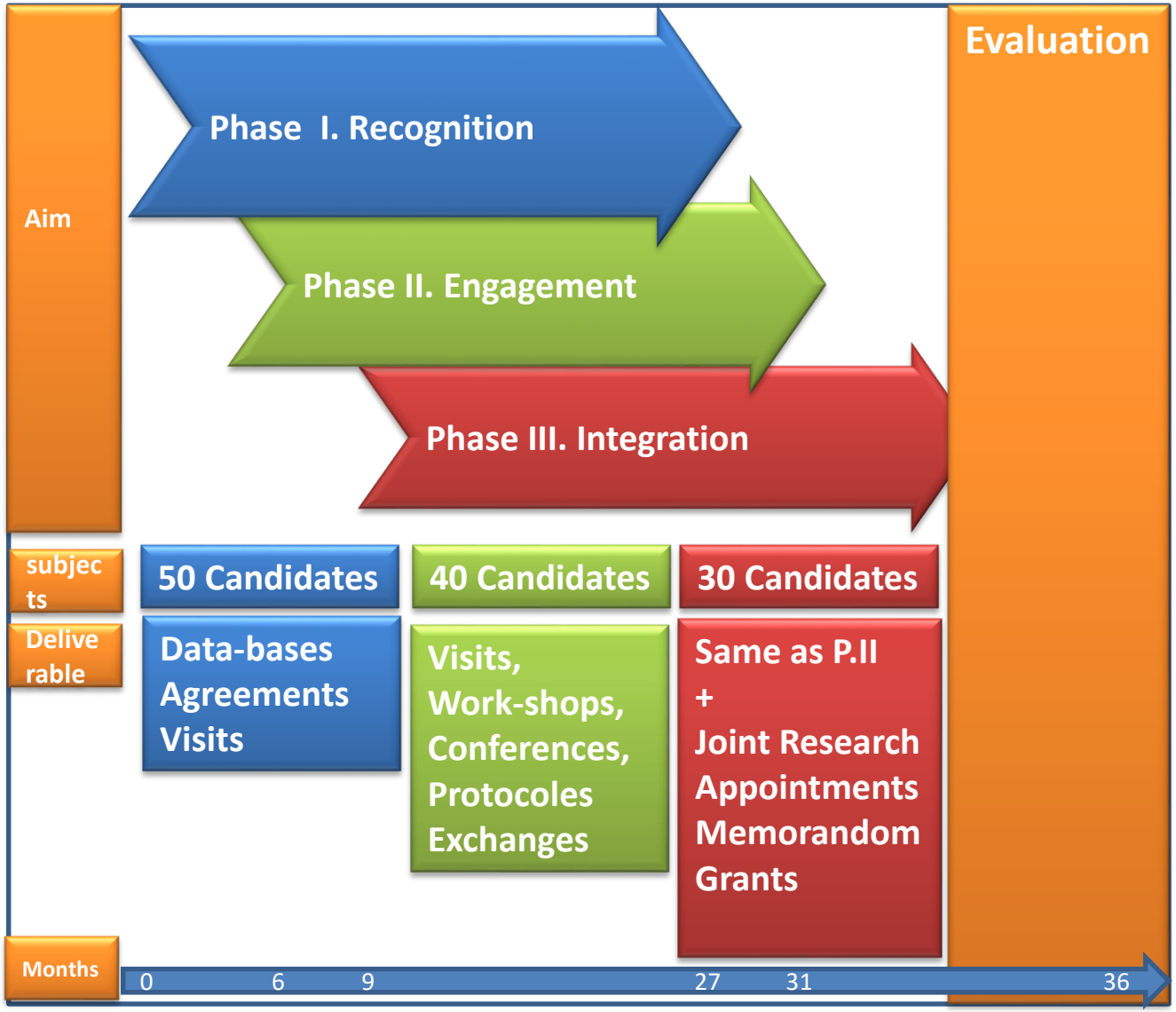
Future ICC governance Structure




Evaluation
Aim
Phase I. Recognition
Phase II. Engagement
Phase III. Integration
subjec ts
50 Candidates
40 Candidates
30 Candidates
Delive rable
Data-bases Agreements Visits
Visits, Work-shops, Conferences, Protocoles Exchanges
Same as P.II + Joint Research Appointments Memorandom Grants
Months
0
6
9
27
31
36

تعريف سازمان بهداشت جهاني از پژوهش در سلامت

توليد دانش با هدف :

- درک صحيح چالش هاي موجود در سلامت.

- تدوين راهکارها ی مناسب برای برخورد با آ نها

Scientific Collaboration

- A continuous line of human relationships and traditions since past ; like an unbroken thread.
- It links cultures and peoples.
- It brings tolerance and understanding.
- It delivers hope and compassion.

با تشکر از توجه شما