

INTERNATIONAL MIGRANTS' HEALTH

HEALTH STATUS: NON-COMMUNICABLE DISEASES

SCIENTIFIC LITERATURE REVIEW SUMMARY SHEET

What will you find on this summary sheet?

This document summarizes the scientific literature regarding Non-Communicable Diseases (NCDs) of international migrants within the Region of the Americas. The information provided here is based on a broader scoping review of the published scientific literature regarding international migrants' health in the Region of the Americas between January 2016 and March 2023.

This summary sheet is a narrative and descriptive synthesis of several main topics related to the field, with a focus on international migration and health in the Region. It does not fully represent the heterogeneity of information available internationally in terms of type of migrants, countries of origin, and study designs; however, it provides a description of general patterns often found in this literature. In this scoping review, 61 articles addressed NCDs of international migrants.

The results presented in the following scientific literature review summary sheet are based on selected articles from the review and are not intended to be an exhaustive review of all current literature. You can find all references in the interactive dashboard located within PAHO's Information Platform on Health and Migration.

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Are there other similar scientific literature summary sheets on international migrants' health available?

The scoping review on international migrants' health included a total of 837 academic articles categorized within three broad themes: health outcomes, health systems and health determinants. All these articles are described and presented in an interactive dashboard along with 11 other similar summary sheets are available that touch upon more specific categories within these three major themes. If you want to learn more about NCDs, you can find more information regarding access to services on the summary sheet on Health Care Access.

MAIN FINDINGS

What can we learn from the scientific literature so far about international migrants' non-communicable diseases?

Studies retrieved from the published scientific literature suggest some of the following findings:

CARDIOVASCULAR DISEASES

Key findings from studies found in the scientific literature refer to the prevalence and distribution of cardiovascular diseases in some migrant groups, such as:

- There is data suggesting differences in prevalence among migrants depending on gender and region of origin. Coronary heart disease was higher in men from Europe and women from Mexico, Central America, and the Caribbean. Meanwhile, stroke was higher in men from Mexico, Central America, the Caribbean, Europe, and women from Africa, Mexico, Central America, and the Caribbean (1).
- It was reported that Hispanic migrants who stayed for more than 10 years in the host country showed higher prevalence of stroke and cardiovascular risk factors such as hypertension and hypercholesterolemia (2). Conversely, recent migrants elicited lower incidence rate of heart failure and its risk factors (e.g. acute myocardial infarction, atrial fibrillation etc.) (3). In addition, a longer duration of residence was associated with 1.29 times hazard of cardiovascular events, mainly in those migrants under 65 years. The influence of length of residence suggests that cardiovascular health may converge toward the profile of local population overtime (4).
- Korean migrants were found in one study to have a high prevalence of hypertension and overweight, as well as other risk factors such as smoking and high-sodium intake associated with acculturation (5). Moreover, hypertension had also been found in high rates in immigrants from South Asia, Africa, Mexico, Central America, and the Caribbean in comparison to migrants from other regions (6).
- Research has also shown that foreign Afro-descendant men have little awareness of having

hypertension, which increased with length of stay (7).

- A study found that migrants to the USA usually present a good health status upon arrival, yet a pronounced cardiovascular health decline is seen among those <65 years of age at baseline and among Hispanic/Latino participants. This can partly be explained by acculturation (8).

OBESITY AND OVERWEIGHT

- A study with a sample of 70 adults from Hispanic, Somali, and Sudanese communities in the United States (USA) reported a mean body mass index (BMI) of 30.2 kg/m², classified as obesity. Among the sample, 80% of them were either overweight or obese (9). Immigrants from the Indian subcontinent had similar prevalence of these conditions (80.4%), followed by those from Mexico, Central America, and the Caribbean, as shown by another specific study (6).
- Obesity was also measured in Korean immigrants by another study, whose results show that their prevalence ranges from 43.3% to 56.9% (5).
- Length of residence could increase the prevalence of obesity, for example, Hispanic migrants who stayed 15 years reached 24.2% while those who stayed 5 years had 14.5% (2).

DIABETES

- A study from the USA found a high prevalence of diabetes in migrants from the Indian Subcontinent, Mexico, Central America, and the Caribbean, among whom obesity was also prevalent. Noteworthy, men from the Indian Subcontinent had the highest prevalence reaching 16.3% (6).
- Another study compares Mexican and Cuban immigrants with their counterparts who stay in their country of origin, revealing that there is a

higher prevalence in those who migrated to the USA (2).

