# MCPS Projects Tracker

Projects are show in order of Start Date with most recent first and those started in the last 3 months are highlighted in pink.
Individual Data Sharing Agreements are no longer available

| | MCPS Researchers | External Principal Invesitgator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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## Open Access Data Request

**Title**   **Genetic moderation of the income-health relationship: Evidence from Mexico's elderly cash transfer program**

| Status | Approved awaiting data transfer/access | | Dr Adrian Rubli | 07/05/2024 | Yes | 27/06/2024 | 2024-013 | 128 |
|---|---|---|---|---|---|---|---|---|

Research Summary/Abstract   Project aims: Research in socio-genomics examines how molecular genetic data relate to complex health, social, and economic outcomes. This research is made possible by recent advances in behavioural genetics that provide guidance on construction of polygenic risk scores along with the collection of genetic information from respondents in large and representative samples. Of key interest in this literature are gene-by-environment (GxE) interactions (referring to how environments modulate how genes relate to outcomes) because environments are policy-modifiable. We propose to examine a specific GxE interaction: how genes related to health (e.g., obesity), health behaviours (e.g., smoking) anddecision-making (e.g., Alzheimer's and educational attainment) interact with outcomes related to unexpected cash transfers.
Data required. We will use variables from the Lifestyle characteristics, Prior diseases, Fractures/falls, Reproductive history, Physical measurements, Blood sampling, Urine sampling, and Mortality sections as our outcomes. This broad set of variables will allow us to get a more complete picture of individual health. We will use variables from the Socio-demographic characteristics section to identify cash transfer eligible individuals and as controls. Lastly, we will use variables from the NMR metabolomic data and Genetic data to explore the moderating effects of genetics on this relationship.

Further information   ..\Academic data sharing agreement\2024-013 AdrianRubli\2024-013 mcps-data-access-request-form.pdf

**Title**   **Joint association between physical activity, obesity and all cause and cause specific mortality in Mexican adults**

| Status | Data transferred/accessed | N/A | Dr Gerson Ferrari | 21/03/2024 | Yes | 23/01/2023 | 2024-011 | 125 |
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Research Summary/Abstract   The joint associations of frequency and duration physical activity with obesity indicators (body mass index, waist circumference, body fat, fat mass and visceral fat index) in relation to all cause and cause specifc mortality risk are unclear. The main objective of the proposed research is to investigate the combined associations of frequency and duration physical activity and obesity indicators in relation to risk of all cause and cause specifc mortality in Mexican adults. Prospective cohort study including over 150,000 Mexican adults from Mexico City Prospective Sudy. Frequency and duration physical activity will analyzed. The obesity indicators considered will be: body mass index, waist circumference, body fat, fat mass and visceral fat index. The following mortality outcomes will considered in our study: cardiovascular, cancer, respiratory, and all-cause mortality. Multivariable Cox models will be performed to examine the association of of frequency and duration physical activity with obesity indicators in relation to all cause and cause specifc mortality risk.

Further information   K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2024-011 GersonFerrari\2024-011 mcps-data-access-request-form-v3.1-english_v1.docx

**Title**   **Family characteristics related to the presence of obesity in residents of Mexico City**

| Status | Approved awaiting data transfer/access | N/A | Dr Malaquías López Cervantes | 19/09/2023 | Yes | 21/03/2024 | 2023-031 | 111 |
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Research Summary/Abstract   En 2016 el 72.5% de la población adulta tenía sobrepeso u obesidad, mientras que en 2018 la prevalencia aumentó hasta 75.2%. La obesidad es un factor de riesgo para las enfermedades crónico-degenerativas, como la diabetes tipo II, las enfermedades cardiovasculares, el cáncer de mama y endometrio entre otras. En el inicio y permanencia de la obesidad participan factores genéticos, ambientales, socioeconómicos y conductuales, los cuales han sido estudiados solamente a nivel individual, a pesar de que las personas, por lo general, viven agrupadas en familia. El entorno familiar juega un papel esencial en el desarrollo de la obesidad. Debido a este hecho, el objetivo de este trabajo es identificar los factores estructurales y funcionales de la familia relacionados con la presencia de obesidad. Este trabajo contribuirá en el conocimiento de este creciente problema de salud en la población mexicana desde el enfoque familiar, lo cual podría resultar de utilidad para su abordaje desde la perspectiva de la familia. Los resultados de este estudio permitirán cuantificar el posible impacto en la iniciación y permanencia de la obesidad y determinar el rol de la familia en la adquisición de estilos de vida que llevan a la familia a presentar obesidad en México.

