

## Davood Khalili

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<https://connects.catalyst.harvard.edu/Profiles/display/Person/159440>

### Education

#### Official degrees:

2012	Medical Specialty (MD, PhD)	Epidemiology	Shahid Beheshti University of Medical Sciences, Tehran
2008	Master (MPH)	Public Health	Shahid Beheshti University of Medical Sciences, Tehran
1998	MD	Medicine	Urmia University of Medical Sciences, Urmia, Iran

#### Other advanced training

2019	Clinical Genomics	31st Course jointly organized by ESGM, ESHG, and CEUB
2016	Iran Diabetes Advancement in Research	The American Association of Continuing Medical Education, Sanofi Group Middle East
2011	Epidemiology and Biostatistics	Erasmus Summer Program, Erasmus MC University, Rotterdam, The Netherlands
2011	Recent Developments in Epidemiologic Research	International Epidemiological Association, Edinburgh, Scotland

## Academic Appointments

### Faculty member:

2019 -	Associate Professor	Prevention of Metabolic Disorders Research Center	Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran
2013 -2018	Assistant Professor	Prevention of Metabolic Disorders Research Center	Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran

### Other Affiliated Institutions:

2017 -	Lown Scholar	Department of Global Health and Population	Harvard T.H. Chan School of Public Health, Boston, MA
2017	Visiting Scholar	Department of Biomedical Data Sciences	Leiden University Medical Center (LUMC), The Netherlands
2016 -	Adjunct Professor	Department of Epidemiology	School of Public Health, Iran University of Medical Sciences

### Other Professional Positions:

2016-2017, 2019, 2021	Consultant	World Health Organization	By project
2016-2018	International Advisory board	The Middle East, Mediterranean and Africa Cardiovascular Clinical Trialists (CVCT, MEMA)	Annual meetings
2016-2018	Board member	The Scientific Association for Public Health in Iran (SAPHIR)	Monthly meetings
2013 -	Advisory board	Clinical Trial Center, Tehran University of Medical Sciences	Annual meetings & monthly journal clubs

## Major Administrative Leadership Positions

### Local

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2015-	Director	Department of Biostatistics and Epidemiology, Research Institute for Endocrine Sciences, Tehran
2012-2015	Research manager	Research Deputy, Research Institute for Endocrine Sciences, Tehran

### National

2014-	Secretary-General	Iran Cohort Consortium
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### Committee Service:

#### Local

2012 -	Member, Institutional Review Board committee	Research Institute for Endocrine Sciences
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#### National

2016 -	Member, Council of education and research	Iran Cohort Consortium
2019-2020	Member, Consultant Committee for COVID-19, Tehran, Iran	

### Clinical Practice:

1999-2001	General Practitioner	Emergency unite, Manjil Hospital, Guilan province, Iran
2001-2007	General Practitioner	Urban & rural health centers, Guilan province, Iran

During these years I had the opportunity to acquire firsthand experience of primary and secondary care in a variety of urban and rural settings which helped me to identify the gaps and shaped and informed my future research career.

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## Editorial Activities

- **Ad hoc reviewer of some high-impact journals such as:**
  - The Lancet
  - The Lancet Global Health
  - Annals of Internal Medicine
  - PLOS Medicine
  - American Journal of Cardiology
  - Journal of Clinical Epidemiology
  - BMC journals
  - International Journal of Information Technology & Decision Making

- **Editorial Roles:**

2014 -	Associate editor	International Journal of Endocrinology and Metabolism
2014 -	Associate editor	Iranian Journal of Endocrinology and Metabolism

## Other Review Activities

### National Research Grant / Audit

2019 -	WHO STEPS survey committee	Ad hoc reviewer, National Institute of Health Research
2018 -	Research Improvement office	Ad hoc reviewer, Research Deputy, Ministry of Health
2017 -	Non-Communicable Diseases committee	Ad hoc Member, National Institute for Medical Research Development (NIMAD)

## Honors and Prizes:

2020	<b>Among top 1% Highly cited researchers</b>	Clarivate Analytics, Essential Science Indicators (WOS-ESI)	For cited publications
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2019	A letter of appreciation	Ministry of Health and Medical Education	For an elaborate review and evaluation of some research centers
2017	Honor researcher	Shahid Beheshti University of Medical Sciences, Tehran	Ranked first among assistant professors in the University
2015	Excellent Scientist	Vice-Presidency for Science and Technology, Iran	Among top 100 researchers
2011	Honor researcher	Shahid Beheshti University of Medical Sciences, Tehran	Ranked first among non-faculty members in the University
2009	Honor PhD student	Shahid Beheshti University of Medical Sciences, Tehran	Ranked first among PhD students in the school of public health
2008	Honor PhD student	Shahid Beheshti University of Medical Sciences, Tehran	Ranked first among PhD students in the school of public health
2009	A letter of appreciation	Ministry of Health and Medical Education	For contribution in the construction of Iranian Registry of Clinical Trials as a primary registry of WHO

