



# Project brochure

# GenCAD

## Background and Aims

The GenCAD project aimed to improve the knowledge and awareness of sex and gender differences in chronic diseases, using coronary artery disease (CAD) as an example to highlight differences between women and men in prevention and treatment in European countries. More specifically, it aimed at:

- Improving knowledge: GenCAD assembled existing knowledge on gender differences in CAD, and analysed the inclusion of gender aspects in databases and policies.
- Improving awareness: GenCAD conducted a study on the awareness of health care professionals and the general population and used this knowledge to develop factsheets on gender in CAD to improve knowledge and awareness in Europe.
- Dissemination: GenCAD communicated facts and factsheets at two conferences, in the internet and by other ways of dissemination in order to close the gaps between gender knowledge and translation to the medical practitioners, policy makers and the general public in an exemplary field.

## Methods

GenCAD developed a methodological approach for the improvement of knowledge and awareness in the field of gender related chronic diseases in the European Member States that could be used as a template for other chronic diseases.

GenCAD first assembled in a state of the art study the existing knowledge on gender differences in coronary artery disease (CAD), based on the published literature in the last 15 years from across the world. It searched published literature in the areas of prevention and health promotion, epidemiology, disease mechanisms, clinical symptoms and diagnosis, management, as well as outcomes, using CAD as a paradigm for other chronic diseases.

An analysis in existing European databases aimed to test to which degree EU registries are sufficient to analyse gender differences in CAD. GenCAD analysed public databases from EU Member States for CAD morbidity and mortality, connected the data to known risk factors and socioeconomic parameters and checked the data for their sensitivity to assess sex and gender differences.

To obtain an overview on gender in EU health policies, GENCAD examined the current political climate of existing policies on gender and CAD by contacting governmental healthcare departments, national medical and public health societies, funding agencies, active researchers, and a desk-based internet search.

To assess the need for information on sex and gender differences in CAD, an awareness study was undertaken with two surveys - one for the general public and another for healthcare professionals.

Based on the sex and gender differences identified in the state of the art and awareness study, factsheets were developed for both health care professionals and the general public, integrating feedback from consortium partners and GenCAD's extended networks. They have been validated with groups of experts for general agreement and finalized in discussions with DG Health and Food Safety and can be found under: <http://gencad.eu> For dissemination, 2 GENCAD conferences were organized, symposiums and presentations of the project at other meetings, newsletter, homepages of medical societies, Facebook and Twitter actions were used. A homepage hosted by DG Health and Food Safety has been developed where the main results are published.

Finally, GenCAD is also communicating the project in the social media to reach targeted audience. ( targeted audience ) We will target relevant groups in each member state, including general public in different age groups, or healthcare professionals, among others. GenCAD provides an approach that could be transferred to other disciplines and diseases in the future.

## **Results**

### State of the art study

Approximately 1000 articles were retrieved and reviewed in detail. Significant gender differences that need consideration were found in all fields. For example, diabetes and smoking have a greater weight as risk factors in women than in men. In addition, further risk factors are emerging: mental health, socioeconomic status, autoimmune and inflammatory diseases, and disturbances of sex hormones and sexual function. Men develop earlier and more easily atherosclerosis of large coronary arteries, women are frequently affected by disturbances of small vessel function. Lack of awareness in women and their doctors is still a major problem that limits fast reaction in case of acute coronary syndromes and willingness to take action in prevention. Many cardiovascular drugs act differently in women and men. More gender differences were found in diagnosis, in treatment responses and outcomes.

### Database analysis

Most databases have a limited sensitivity for analysing sex and gender differences. Reasons may be that they have a rather low cut-off point for age at inclusion, and variables such as smoking, diabetes, hypertension, hyperlipidaemia, alcohol use, were not always broken down to sex. A true gender score, reflecting a psychosocial construct for gender was not found in any database. Gender related covariates, pregnancy-related complications, hormonal status, and sexual function are frequently not included in the databases. Experts agree that they would be willing to study gender-related effects, but not enough data are collected in many studies due to limited awareness and/or resources.