Further information   K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-031 Malaquías López Cervantes\2023-031 mcps-data-access-request-form-v4.0-spanish_1 TRANSLATION.docx

| | MCPS Researchers | External Principal Investigator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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**Title**    **Are there U-shaped associations of HDL-cholesterol and HDL-cholesterol subclasses with mortality? An analysis of more than 40,000 participants in the Mexico City Prospective Study**

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| Status | Data transferred/accessed | N/A | Dr Catalina Medina Garcia | 07/09/2023 | Yes | 01/11/2023 | 2023-029 | 107 |

Research Summary/Abstract    Large studies suggest that associations between high-density lipoprotein cholesterol (HDL-C) and mortality are U-shaped, with both low and very high levels being associated with increased risk. However, there are no such studies in Latin America. The main objective of the proposed research is to investigate whether there are U-shaped associations between HDL-C concentration and mortality in adults in the Mexico City Prospective Study. The secondary objective is to investigate whether there are U-shaped associations between HDL-C subclasses and mortality. The exposures will be HDL-C concentration and small, medium, large, and very large HDL-C subclasses. The outcomes will be all-cause, cardiovascular disease, and cancer mortality. Potential confounders will include age, sex, triglycerides concentration, LDL-cholesterol concentration, cholesterol medication, blood pressure, diabetes, socioeconomic status, smoking, alcohol, diet, body mass index, and physical activity. There would be profound implications for policy and practice in Mexico if we were to find U-shaped associations between HDL-C and mortality. In particular, it would imply that it was no longer appropriate to continue to emphasise raising HDL-C in the primary prevention of chronic disease.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-029 CatalinaMedinaGarcia\Data Request August 2023 CM and colleagues.pdf

**Title**    **Associations between the 'weekend warrior' physical activity pattern and screen-detected mild cognitive impairment: findings from the Mexico City Prospective Study.**

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| Status | Data transferred/accessed | N/A | Dr Gary O'Donovan | 25/08/2023 | Yes | 05/12/2023 | 2023-027 | 109 |

Research Summary/Abstract    Cross-sectional studies in high-income countries in the West suggest that the 'weekend warrior' physical activity pattern is associated with mental health benefits. The objective of the proposed research is to investigate associations between the weekend warrior physical activity pattern and mild cognitive impairment in adults in the Mexico City Prospective Study. The exposure will be leisure time physical activity. Those who exercise once or twice per week will be termed weekend warriors. Those who exercise more often will be termed regularly active. The outcome will be mild cognitive impairment, as assessed using the mini mental state examination screening tool. Potential confounders will include age, sex, education, blood pressure, smoking, body mass index, civil status, sleep, diet, and alcohol. Logistic regression will be used to investigate cross-sectional associations. Logistic regression or Cox regression will be used to investigate longitudinal associations. All analyses will be adjusted for potential confounders. Mild cognitive impairment often precedes dementia and there would be important implications for policy and practice if we were to find that exercising once or twice per week was associated with reduced risk of mild cognitive impairment.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-027 GaryODonovan\2023-027 Data Request Physical activity and mild cognive impairment Version 2.0.pdf

**Title**    **What are the associations between 'diabesity' and mortality in adults in Mexico? Findings from the Mexico City Prospective Study**

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| Status | Data transferred/accessed | N/A | Dr Gary O'Donovan | 14/08/2023 | Yes | 05/12/2023 | 2023-026 | 106 |

Research Summary/Abstract    People living with 'diabesity' (obesity and diabetes) have been shown to be at high risk of mortality in previous studies. Given that these associations have been less explored in Latin American countries such as Mexico, the aims of the proposed research are to investigate the prevalence of diabesity and to investigate associations of the condition with mortality in Mexico. Cox proportional hazard regression adjusted for sociodemographic and lifestyle factors will be performed to investigate these associations. It is expected that individuals with diabesity will have a higher risk of mortality than their counterparts. Therefore, our research may support the implementation of targeted interventions in high-risk populations in Mexico.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-026 GaryODonovan\2023-026 Data request diabesity.docx