## National & international Funded Projects

### During the past seven years

- 2021 The assessment national health system readiness/capacity for scaling up and scaling out the NCD services and Evaluate the national progress on integrating NCD services into the PHC system. WHO & Ministry of Health, Co-PI
- 2019 To develop a pilot plan for IraPEN program and a no-lab prediction model for assessment of NCDs risk factors, WHO & Ministry of Health, PI
- 2018 Cost-effectiveness of the risk-based prevention of cardiovascular diseases in primary health care: National Institute for Medical Research Development (NIMAD), Ministry of Health, Iran, and Harvard T.H. Chan School of Public Health, PI
- 2018 To study the trend of risk for cardiovascular diseases during the past decade and estimate the incidence of these diseases during the next decade in Iran, National Institute for Medical Research Development (NIMAD), PI
- 2018 Validation of the American Diabetes Association (ADA) diabetes screening score in an Iranian population: Its diagnostic and prognostic power, National Institute for Medical Research Development (NIMAD), PI
- 2017 Technical support for implementation of adapted tools in demonstration site of HEART initiatives, WHO & Ministry of Health, PI
- 2016 Updating CVD risk scoring for implementation in primary health care based on updated CVD risk score, WHO recommendations and country circumstances, WHO & Ministry of Health, PI
- 2015 Comprehensive Monitoring and Evaluation of Screening Program for Congenital Hypothyroidism, Ministry of Health & Research Institute for Endocrine Sciences, Co-PI

### Current

- 2022 In line with IraPEN, piloting improvement of care quality and coverage of diabetes, hypertension, and high-risk people for cardiovascular disease in a demonstration site. WHO & Ministry of Health, PI

## Teaching and Training

### Teaching of Students in Academic Courses:

2016-	Clinical prediction models, for PhD students in epidemiology	Department of Epidemiology, Iran University of Medical Sciences, Tehran
2017-	Advanced research methodology, for PhD by research students and physician-scientists	Shahid Beheshti University of Medical Sciences, Tehran

### Formal Teaching of Residents and Fellows:

2015-	Research Methodology for residents and fellows	Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran
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### Research Supervision of Students and Fellows:

2021	Development of coronary heart disease and stroke risk score model in patients with type 2 diabetes identified in the national diabetes program	Co-supervisor, PhD students, Department of Epidemiology, Iran University of Medical Sciences, Tehran
2020	Effect of lifestyle modification on pre-diabetes regression to normoglycemia and progression to diabetes	Supervisor, Endocrinology Fellow, Research Institute for Endocrine Sciences, Tehran
2019 -	Determination of trajectory of metabolic risk factors and biomarkers in patients with prediabetes prior to the development of diabetes	Co-supervisor, Endocrinology Fellow, Research Institute for Endocrine Sciences, Tehran
2019 -	The association of insulin resistance and beta-cell dysfunction with prediabetes and determination of a cut-off point for HOMA-IR and HOMA-B to predict prediabetes	Co-supervisor, Endocrinology Fellow, Research Institute for Endocrine Sciences, Tehran
2019 -	Application of dynamic prediction models for three-year incident dysglycemia and type 2 diabetes using Joint modeling of longitudinal and time-to-event data in population-based cohorts	Co-supervisor, PhD student, Research Institute for Endocrine Sciences, Tehran
2019 -	The risk threshold for initiating cardiovascular preventive therapy based on the evidence-based decision-making model	Co-supervisor, PhD students, Department of Epidemiology, Iran University of Medical Sciences, Tehran
2018 -	A cost-effectiveness analysis of risk-based intervention for the prevention of cardiovascular disease in IraPEN: A pilot study in Iran	Co-supervisor, MS student, University of Oslo, Norway
2017 -	The net benefit of using Globorisk risk score to identify high-risk individuals for cardiovascular diseases	Co-supervisor, PhD students, Department of Epidemiology, Iran University of Medical Sciences, Tehran

