



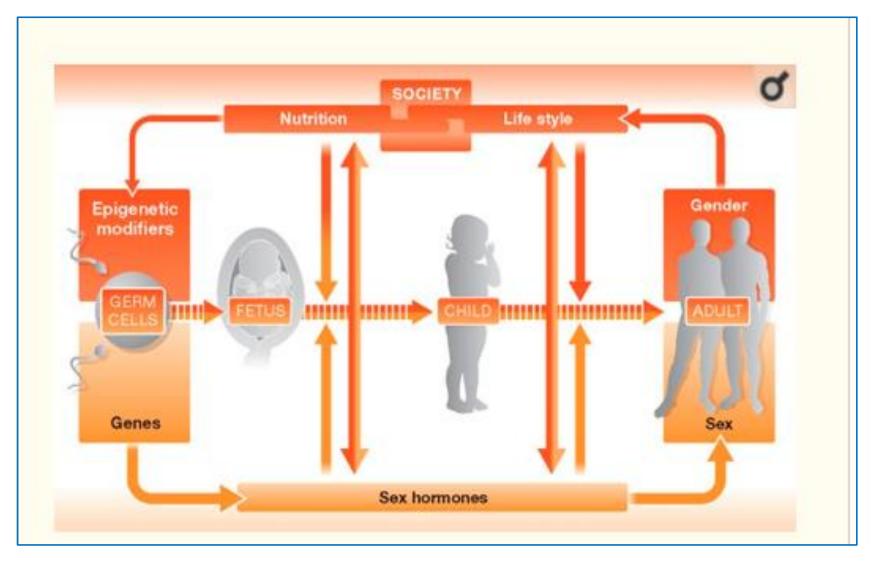
WOMEN'S HEART CLINIC



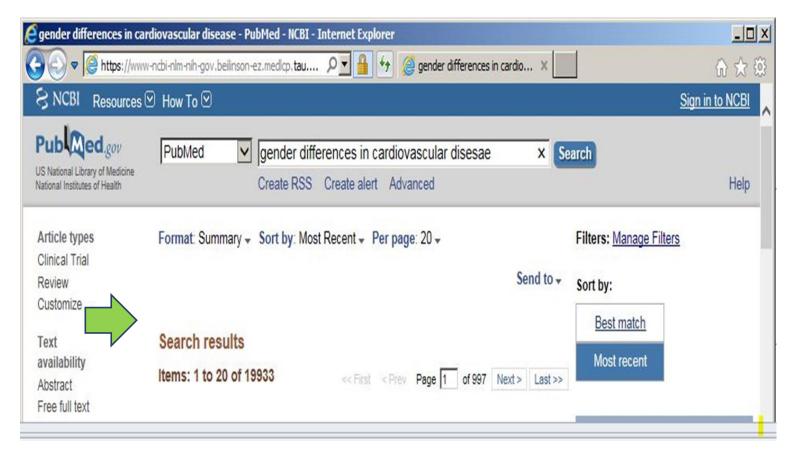
Avital Porter, MD

Head of The Cardiology Unit, and The Women's Heart Clinic, Rabin Medical Center- Beilinson and the Tel- Aviv University

COMPLEX INTERDEPENDENCY OF SEX AND GENDER IN THE HUMAN



Ragitz Zagrosek ,EMBO Rep. 2012 Jul; 13(7): 596-603



Despite the wealth of data on differences, medical practice does not sufficiently take sex/gender into account in diagnosis, treatment or disease management

העולם מתקדם לרפואה מגדרית, ומה קורה במשרד הבריאות?

נכתב ע"י: רוחמה גמרמן 14 בינואר 2016 תגיות: איבות ונגישות רפואה, נשים



ועדה: הוועדה לקידום מעמד האישה ולשוויון מגדרי

WHO



Fact sheet

The Global Health 50/50 Report

How gender-responsive are the world's most influential global health organisations?

First report



Gender equality in health means that women and men, across the life-course and in all their diversity, have the same conditions and opportunities to realize their full rights and potential to be healthy, contribute to health development and benefit from the results. 11

WHO Gender fact sheet

NO SENSE!

