

MCPS collaboration and open-access data requests with signed agreements in place

(last updated 31 March 2023)



Estudio Prospectivo de la Ciudad de México

Principal Investigator	Dr Christina Magnussen		
Project Title	Geographical distribution, global impact and related lifetime risk of classical cardiovascular risk factors on CVD onset		
Research Summary	<p>Knowledge about the impact of modifiable cardiovascular risk factors on CVD onset is essential to improve CVD prevention. We therefore aim to (1) evaluate the geographical and ethnical differences of systolic blood pressure, non_HDL-Cholesterol, BMI, smoking and diabetes (2) specify their impact on long-term CVD by calculating HRs (and/or population-attributable fractions) (3) describe the change of CVD risk over time (4) calculate related lifetime risk and gain through risk factor modification. To answer these questions, we founded the Global Cardiovascular Risk Consortium (GCVRC) which to date includes 71 cohorts from 34 countries summarizing about 1.5 million individual level data. Preliminary analyses are based on the European MORGAM/BiomarCaRE consortia, which are EU-funded initiatives harmonizing European population-based studies to investigate cardiovascular risk in Europe.</p>		
Date first contact made	18/01/2021	Country	Germany
MCPS Data request ID	2021-001	Type of Data Sharing Agreement	Collaboration
Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla		
Project Title	Adverse socioeconomic profiles modify the impact of data-driven cardiovascular risk cluster traits on cardiovascular mortality		
Research Summary	<p>We propose to perform data-driven cluster traits using socioeconomic and cardiometabolic risk factors to predict overall and CVD-related mortality in Mexican population. The primary aim of this work is to evaluate the added contribution of assessing socio-demographic in addition to traditional cardiovascular risk factors for prediction of all-cause and CVD-related mortality. Additional aims include assessment of socio-demographic profiles which increase cardiovascular risk factor burden in specific populations. Overall, we expect our work to provide valuable insight on the impact of socio-demographic inequalities on the risk of cardiovascular disease in Mexicans, which will provide valuable guidelines to inform public policy implications for targeted prevention of cardiovascular risk factors and reducing the burden of cardiovascular disease taking into consideration the complex interplay of socio-demographic risk factors.</p>		
Date first contact made	10/05/2021	Country	México
MCPS Data request ID	2021-004	Type of Data Sharing Agreement	Open Access Data

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Estudio Prospectivo de la
Ciudad de México

Principal Investigator

Dr Lorena Orozco

Project Title

Leveraging the MCPS cohort: towards precision medicine and population genetics in Mexican/Latin American populations

Research Summary

Genome-wide studies (GWS) have become a powerful tool for the identification of rare and common genetic factors associated with different human conditions as well as for population genetic studies. However, the GWS performed to date have been carried out mostly in populations of European origin. The lack of representation of different populations in these types of studies limits the genomic knowledge as well as the development of precision medicine in these populations. We propose the use of MCPS cohort for two aims: 1) to develop precision medicine in the Mexican population as follows: a) to validate a polygenic risk score (PRS) for metabolic diseases (MD) previously obtained in our laboratory; b) to identify rare variants responsible of monogenic forms of MD. 2) to explore the population genetics of Mexican population as follows: a) to study the Y chromosome and the mitogenome; b) to estimate the age of identical by descent (IBD) segments of the genome in order to provide a better rationale about the history of these populations; c) to validate previously identified selection sweeps in indigenous populations and to identify recent ones.