2016 -	Effectiveness of lifestyle intervention programs for type 2 diabetes prevention in resource-constrained settings	Co-supervisor, PhD student, Non-Communicable Disease Control Unit (NCDU), University of Melbourne, Australia
2016-2018	Comprehensive Monitoring and Evaluation of Screening Program for Congenital Hypothyroidism	Co-supervisor, PhD student, Research Institute for Endocrine Sciences, Tehran
2016-2018	Determining a national risk function to predict cardiovascular diseases mortality using the pooled data of population-based cohorts and surveys of Iran	Co-supervisor, PhD student, Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences, Tehran
2015-2017	Assessment of lifestyle pattern among Iranian population using Self-organizing map and Latent class cluster analysis methods and its association with blood pressure	Co-supervisor, PhD student, Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences, Tehran
2015-2016	The latent classes of metabolic syndrome components and the effect of the intervention program on changing these classes over time	Supervisor, MS student, Department of Epidemiology, Shahid Beheshti University University of Medical Sciences, Tehran

## Invited Presentations

### Local &

### National

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2012-2018 At least 10 local & national invited talks regarding cohort studies, prediction models and cardiometabolic risk factors in Iran

### International

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2016 The situation of cardiovascular diseases in Africa and Middle East. Middle East, Mediterranean and Africa Cardiovascular Clinical Trialists (CVCT, MEMA) Forum. Abu Dhabi, United Arab Emirates

2017 WHO Package of Essential Noncommunicable (PEN) disease interventions for primary health care. Middle East, Mediterranean and Africa Cardiovascular Clinical Trialists (CVCT, MEMA) Forum. Cairo, Egypt (However, I was unable to attend because of visa)

2018 Data analysis of Cohort Studies, Department of Global Health and Population, Harvard T.H. Chan School of Public Health, US

2019 Metabolic Health in the Middle East and North Africa, Mediterranean and Africa Cardiovascular Clinical Trialists (CVCT, MEMA) Forum. Cairo, Egypt

2021 Implementing Appropriate National CVD Risk Prediction Models for clinical and Public Use, Guest Lecture, Indonesian Medical Education and Research Institute

## Publications in Peer-Reviewed Journals

The list of my publications can be found in the scientometrics system of the Iranian Universities:

[https://isid.research.ac.ir/Davood\\_Khalili](https://isid.research.ac.ir/Davood_Khalili)

It also can be reached at the Harvard Catalyst Profiles:

<https://connects.catalyst.harvard.edu/Profiles/display/Person/159440>

## Book Chapters (in Persian)

1. **Khalili D**, Azizi F, Sadeghi-Hasanabadi A. An Introduction to Non-Communicable Diseases. In Azizi F, Janghorbani M, Hatami H. Epidemiology and Control of Common Diseases in Iran, Forth edition. Tehran: Khosravi press, 2017
2. Delshad H, **Khalili D**, Azizi F. Diabetes. In Azizi F, Janghorbani M, Hatami H. Epidemiology and Control of Common Diseases in Iran, Forth edition. Tehran: Khosravi press, 2017
3. **Khalili D**, Hadaegh F. Hypertension. In Yavari P. Epidemiology Textbook of Prevalent Diseases in Iran. Volume 2 – Noncommunicable Diseases. Tehran: Gapnashr, 2014
4. Delshad H, **Khalili D**. Diabetes. In Yavari P. Epidemiology textbook of Prevalent Diseases in Iran. Volume 2 – Noncommunicable Diseases. Tehran: Gapnashr, 2014
5. Hosseinpanah F, Barzin M, **Khalili D**. Obesity. In Yavari P. Epidemiology textbook of Prevalent Diseases in Iran. Volume 2 – Noncommunicable Diseases. Tehran: Gapnashr, 2014

## International Conference Presentations

2019

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Long-term effectiveness of a community-wide lifestyle intervention on the prevention of type 2 diabetes in Iran. *IDF Congress 2019, Busan, Korea*

2019

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Performance of stepwise screening methods in identifying those at high risk of type 2 diabetes in an Iranian population. *IDF Congress 2019, Busan, Korea*