- It doesn't make sense that medical <u>research</u> is performed mostly on males and then are applied to both men and women in the clinical setting.
- For <u>health education</u>, we need to consider each patient's uniqueness and that means first and foremost taking into consideration how sex and gender impact health and wellness.
- The prevention, management and therapeutic treatment of many common diseases <u>does not</u> <u>reflect</u> the most obvious and most important risk factors for the patient: sex and gender

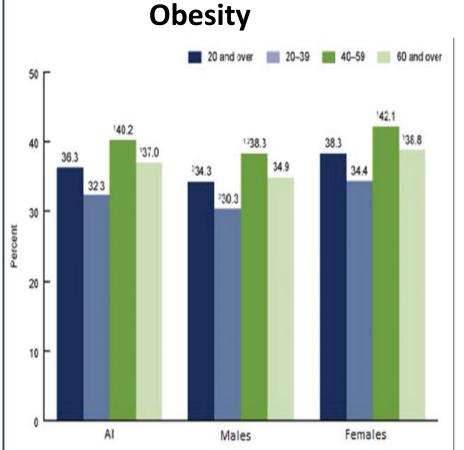
GAPS AND THE MISSING

THERE IS NO DOUBT

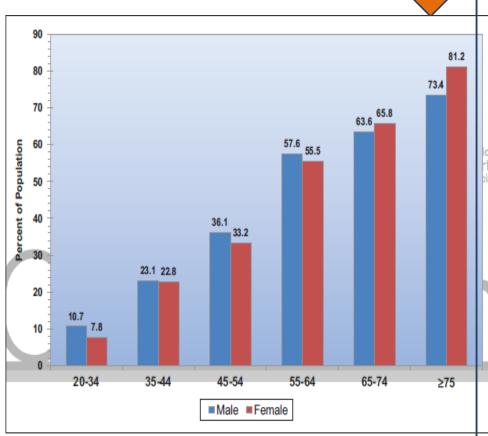
- Cardiovascular risk assessment in women(women's specific risk factors)
- Diagnosis of women's- specific patterns of ischemic Heart Disease
- Diagnosis treatments ,and outcomes of acute coronary syndromes
- Psycho-social issues

The CV health of women is strongly affected by sex-specific factors, including hormonal and metabolic disorders, pregnancy-related adverse CV outcomes, menopausal status, and mental health.

TRADITIONAL RISK FACTORS-SAME BUT ARE NOT THE SAME







Heart Disease and Stroke Statistics—2018 Update Circulation. 2018;137

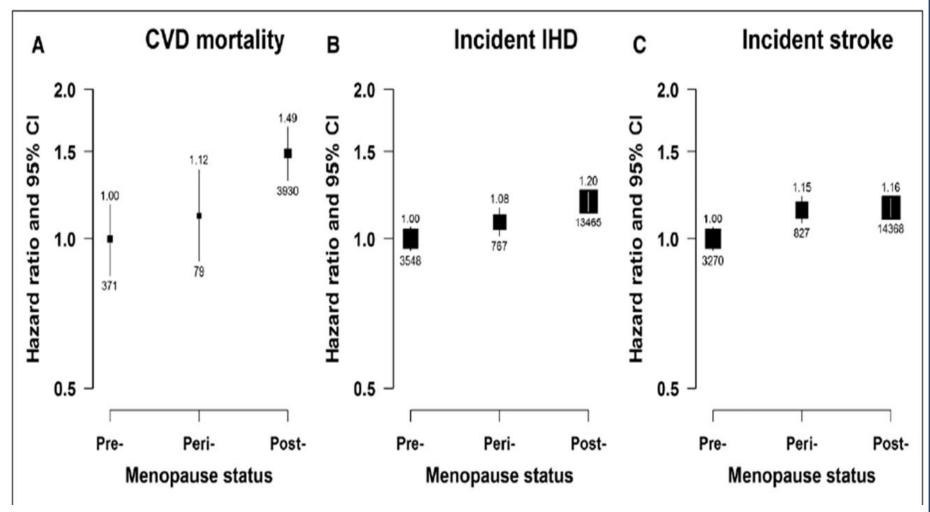
Traditional Risk Factors **Emerging Risk Factors** Menopause results in #TG, #LDL, # HDL Women are less likely to achieve lipid goals (OR 0.50) [97] SLE: 3-fold higher risk of IHD events [18] Hyperlipidemia Rheumatoid arthritis: elevates IHD risk as much as DM [18] Autoimmune 80% of women ≥75 have HTN Hypertension Dz Only 29% have adequate BP control [22,98] Extractors in W Gestational diabetes 4-fold higher risk of DM 59% higher risk of MI[17] Diabetes Diabetes confers a 45% higher risk of IHD[16] Pregnancy Hypertension in pregnancy: Gestational HTN and preclampsia: **Smoking** Smoking confers a 25% higher risk of IHD[96] 3-fold higher risk of IHD[18] Menopause Early menopause confers 4.5 Obesity Obesity confers a higher risk of IHD in women times higher risk of IHD[99] (64% vs 46%)[94] Inactivity Depression Women have a higher prevalence of inactivity Depression is more prevalent in women Family Hx 25% of US women get no regular physical activity[95] Doubles the risk of IHDt161 Family History of premature atherosclerosis confers a 2 fold higher risk of IHD in men and women[100]

PREGNANCY COMPLICATIONS AND CARDIOVASCULAR DISEASE DEATH: FIFTY-YEAR FOLLOW-UP

Table 1. Associations of pregnancy complications with CVD death.