Date first contact made

29/06/2022

Country

México

MCPS Data request ID

2022-004

Type of Data Sharing Agreement

Collaboration

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Estudio Prospectivo de la
Ciudad de México

Principal Investigator	Dr Yanink Caro-Vega		
Project Title	Female reproductive history and cancer-related deaths among participants in the Mexico City Prospective Study (MCPS) cohort		
Research Summary	<p>Cancer is the fourth leading cause of death in Mexico among women. Gynaecological cancers (breast cancer, cervical cancer, and ovarian cancer) account for most of these deaths in women younger than 60 years.</p> <p>Deaths due to gynaecological cancers in Mexico have shown an association with poverty, lack of formal education and low health access, but not with reproductive history. Factors as lower age of menarche has been associated with an increased risk of all-cause mortality and variables such as hormone replacement therapies, age at menopause has been associated to breast cancer incidence³ but no general mortality or other types of cancer (e.g. cervical cancer) mortality. Also, age at first pregnancy has been associated with genomic changes related to breast cancer, and with lower risk of endometrial cancer.</p> <p>Our aim is to describe the reproductive history of women participating in the Mexico City Prospective Study and to study their association with all cancer causes of death. To understand the potential relation of reproductive history to cancer as cause of death, could help to identify prevention factors of the disease among Mexican women of low resources.</p>		
Date first contact made	10/08/2022	Country	México
MCPS Data request ID	2022-007	Type of Data Sharing Agreement	Open Access Data

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Estudio Prospectivo de la Ciudad de México

Principal Investigator	Dr Omar Yaxmehen Bello-Chavolla		
Project Title	2022-012 MCPS-Bello-Chavolla Collaboration		
Research Summary	<p>16 named projects: 1) Smoking and cause-specific mortality in individuals with diabetes; 2) Clinical and sociodemographic determinants of incident diabetes in apparently-healthy adults living in Mexico City; 3) External validation and recalibration of AnthroAge as a measure of biological age for prediction of all-cause and cause-specific mortality; 4) Metabolomic, anthropometric and sociodemographic characterization of accelerated anthropometric aging; 5) Comprehensive characterization of Kidney-Related Mortality and Kidney function in those with diabetes; 6) Prediabetes as a risk factor for cardio-metabolic disease, all-cause and cause-specific mortality in non-diabetic individuals; 7) External validation and recalibration of cardiovascular risk calculators for cardiovascular disease and characterisation of lipoprotein profiles in individuals at highest risk; 8) External validation of the relative fat mass index for prediction of all-cause and cause-specific mortality; 9) Assessing heterogeneity in hypertension clustering and its risk for all-cause and cause-specific mortality; 10) Characterizing heterogeneity in CVD burden among Mexican adults with diabetes: a precision medicine approach to primary CVD prevention; 11) Inception and validation of a predictive scale for cardiometabolic deaths using an office, biochemical and metabolomic approach; 12) Effect of Individual sociodemographic determinants of avoidable social inequalities on preventable and treatable mortality; 13) Lifestyle patterns and its mediation interaction effect with cardiometabolic and metabolomic risk profiles on the risk of all-cause and cause-specific mortality; 14) Undiagnosed, untreated, and uncontrolled diabetes and arterial hypertension and its risk for all-cause and cause-specific mortality; 15) Validation of a Tomographic and Metabolic Index for Coronary prediction score based on Atherosclerotic Disease ToMI-CAD) for all-cause and casue-specific cardiometabolic mortality; and 16) Working occupation and its interaction with cardiometabolic risk profiles for the risk profiles for all-cause and cause-specific mortality.</p>		
Date first contact made	18/05/2022	Country	México
MCPS Data request ID	2022-012	Type of Data Sharing Agreement	Collaboration

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Estudio Prospectivo de la
Ciudad de México

Principal Investigator	Dr Gary O'Donovan		
Project Title	Longitudinal associations of the 'weekend warrior' and other physical activity patterns with mortality: the Mexico City Prospective Study.		
Research Summary	<p>In our study of more than 60,000 men and women, we showed that the risk of mortality was around 30% lower in 'weekend warriors' who performed all their exercise in one or two sessions per week (O'Donovan et al., JAMA Internal Medicine, 2017, 177, 3, 335-342). One of the limitations of our study is that it was set in England and Scotland and it may not be appropriate to generalise the results to other settings. Another limitation of our study and most cohort studies is that physical activity was only assessed at baseline and it was not possible to investigate the effects of changes in physical activity on mortality. Physical activity was assessed at baseline and after around 16 years of follow-up in the Mexico City Prospective Study. The main objective of the proposed research is to investigate associations of the weekend warrior and other physical activity patterns with mortality in the Mexico City Prospective Study. The secondary objective is to investigate associations of changes in physical activity patterns with mortality. Lack of time is a barrier to physical activity in Latin America and there would be important implications for policy and practice if we were to show that participation in one or two sessions of physical activity per week is sufficient to reduce mortality risk.</p>		
Date first contact made	17/11/2022	Country	Columbia
MCPS Data request ID	2022-015	Type of Data Sharing Agreement	Open Access Institutional