### Policy analysis

Overall, 273 policies and guidelines were identified across the 27 EU Member States that made specific reference to gender, either as part of their national gender equality legislation or in relation to cardiovascular disease, but few specific recommendations were found. Thus, the overall conclusions from this analysis are that for all EU Member States there is a policy environment that should ensure gender equality and an absence of sex discrimination and that there is a growing body of recommendations from leading health organisations supporting more gender sensitive health care. At the document level, many policies refer to the clinical practice guidelines of the European Society of Cardiology, making their role in ensuring gender sensitive care very important.

### Needs assessment

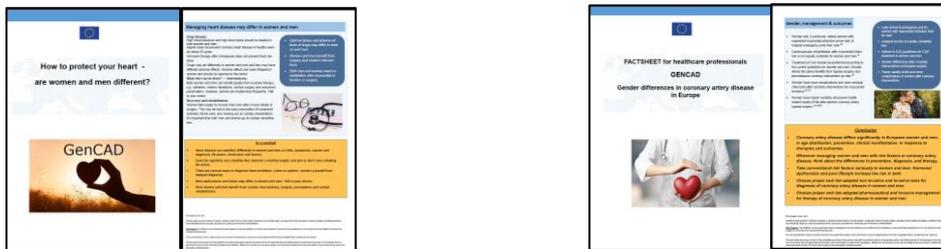
The general public awareness study in 6 EU languages for selected sample countries revealed still important deficits in knowledge and awareness of gender aspects in risk factors, disease manifestations, needs for action and information on disease outcomes.

The survey of health care professionals in all European countries also showed important deficits in knowledge on gender specific disease manifestations, diagnostic and therapeutic approaches. More gender sensitive information campaigns for physicians and the general public are necessary and the internet emerges as leading medium.

## Factsheets

Factsheets in 24 languages assemble the knowledge on gender differences in prevention, clinical manifestation, disease mechanisms, diagnosis, response to therapies and outcomes for the general public and health care professionals.

Full versions in 24 official MS languages can be found under [https://ec.europa.eu/health/social\\_determinants/projects/ep\\_funded\\_projects\\_en#fragment3](https://ec.europa.eu/health/social_determinants/projects/ep_funded_projects_en#fragment3)



## Dissemination

At each of 2 conferences, approximately 80 participants, 2 from each Member States, discussed the gender differences in the published literature, their presentation in databases and in policies and finally the awareness study and factsheets.

For dissemination of the project results to a broader audience in a sustainable manner, project information and factsheets are available in all EU official languages at DG Health and Food Safety homepage:

[https://ec.europa.eu/health/social\\_determinants/projects/ep\\_funded\\_projects\\_en#fragment3](https://ec.europa.eu/health/social_determinants/projects/ep_funded_projects_en#fragment3)

Furthermore, the factsheets and project results are announced and communicated at homepages of the partners and medical societies, EUPHA, ASPHER, European Heart Net, CPME, International/Italian/Austrian/Dutch/Japanese/ German Society of Gender Medicine and others. They have also been presented and will be discussed at major European congresses: EUPHA 2015, IGM 2015, OSSD 2016, ECIM 2017, EUPHA 2017, Europeans student conference 2017 and 2018, OSSD 2017, World Health summit 2017 and 2018, EUROPREVENT 2018, IGM 2019; Gender Summit 2017 and 2018, and will be presented at many others.

Newsletters containing short press releases along with project details were sent to a broad spectrum of target groups, including all identified European stakeholders in gender medicine. All partners contribute to reach their specific target audiences and in the lay media by local and national newspapers.

As social media has a huge potential to reach out to the general public and to healthcare and medical organizations along with their followers, we are using tweets of the factsheet statements and established a Facebook fan page. We are also running targeted advert campaigns using Facebook, twitter and YouTube to reach each member state and address the local audience, focusing on specific groups.

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GenCAD project partners: Institute of Gender in Medicine, Berlin School of Public Health, Andalusian School of Public Health, European Public Health Association, Institute of Health and Wellbeing, Radboud University Medical Centre, European Association for Cardiovascular Prevention & Rehabilitation.

**Pilot Projects** is an initiative „of an experimental nature designed to test the feasibility of an action and its usefulness“ and permits appropriations for it to be entered in the EU budget for more than two consecutive financial years.

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