	Unadjusted			Adju	Adjusted for Covariates*		
	HR [†]	95% CI [‡]		HR	HR 95% C		
ssociated		Lower	Upper		Lower	Upper	
Early-onset pre-eclampsia§	6.7	2.74	16.20	3.6	1.04	12.19	
Pre-existing hypertension	4.6	3.32	6.41	3.5	2.35	5.07	
Glycosuria	4.3	1.62	11.61	4.2	1.33	13.10	
Late-onset pre-eclampsia	2.5	1.36	3.87	2.0	1.18	3.46	
Preterm delivery [§]	2.5	1.82	3.47	2.1	1.40	3.01	
Hemoglobin decline	1.8	1.19	2.80	1.7	1.12	2.70	
SGA delivery ^{§#}	1.8	1.24	2.55	1.6	1.02	2.42	
Gestational hypertension**							

MENOPAUSE(A UNIVERSAL RISK FACTOR)



Circ Cardiovasc Qual Outcomes. 2017;10:e004235

SURVIVORS OF BREAST CANCER

The Framingham risk score underestimates the risk of cardiovascular events in the HER2-positive breast cancer population

Current Oncology, Vol. 24, No. 5, October 2017

2 We Have a lot of survivors...

Relative survival rates for patients with early-stage breast cancer are high, with 89% 5-year survival, 83% 10-year survival, and 78% 15-year survival

Mental Stress-Induced-Myocardial Ischemia in Young Patients With Recent Myocardial Infarction

Sex Differences and Mechanisms

Main findings:

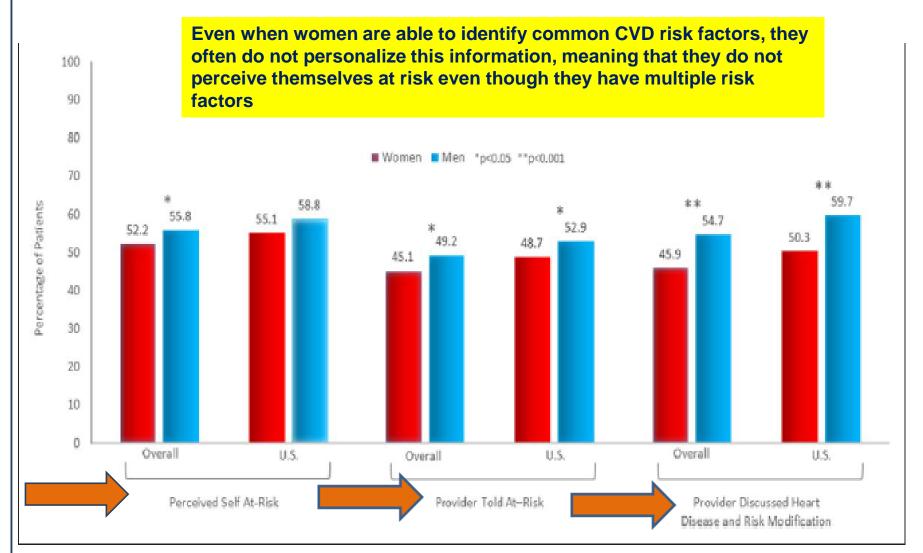
- > young women who have survived a recent myocardial infarction have a 2-fold likelihood of developing ischemia with mental stress compared with men of a similar age.
- Microvascular dysfunction and peripheral vasoconstriction during mental stress were related to mental stress-induced ischemia among women but not among men

Circulation. 2018;137:794-805.

SIMPLE TRUTH

- ➤ Because women have been largely ignored as a specific group, their awareness of their risk of this often-preventable disease has suffered.
- Only 55 percent of women realize heart disease is their No. 1 killer
- Less than half know what are considered healthy levels for cardiovascular risk factors like blood pressure and cholesterol

PERCEPTIONS AND DISCUSSIONS OF RISK BY SEX



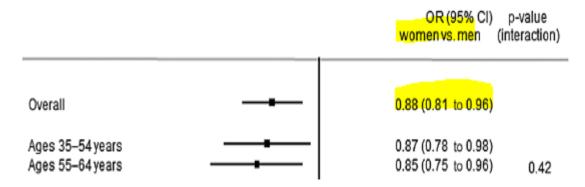
Circ Cardiovasc Qual Outcomes. 2018;11:e004437

ISN'T IT THE JOB OF PRIMARY CARE PHYSICIANS?