**Title**    **Development of a risk prediction model for myelomeningocele using a candidate gene sequencing panel in Mexican mestizo families**

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| Status | Data transferred/accessed | N/A | Dr Osvaldo Máximo Mutchinick Baringoltz | 05/06/2023 | Yes | 16/01/2024 | 2023-023 | 86 |

Research Summary/Abstract    Myelomeningocele (MMC) is a congenital malformation that consists of a neural tube closure defect (NTCD), the most common and severe form. In Mexico the prevalence is ~1/1,000 live births according to the Registry and Epidemiological Surveillance of Congenital Malformations (RYVEMCE).
Its etiology is multifactorial, the result of complex genetic and environmental interactions. To investigate the genetics of MMC, we previously carried out a multicenter study in 300 trio families (affected case, mother and father) by means of sequencing (NGS) of 40 candidate genes. The results allowed us to identify association patterns of variants in a particular set of genes (clusters). Based on these findings, we have set ourselves the goal of developing a risk prediction model by studying a panel of genes that allows personalized predictions. We consider that genetic information from a reference population such as that of the MCPS would help us establish risk estimates and develop a clinically useful model for couples who have had offspring with DCTN or those considering future pregnancies. Finally, with this approach we hope to contribute to the knowledge of the genetics of complex diseases such as DCTN, and MMC in particular.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-023 OsvladoMutchinick\2023-023 mcps-data-access-request-form-v4.0-spanish TRANSLATION.docx

| | MCPS Researchers | External Principal Invesitgator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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**Title** **Identification of pharmacogenomic variants associated with drug response and metabolism in the Mexican population**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 12/04/2023 | Yes | 02/05/2023 | 2023-001-08 | 75 |
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Research Summary/Abstract  Metabolism of endogenous and exogenous substances in the organism is mediated by multiple enzymes and transporters. More than 300 genes have been found to be involved in the absorption, distribution, metabolism, and excretion of drugs, xenobiotics, and other endogenous substances. Genetic variants that alter the function of these genes can modulate the rate at which these substances are processed and consequently influence the response of the individual, the effect of these drugs, and the response to treatments.
The aim of this study is to identify known functional and potentially novel functional variants in genes of pharmacogenetic importance involved in drug and other substances metabolism. We will survey their frequencies in the Mexican population to better understand the impact of these variants in the response to common drugs prescribed to individuals of this population.

Further information  K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-08 Gonzaga-Jauregui_PharmacogenomicVariation-mcps-data-access-request-form.docx

**Title** **Identification and analysis of short tandem repeats and their variability in Mexican genomes**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 12/04/2023 | Yes | 02/05/2023 | 2023-001-09 | 76 |
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Research Summary/Abstract  Short tandem repeats (STRs), also known as microsatellites, are regions of the genome that contain repetitive DNA sequences that involve a repetitive unit of 1-6 bp (Tautz et al., EXS 1993), forming series with lengths of up to 100 nucleotides (nt). STRs are widely found in prokaryotes and eukaryotes, including humans. By analyzing STRs, we can gain insight into genetic variation that can be used for a variety of applications, including forensic investigations, genetic ancestry testing and sample identification. However, most large-scale studies to characterize STRs have been conducted in Eurocentric populations, and not much is known of their variability in other and more diverse populations, such as the Mexican population. The aim of this study is to analyze and characterize STRs and their variability in the data from the Mexico City Prospective Study (MCPS) cohort.

Further information  K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-09 Gonzaga-Jauregui_STRs Analyses-mcps-data-access-request-form.docx

**Title** **Modeling the relationship between obesity and cancer in the Mexico City Prospective Study**

| Status | Data transferred/accessed | N/A | Dr Cristopher Van Hout | 31/03/2023 | Yes | 02/05/2023 | 2023-001-07 | 73 |
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Research Summary/Abstract  The prevalence of cancers in Mexico City Prospective Study (MCPS) is low compared to expectation, but prostate, breast, and cervical cancers seem to be the most common types. This proposal aims to look closely into different types of cancer among MCPS participants and examine the environmental and genetic correlation between obesity and cancer risk. We will evaluate the prevalence of different cancers in MCPS and compare it with the global expectation. We aim to determine the relationship between metabolically healthy obesity, regional adiposity, and different cancers, and examine the genetic association of obesity with cancer risk.