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Estudio Prospectivo de la
Ciudad de México

Principal Investigator

Dr Gerson Ferrari

Project Title

Lifestyle risk factors and all-cause and cause-specific mortality in Mexican adults

Research Summary

In several prospective cohort studies, lifestyle risk factors (e.g., smoking, heavy alcohol drinking, lack of physical activity, and adiposity) have been associated with increased all-cause and cause-specific mortality, such as cardiovascular disease (CVD) and cancer mortality. CVD burden attributable to modifiable risk factors has been estimated in several countries for setting priorities for CVD prevention strategies. The main objective of this project is to investigate associations of modifiable risk factors (both in isolation and in combination) with adverse health outcomes in the Mexico City Prospective Study. Furthermore, we will measure by the financial impact of non-communicable diseases (NCDs) attributable to modifiable risk factors. We believe that a large proportion of CVD and premature deaths could be averted by targeting a few modifiable risk factors. While some risk factors warrant global policies (e.g. inadequate food, smoking, heavy alcohol drinking, lack of physical activity, and overweight and obesity), the importance of several risk factors at different economic and education levels, highlights the need for additional context-specific priorities for prevention of CVD mortality, cancer mortality, and all-cause mortality.

Date first contact made

15/12/2022

Country

Chile

MCPS Data request ID

2022-020

Type of Data Sharing Agreement

Open Access Data

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Estudio Prospectivo de la Ciudad de México

Principal Investigator	Dr Enrique Gomez-Figueroa		
Project Title	Stroke mortality and risk factors in Mexico		
Research Summary	<p>In the first decade of this century, information derived from hospital records and from some multicenter hospital studies in Mexico – the vast majority of which were cross-sectional design - allowed us to identify the main stroke risk factors, its clinical presentation, diagnostic tool approach, acute phase treatment, and in-hospital mortality. Two epidemiological pivotal studies carried out in the city of Durango, México, reported an incidence for a first ever stroke of 118/100,000; in-hospital mortality rate was 39% and the stroke prevalence of 7.7/1,000 inhabitants. Despite this important data, there are no longitudinal studies about stroke incidence related to demographic or cardiovascular risk factors, and much less derived from a cohort study. We aim to know the incidence of cerebrovascular disease and the sociodemographic variables associated with its appearance as lifestyles factors, cardiovascular risk factors, basal somatometric findings, primary or secondary stroke prevention measures taking information from the cohort named MCPS.</p>		
Date first contact made	19/01/2023	Country	México
MCPS Data request ID	2023-005	Type of Data Sharing Agreement	Open Access Data

Principal Investigator	Professor Adrian Soto-Mota		
Project Title	Mortality across different levels of LDL-C in people without other cardiovascular risk factors		
Research Summary	<p>People with normal and low BMI have been identified as having a greater risk of presenting large LDL elevations during carbohydrate restriction. Simultaneously, low-carbohydrate diets have gained popularity for clinical purposes beyond weight control and the risk relevance of high LDL in the absence of other cardiovascular risk factors has been evaluated by a few studies without adjusting for other cardiovascular risk factors. We plan to evaluate the association of LDL with mortality across the BMI spectrum.</p>		
Date first contact made	01/02/2023	Country	México
MCPS Data request ID	2023-008	Type of Data Sharing Agreement	Collaboration Individual