

# Aragon Workers Health Study

<https://neurodegenerationresearch.eu/cohort/aragon-workers-health-study/>

## Cohort Acronym

AWHS

## Cohort type

General population-based cohort

## Disease

## Participant type

No diagnosis

## Profile

Recruitment Period Feb 2009 - Dec 2012

Sample size at start or planned sample size if still recruiting 5688

Estimated Current Sample Size 5,000 to 9,999

Age at Recruitment >18

Gender Male and Female

Abstract

AWHS is a prospective, longitudinal cohort study based on the annual health exams of 5,688 workers of the General Motors Spain automobile assembly plant located in Figueruelas (Zaragoza, Spain). The study was designed to evaluate the trajectories of traditional and emergent cardiovascular diseases (CVD) risk factors (overweight, obesity, high blood pressure, diabetes, smoking, dietary habits or sedentary lifestyle), and their association with metabolic abnormalities and the prevalence and progression of subclinical atherosclerosis in a population of middle-aged men and women in Spain.

The specific aims of AWHS are:

1. To establish the research infrastructure required for a longitudinal cohort study, including setting up a biobank of repeated biological samples to conduct future assays in stored serum, plasma, whole blood, urine and DNA.
2. To identify new genetic, behavioural, and environmental determinants of the progression of adiposity and of the development of metabolic abnormalities and cardiovascular risk factors.
3. To characterize the prevalence and progression of subclinical CVD through non-invasive imaging techniques and their genetic, behavioural, and environmental determinants.
4. To interact with external investigators to promote the use of the study database and stored materials for ancillary studies and to disseminate the study findings to the scientific community, to public health authorities, and to the general public.

To collect data, factory workers undergo a standardized annual clinical exam, providing a clinical history, including clinical events and hospitalizations over the past year and current medication use, and undergo a physical exam, consisting of anthropometry (height, weight, and waist circumference), blood pressure measurements and heart rate, as well as laboratory assays, providing biological samples including serum, plasma, blood, urine and DNA. Data collection at the annual medical exams is conducted by the physicians and nurses of the Medical Services of General Motors Spain, who underwent training and standardization programs organized by the study investigators.

Each year, one random third of study participants 40 ?55 years of age at baseline (n=2667) are selected for subclinical atherosclerosis imaging (Cardiac CT for Calcium Scoring, 2D ultrasound of carotid arteries, infrarenal aorta and femoral arteries), and for additional questionnaires of cardiovascular and lifestyle factors (dietary habits, sedentary, physical activity and sleep).

On September 2017, a substudy will begin with the aim of identifying early cognitive impairment in workers over 55 years of age, by using specific questionnaires and gene screening (Apo E).

Workers were excluded from the cohort if they have clinically overt CVD, or a major clinical condition limiting survival to <3 years at baseline. All laboratory procedures have been reviewed and improved to meet the ISO 9001:2008 standard, verified by an external audit.

*Last Update 21/09/2017*

Country Spain

**Contact details**

Institution name Fundaci'n Instituto Investigaci'n Sanitaria de Arag'n (IIS Arag'n)

Instituto Aragon's de Ciencias de la Salud (IACS)

Website [https://ec.europa.eu/eip/ageing/commitments-tracker/a3/aragon-workers-health-study-awhs\\_en](https://ec.europa.eu/eip/ageing/commitments-tracker/a3/aragon-workers-health-study-awhs_en)

Principal Investigator (PI) Dr. Jos' Antonio Casasnovas

Contact email PI Email: [jacasas@unizar.es](mailto:jacasas@unizar.es)

Contact phone number

Funders (Core support) Instituto Aragon's de Ciencias de la Salud (IACS) of the regional Government of Arag'n and The National Center for Cardiovascular Research (CNIC) of the Instituto de Salud Carlos III

**Variables Collected**

**Brain related measures:**

N/A

**Functional rating:**

N/A

**Anthropometric:**

Blood pressure, Height, Hip circumference, Waist circumference, Weight

**Physical:**

Cardiovascular, Respiratory

**Biological samples:**

Blood, Urine

**Genotyping:**

Gene screening

**Brain imaging:**

N/A

**Brain banking:**

N/A

**Lifestyle:**

Alcohol, Dietary habits, Physical activity, Smoking

**Socio-economic:**

Education, Family circumstances, Marital status, Occupation and employment

**Health service utilisation:**

N/A