Further information  K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-07 CristopherVanHout_ObesityCancer_mcps-data-access-request-form-v4.0-english.docx

**Title** **Stroke mortality and risk factors in Mexico**

| Status | Data transferred/accessed | Diego Aguliar-Ramirez | Dr Enrique Gomez-Figueroa | 19/01/2023 | Yes | 16/03/2023 | 2023-005 | 58 |
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Research Summary/Abstract  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.

Further information  K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-005 Enrique Gomez-Figueroa\2023-005 mcps-data-access-request-form-v3.1-english.pdf

| | MCPS Researchers | External Principal Invesitgator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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**Title**    **Identification and analysis of medically actionable variants in the Mexican population**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 11/01/2023 | Yes | 02/05/2023 | 2023-001-01 | 54 |
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Research Summary/Abstract    Genomic sequencing of individuals that are part of biobanking initiatives allows for the genotype-first unbiased identification of individuals at increased risk of developing cancer, cardiovascular disease, or other conditions that can be medically actionable. The identification of these high-risk medically actionable variants also allows the prevalence of these genetic disorders in populations of interest, such as underrepresented and underserved populations to be established. Analyses of genomic data from large-scale population sequencing projects such as the Mexico City Prospective Study (MCPS) will allow the identification of medically actionable variants and estimate their frequencies in an underrepresented non-European ancestry population. We will compile a list of reported pathogenic variants in medically actionable genes and identify these and likely pathogenic variation in individuals from the MCPS study. We will use individual level genomic data to confirm these variants and familial relationships derived from the genetic data to segregate the identified variants and determine their overall population frequency.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-01 Gonzaga-Jauregui_ActionableVariation-mcps-data-access-request-form.docx

**Title**    **Identification of genetic variants associated with Early Onset Alzheimer's Disease risk in the Mexican population**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 11/01/2023 | Yes | 02/05/2023 | 2023-001-02 | 62 |
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Research Summary/Abstract    Dementia is a general term that includes different pathologies with a similar clinical course, symptoms and histopathological features such as progressive memory loss, disturbance of cognitive function and deterioration of language and judgment. Alzheimer's Disease (AD) is the most common form of dementia in the world, comprising 55% to 70% of all dementia cases. Early Onset Alzheimer's Disease (EOAD) is a rare form of AD with onset before 65 years of age, affecting people in their 3rd and 4th decades of life. EOAD accounts for about 10% of all AD cases and the majority of patients have a positive family history. Genetic variation in a handful of genes have been associated with autosomal dominant inheritance in familiar cases. The aim of this study is to identify high-risk variants for EOAD and survey their frequencies in the Mexican population to understand the background population susceptibility to this disease.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-02 Gonzaga-Jauregui_EOAD-mcps-data-access-request-form.docx

**Title**    **Identification and analysis of Mendelian disorders associated variation in the Mexican population**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 11/01/2023 | Yes | 02/05/2023 | 2023-001-04 | 64 |
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Research Summary/Abstract    Mendelian disorders are characterized by being caused by highly-penetrant variants, most of which are rare or low frequency. Genomic sequencing of individuals that are part of biobanking initiatives allows for the genotype-first unbiased identification of individuals carrying pathogenic variation in genes associated with Mendelian conditions. The identification of these highly-penetrant variants also allows the prevalence of these genetic disorders in populations of interest, such as underrepresented and underserved populations to be established. Additionally, the identification of adult individuals carrying pathogenic variation for Mendelian conditions enables the better understanding of the adult manifestation, penetrance, and progression of genetic conditions that have been primarily described in children. Studies of highly-penetrant disease variation associated with Mendelian conditions in understudied populations, such as the Mexican population, is necessary to better understand the etiology and genetic architecture of human disease.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-04 Gonzaga-Jauregui_MendelianDisorders-mcps-data-access-request-form.docx