Misconception

Gender inequalities in cardiovascular risk factor assessment and management in primary healthcare



Multiple-adjusted female to male ORs and 95% CIs for the assessment of cardiovascular risk factors. Women attending primary healthcare services were less likely than men to have risk factors measured and recorded

Hyun KK, et al. Heart 2017;103:500-506

Australia-53K patients, 58% W

WOMEN'S SPECIFIC CARDIOVASCULAR HEALTH PROMOTION - CAN IT MAKE A CHANGE?

Red Alert on Women's Hearts

Women and Cardiovascular Research in Europe

November 2009

European Heart Health Strategy EuroHeart Project, Work Package 6 Women and Cardiovascular Diseases

Achievements of Go Red

- More than 2 million women have learned their personal risk of developing heart disease
- More than 200,000 healthcare provider offices have received critical patient information on women and heart disease
- → °91 percent of women involved in Go Red For Women visited their doctor in the last 12 months (compared to 73 percent of all U.S. women).
- °64 percent follow a regular exercise routine.
- °84 percent have talked to friends about their heart health.
- •90 percent have had their blood pressure checked in the last year.
- •75 percent have had their cholesterol checked in the last year



EVEN THE GUIDELINES ...

2016 European Guidelines on cardiovascular disease prevention in clinical practice

Recommendation for assessment of psychosocial risk factors

Recommendation	Class	Level	Ref
Psychosocial risk factor assessment, using clinical interview or standardized questionnaires, should be considered to identify possible barriers to lifestyle change or adherence to medication in individuals at high CVD risk or with established CVD.	lla	В	90–92

European Heart Journal doi:10.1093/eurheartj/ehw106

Recommendations for female-specific conditions

Recommendations	Classa	Level⁵	Refc
In women with a history of pre- eclampsia and/or pregnancy-induced hypertension, periodic screening for hypertension and DM should be considered.	lla	В	194–197
In women with a history of polycystic ovary syndrome or gestational DM, periodic screening for DM should be considered.	lla	В	198–201
In women with a history of giving premature birth, periodic screening for hypertension and DM may be considered.	Шь	В	202, 203

Screening for Preeclampsia
US Preventive Services Task Force Recommendation Statement
Where is the Best

US Preventive Services Task Force

Article Information

JAMA. 2017;317(16):1661-1667. doi:10.1001/jama.2017.3439



MULTIDISCIPLINARY APPROACH

Circulation



AHA/ACOG PRESIDENTIAL ADVISORY

Promoting Risk Identification and Reduction of Cardiovascular Disease in Women Through Collaboration With Obstetricians and Gynecologists

A Presidential Advisory From the American Heart Association and the American College of Obstetricians and Gynecologists

Table. Female Sex and Cardiovascular Disease Risk Factors

Female-Specific CVD Risk Factors	Female-Predominant CVD Risk Factors
Adverse pregnancy outcomes	Autoimmune inflammatory diseases
Pregnancy-related hypertension	Rheumatoid arthritis
Gestational hypertension	Systemic lupus erythematosus
Preeclampsia	Scleroderma
Eclampsia	
Gestational diabetes mellitus	
Preterm delivery	
Low birth weight for gestational age	
Polycystic ovarian syndrome	Breast cancer
Functional hypothalamic amenorrhea	
Reproductive hormones	
Oral contraceptives	
Hormone replacement	

Circulation. 2018;137:00-00

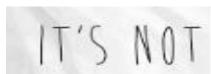
ONLY PART OF THE SOLUTION

The Maternal Health Clinic: A New Window of Opportunity for Early Heart Disease Risk Screening and Intervention for Women with Pregnancy Complications

J Obstet Gynaecol Can 2013;35(9):831–839

The maternal health clinic: an initiative for cardiovascular risk identification in women with pregnancy-related complications

Am J Obstet Gynecol 2014;210:x-Xi



THE WHOLE STORY

21ST CENTURY WOMEN'S HEALTH: REFINING WITH PRECISION

la a	Description.
ltem	Description
Research	
Foundational terminology	Use sex and gender terminology appropriately
Research platforms	Educate researchers in methods for integrating sex and gender throughout the research pipeline
Institutional review board policies and procedures	Educate institutional review boards regarding sex and gender in research
Policy in data reporting	Require reporting and analysis of data by sex or gender in scientific and clinical papers
Education	
Translational education	Incorporate results from clinically meaningful research into health professionals' education
Innovations in medical education	Embed concepts of sex- and gender-based medicine into a platform for interprofessional education
Accreditation requirements	Require accrediting bodies to incorporate principles of sex and gender into medical school curricula
Clinical care	
Licensing	Incorporate sex and gender content into state and national licensing examinations
Treatment	Educate patients about whether treatment outcomes are applicable to both sexes/genders
Evidence-based medicine	Apply sex and gender throughout the patient care continuum