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- 2019  
The validity and performance of the ADA screening tool for identifying undiagnosed type 2 diabetes in Iran. *IDF Congress 2019, Busan, Korea*
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- 2018  
Cost-Sensitive Measures Vs. Youden`s Index to Determine an Optimal Threshold for Biomarkers: A Practical Approach to Define Pre-Diabetes. *SMDM 17th Biennial European Conference, Leiden, The Netherlands. (Oral)*
- 2018  
Score Risk Function to Predict Cardiovascular Disease Mortality in a Population Outside of Europe: Performance and Challenges. *SMDM 17th Biennial European Conference, Leiden, The Netherlands. (Oral)*
- 2018  
Consistency between Score and Globorisk Prediction Models for Cardiovascular Disease Mortality in a Western Asian Country. *SMDM 17th Biennial European Conference, Leiden, The Netherlands.*
- 2018  
Validation, Calibration, and Clinical Usefulness of FINDRISC, AUSDRISK, ADA Risk Scores for Predicting 5-year Incidence of Diagnosed Type 2 Diabetes in a Middle Eastern Population; the Tehran Lipid and Glucose study. *SMDM 17th Biennial European Conference, Leiden, The Netherlands.*
- 2016  
A Novel Approach to Determine Potential Predictors of Diabetes Among Pre-Diabetic Women: A Population-Based Cohort Study. *17th International Congress of Endocrinology, Beijing, China.*
- 2016  
Incorporating Clinical Consequences to Screen for Pre-Diabetes: A Cost-Sensitive Cut-Off for Fasting Plasma Glucose. *17th International Congress of Endocrinology, Beijing, China.*
- 2016  
Cardiometabolic Mortality Rate Across Countries Is More Dependent on The Prevalence of Diabetes in Men Than on This Prevalence in Women: An Ecological Study. *17th International Congress of Endocrinology, Beijing, China.*
- 2016  
A New Approach to Metabolic Syndrome Components Using Latent Class Analysis (LCA): Dysglycemia Apart From Other Components. *17th International Congress of Endocrinology, Beijing, China.*
- 2016  
The Number Needed to Treat for Intensive Statin Therapy in Diabetic Men and Women According to 2013 ACC/AHA Guideline. *17th International Congress of Endocrinology, Beijing, China.*
- 2015  
A Systematic Approach to Variable Selection Methods Used In Data-Mining: A Practice in Epidemiology. *European Congress in Epidemiology, Maastricht, The Netherlands. (Oral)*

- 2015  
Negative Interaction Between Chronic Kidney Disease and Metabolic Syndrome for Coronary Heart Disease Incidence in Non-Obese Individuals: Risk Factors Paradox. *European Congress in Epidemiology, Maastricht, The Netherlands.*
- 2015  
Risk of Coronary Heart Events in Symptomatic and Asymptomatic Individuals: 10 Years Follow-Up in Tehran Lipid and Glucose Study (TLGS). *European Congress in Epidemiology, Maastricht, The Netherland.*
- 2015  
Incidence of Recurrent CHD and the Impact of Obesity Paradox in a Population-Based Study: Tehran Lipid and Glucose Study. *European Congress in Epidemiology, Maastricht, The Netherlands.*
- 2015  
Application of Net Benefit Fraction to Select Cut-Off for Medical Markers. *European Congress in Epidemiology, Maastricht, The Netherlands.*
- 2014  
The Application of Risk Estimation in Guidelines for Statin Therapy. *10th International Congress of Endocrine Disorders, Tehran, Iran. (Oral)*
- 2011  
Net Benefit Fraction as a modified Population Attributable Fraction to evaluate the clinical performance of a risk function. *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2011  
Clinical usefulness of Framingham Cardiovascular Risk Profile during a 10-year follow up in Iran. *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2011  
An approach to compare the importance of different cardiovascular exposures as continuous variables. *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2011  
Rose angina vs silent ischemia in prediction of coronary heart disease: Tehran Lipid and Glucose Study. *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2011  
Different methods to calculate population attributable fraction of risk factors for cardiovascular diseases: Tehran Lipid and Glucose Study (TLGS). *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2011  
Estimating the attributable burden of cardiovascular disease following reducing the prevalence of diabetes to theoretical and feasible minimum risk level. *19th World Congress of Epidemiology, Edinburgh, Scotland.*
- 2009  
Glucose intolerance and risk of cardiovascular disease in Iranian men and women. *the 8th International Congress on Endocrine Disorders, Tehran, Iran. (Oral)*

2009

Triglyceride/HDL-cholesterol ratio is an independent predictor for coronary heart disease in Iranian men population. *3rd International Congress on Prediabetes and the Metabolic Syndrome, Nice, France.*

## **Research Interests**

- Prevention and control of Non-Communicable Diseases mainly Cardiovascular Diseases and Diabetes
- Research methodology for clinical and public health research
- Clinical prediction models