**Title**    **Identification and analysis of structural variation in the Mexican population**

| Status | Data transferred/accessed | N/A | Dr Claudia Gonzaga-Jauregui | 11/01/2023 | Yes | 02/05/2023 | 2023-001-05 | 65 |
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Research Summary/Abstract    Genomic structural variants (SVs), which were once considered rare events, are now recognized as the larger source of genomic variation in terms of overall number of bases involved and contributing to a difference of 0.4% between two human individuals. Additionally, SVs have also been shown to play an important role in phenotypic variation, human traits, and genetic diseases. Most large studies of genomic SV have been conducted in Eurocentric populations, ignoring the breadth of human genomic variation present in underrepresented populations such as the ones in Latin America, including the Mexican population. We aim to identify, analyse, and characterize the spectrum of structural variation in the Mexican population leveraging the genomic data from exomes and especially whole genome sequence data from the MCPS cohort. We will also perform bioinformatic analyses looking at different assembly approaches leveraging other genomes that may be more representative of the Mexican population. Considering that no large-scale studies of structural variation have been carried out in Latin American populations and MCPS being the largest cohort study of its type in a non-European ancestry population, the results of this study will allow better characterisation of the unique genomic features and SVs of Mexican genomes.

Further information    K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2023-001 ClaudiaGonzagaJauregui\2023-001-05 Gonzaga-Jauregui_StructuralVariation-mcps-data-access-request-form.docx

| | MCPS Researchers | External Principal Invesitgator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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**Title** Lifestyle risk factors and all-cause and cause-specifc mortality in Mexican adults

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| Status Data transferred/accessed | N/A | Dr Gerson Ferrari | 15/12/2022 | Yes | 23/01/2023 | 2022-020 | 51 |

Research Summary/Abstract 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.

Further information K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2022-020 Gerson Ferrari\2022-020 mcps-data-access-request-form-v3.1-english_v2.pdf

**Title** Longitudinal associations of the 'weekend warrior' and other physical activity patterns with mortality: the Mexico City Prospectve Study

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| Status Data transferred/accessed | N/A | Dr Gary O'Donovan | 17/11/2022 | Yes | 23/03/2023 | 2022-015 | 46 |

Research Summary/Abstract 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.

Further information K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2022-015 GaryODonovan\2022-015 Data request, O'Donovan and colleagues, Version 1.1.pdf

**Title** Archaic introgression and complex trait variation in MCPS

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| Status Data transferred/accessed | N/A | Dr Mashaal Sohail | 16/11/2022 | Yes | 21/03/2024 | 2022-016-01 | 47 |

Research Summary/Abstract In this proposal, we infer archaic introgression and investigate its effects on complex trait variation in Mexicans across a range of complex traits and diseases. To do this, we will need genome-wide genotype data on common variants and phenotype data on a broad range of phenotypes and lifestyle factors available through MCPS. Our proposal will advance knowledge of the causes of common diseases by increasing our understanding of role of archaic genetic variation in disease risk.

Further information K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2022-016-01 Mashaal Sohail\2022-016-01 mcps-data-access-request-form-v4.2-english_revised.pdf

**Title** Female reproductive history and cancer-related deaths among participants in the Mexico City Prospective Study (MCPS) cohort

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| Status Data transferred/accessed | N/A | Dr Yanink Caro-Vega | 10/08/2022 | Yes | 22/11/2022 | 2022-007 | 38 |

Research Summary/Abstract 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. 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. 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.

Further information K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2022-007 YaninkCaroVega\Data accesss_Yanink Caro_200922.pdf

| | MCPS Researchers | External Principal Invesitgator | Start Date | DSA Required | Date DSA signed | MCPS Data Request ID | ProjectID |
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| Title | **Data-driven socioeconomic clusters reveal inequalities in all-cause and cause specific mortality** | | | | | | |
| Status | Data transferred/accessed | N/A | Dr Omar Yaxmehen Bello-Chavolla | 10/05/2021 | Yes | 11/10/2021 | 2021-004 | 22 |

Research Summary/Abstract  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.

Further information  K:\Mexico\Admin\Data Access Policy\Academic data sharing agreement\2021-004 OmarBelloChavolla\mcps-data-access-request-form-2021-004.pdf