- The prevalence of diabetes among people with overweight/obesity was studied in a sample of Hispanic migrants, indicating that the prevalence of diabetes and pre-diabetes was 36% and 20%, respectively. However, screening of the remaining sample of obese patients revealed a high rate of undiagnosed diabetes or prediabetes (10).
- Latinx immigrants are at higher risk for type 2 diabetes. A review found that USA immigration excludes undocumented from accessing healthcare, and fear of deportation acts as an additional barrier (11). Another study on end-stage kidney disease also found that migrants in the USA, especially non-documented, are often left out of programs and policies (12).

CANCER

- Data from hospital discharges in Chile, in 2012, show that migrants are mainly diagnosed with gastric (18.5%), lymphoid tissue (17.4%) and breast (16.7%) cancers. These hospital discharges represent a standardized rate of 249.3 discharges per 100.000 population, lower than the rate of the local population (13).
- Endometrial and ovarian cancers are prevalent in Caribbean women, as shown by one scientific study. Among them, 44.3% of Afro-descendant women had endometrial tumors in an advanced stage, which was associated with worse outcomes (14).
- Additionally, another study shows that a high proportion of Caribbean women with epithelial ovarian cancer were classified with stage III-IV (77.8%). Although residual disease after surgical treatment was still present, nativity was identified as a protective factor associated with a median of 29 months survival (15).
- Evidence of prostate cancer in immigrant men has suggested a great likelihood of diagnosis and mortality rates in Afro-descendant men (16).
- Gastric cancer has been described in migrants from Africa, Mexico, Central America and the Caribbean, whose tumors were mainly located in the antrum of the stomach and mostly classified

in a late stage. In addition, being Hispanic or originating from Central America/Mexico was associated with late-stage presentation (17).

- Hispanic migrants have also reported to suffer from colorectal cancer. A study performed across the USA reported an incidence of 54.5 per 100.000 population. During the period of 2001 to 2014 rates increased in Hispanic migrants aged 20 to 29 years, while those over 50 years showed reductions (18).
- Risk factors for hepatocellular carcinoma have been explored in the USA in migrants from endemic areas (China, Lao, Thailand, Korea, and Vietnam). These factors are related to viral risk, lifestyle, and metabolic etiology, which were differentially distributed by sex, age, and country of origin (19).
- A study from the USA based on a sample comprised of a majority foreign born (95%) Asian (92%) participants with chronic hepatitis B, found that adherence to hepatocellular carcinoma surveillance in patients with chronic hepatitis is generally poor and varied according to on cirrhosis status (20).
- In relation to breast cancer diagnosis, a study from the USA found that lack of fluency in the new country's language, lack of knowledge, and poor exposure to breast cancer screening may contribute to Arab Muslim women's vulnerability to un-diagnosis or delayed diagnosis (21).

OTHER DISEASES

- A systematic review of population-based cohort studies examining the phenotype and outcomes of inflammatory bowel disease according to migration status found that, compared with native residents, a family history of inflammatory bowel disease was more common among immigrant patients, but no significant differences were noted in phenotype. Migrants showed greater likelihood of having pancolitis (22).
- Another systematic review explored inflammatory bowel disease, multiple sclerosis, type 1 diabetes, systemic lupus erythematosus, rheumatoid arthritis, ankylosing spondylitis or

psoriasis and psoriatic arthritis, among immigrants and local population. Findings show that inflammatory bowel disease was associated with younger age of migration and the incidence of multiple sclerosis is higher in those who spent their early years in the host country. Meanwhile, high incidence of systemic lupus erythematosus has been found in Arab, Chaldean, and African migrants (23).

- End-stage renal disease is a major concern among undocumented migrants, specifically their dialysis treatment. A study conducted in the USA shows that those who were subjected to emergency dialysis had a risk of mortality that was 5 times higher, whilst a scheduled dialysis reduced hospitalizations and mortality risk by 14% (24).
- Another study from the USA further showed that dialysis is also related to bloodstream infections in those who received emergency dialysis. A rate of 0.84 infections per 1000 catheter days have been reported and cirrhosis was associated with infection risk. These infections caused diverse complications (osteomyelitis, infective endocarditis, septic emboli), hospitalization and 4% mortality rate (25).

HOST COUNTRY INITIATIVES

- A study reports on the effects of a health literacy curriculum on cardiovascular health among Spanish speaking migrant adults living in the

USA. Its results show an increase in scores related to cardiovascular health literacy and health behaviors. (26).