Mayo Clin Proc. n June 2016;91(6):695-700

SOLUTIONS TO EQUITABLE CARE FOR WOMEN



Circ Cardiovasc Qual Outcomes. 2018;11:e004437

THE IMPORTANCE OF DEDICATED HEART CENTERS FOR WOMEN

Personalized sex- and gender-specific care of CVD conditions that predominantly, (exclusively), affect women.

1) Prevention of CVD:

- Pregnancy outcomes,
- hormonal changes,
- breast cancer (active disease and survivors),
- autoimmune disorders.
- Psychological and social issues
- 2) Diagnosis and treatment of women-specific

Women's Heart Clinics offer unique settings in which comprehensive CVD care and education are delivered.



- Specialized centers of focused cardiovascular care for women, are uniquely capable of identifying, characterizing, treating, and preventing heart disease in women, while also addressing important research gaps and developing new diagnostic tools and treatments.
- Women's Heart Clinics in their holistic interdisciplinary approach have the potential to help correct gender inequalities!!

FOCUSED CARDIOVASCULAR CARE FOR WOMEN: THE NEED AND ROLE IN CLINICAL PRACTICE

The medical community in general, and <u>women</u> <u>specifically</u>, lack information on cardiovascular health and disease in women, making it less likely that they receive guidance on preventive strategies and referral for needed diagnostic testing.



Women's Heart Clinics offer unique settings in which to deliver comprehensive Cardiovascular care and education, ensuring appropriate diagnostic testing, while monitoring effectiveness of treatment.

IS IT COST-EFFECTIVE?



Pregnancy Hypertens. 2014 Oct;4(4):264-70. doi: 10.1016/j.preghy.2014.06.002. Epub 2014 Jun 21.

Cost-effectiveness analysis of cardiovascular risk factor screening in women who experienced hypertensive pregnancy disorders at term.

Development of a model to assess the cost-effectiveness of gestational diabetes mellitus screening and lifestyle change for the prevention of type 2 diabetes mellitus

International Journal of Gynecology & Obstetrics
Volume 115, Supplement 1, November 2011, Pages S20-S25

Trials. 2013 Oct 17;14:339. doi: 10.1186/1745-6215-14-339.

Mothers After Gestational Diabetes in Australia Diabetes Prevention Program (MAGDA-DPP) post-natal intervention: study protocol for a randomized controlled trial.



The current findings of cost-savings or favorable cost-effectiveness are robust!

Its goes well with PROMS

- Health services are under constant pressure to be more patient centered
- patient's unique goals and preferences to produce a better outcome



Life style

We Put You at the Center of Care



Psychology

מרפאה לבריאות לב האישה





מרפאת לב האישה



שמירה על בריאות הלב לאחר הפסקת המחזור החודשי

הכרת המספרים שלך חשובה לשמירה על בריאות הלב

מרפאת לב האישה

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דעי מה

רים חולים בילינחוו

גישה - מולטידיסציפלינארית סיעוד, דיאטה, וטיפול פסיכולוגי - 5 פגישות בעבור טופס 17 אחד





RESULTS FROM & MULTIDISCIPLINARY INTEGRATIVE APPROACH FOR CARDIOVASCULAR DISEASE PREVENTION AND MANAGEMENT AMONG WOMEN: A LARGE SINGLE CENTER WOMEN'S HEALTH CLINIC REPORT

- Period: January 2014 to July 2017, 661 women, The mean
- Short-term Psychological Intervention in the management of psychological Short-term Psychological Intervention in the management of psychological Intervention in the psychological Intervention in the management of psychological Intervention in the management of psycholo Noa Dalal ,Irit Heruti ,Yishai Manor, Adi Stansill, Ilana Gezel, Ran Kornowski, Avital Among Women Referred to the Women's Heart Clinic.
 - porter osclerosis established by imaging or angiography
 - 273 women underwent endothelial function test. 43% of the tests were abnormal



Does your hospital have a Women's Heart Clinic yet? If not, why not?

- The AHA in its statements concluded that heart disease in women is essentially under-diagnosed, and then undertreated even when appropriately diagnosed compared to our male counterparts
- ➤ Although the concept of Women's Heart Clinics is still met with hesitation from some cardiologists,

















IS WOMEN'S HEART CLINICS & MUST?