- Interventions to control diabetes has been implemented mainly in Chinese and Hispanic migrants through lifestyle changes. A study conducted in the USA reported a tendency towards improvements in weight and blood sugar parameters, mainly in those who express a better health perception and healthier habits (27).
- Also, in the USA, tailored interventions for Hispanics with past medical history of cardiovascular diseases showed reductions in blood sugar levels at 1 month follow up. However, challenges remain regarding long term behavioral changes (28).
- Adherence to treatment has been also studied in Latino migrants living in the USA. Particularly, a study in the region has suggested that Spanish speakers have poor adherence and glycaemia control (29).
- Factors that may influence non-adherence were reported by Mexican immigrants with an average residence duration of 28 years in the USA. The most informed reasons are related to negative perceptions of the effects and benefits of medication (30).

Featured Article

Differences in Prevalence of Diabetes Among Immigrants to Canada from South Asian Countries (31)

While there is previous research that indicates that the prevalence of diabetes is high within South Asian migrants, this study further explores diabetes prevalence among immigrants from five South Asian countries living in Ontario, Canada. To this aim, the study used population-based health care and immigration databases and compared diabetes prevalence between immigrants to Ontario from different South Asian countries, as well as in the non-immigrant population.

Results show that, after standardization for age, sex, and income, prevalence was highest among South Asians from Sri Lanka reaching 26.8%, followed by Bangladesh with a prevalence of 22.2%, Pakistan reaching 19.6%, India with 18.3% of the sample presenting diabetes, and lastly, Nepal with a lower prevalence of 16.5%. All these groups had a higher prevalence as compared to the local population that had a prevalence of 11.6%.

Relevant sociodemographic factors according to which prevalence varies include factors as sex, income, education, English proficiency, and refugee status. In each country, prevalence was higher in men compared to women. Prevalence of diabetes was inversely related to income in migrants from Sri Lanka, and inversely related to education in migrants from India. Among migrants from India, individuals with no English proficiency had a higher prevalence of diabetes, and refugees from Bangladesh and Pakistan had a higher prevalence than non-refugees from those countries. This study adds relevant knowledge to the literature showing remarkable differences in diabetes prevalence among immigrants from different countries of South Asia. Recognizing such heterogeneity can help identifying priorities for primary care in for specific South Asian migrant populations.

Featured Article

Factors Impacting Adherence to Diabetes Medication Among Urban, Low Income Mexican Americans with Diabetes (30)

Mexican Americans have a high burden of type 2 diabetes and weak adherence to medication is a barrier to achieve metabolic control. However, little is known about barriers and facilitators to medication adherence in this specific population. This study explores adherence to medication through qualitative semi-structured interviews upon a sample of 27 adults.

A frequent belief that led to non-adherence was that side effects of diabetes medication were not worth its benefits. Some reported omitting medications because of specific side effects such as stomach pain, hypoglycemia, or restlessness. “The medicine wouldn’t sit well with me, and I stopped. Many, I went 3 or 4 years without medicine”. Medication was also thought as unnecessary; “I have had the medication, but rarely do I take the tablets that they gave me because I don’t feel that it is necessary”. The belief that healthy lifestyles made medicine unnecessary was also reported by participants. In contrast, acknowledging the importance of diabetes medication was a facilitator for adherence.

Interpersonal barriers for medication adherence were also reported, such as poor communication with providers; “I have little faith in her [the doctor]. It’s like, I feel that ... I am not even taking them [the medication]. Not how she told me. Because it’s too many pills. And I told her: “Hey” and I told her “Hey doctor, doesn’t it affect my lungs” [the doctor]: “Right now they [the lungs] are fine”, just like that. I mean, come on”. Conversely, discussing adherence with providers was noted as a facilitator to medication uptake. Another interpersonal facilitator was family support, such as helping patients organize their medications and reminding them to take their medications.

Some patients also reported that they would not adhere to treatment due to its cost; “I couldn’t buy the medicine where I tell you they sent me. So, then I didn’t even go and I went about 3 months without medicine”.

Authors conclude that reported barriers can be addressed through educational efforts and by developing interventions that engage family members as a support system for medication adherence.

Featured Article

Lifestyles and Health Status of Migrants in a Barranquilla Settlement, 2018 (32)

This study aimed to describe lifestyles, living conditions, and the health status of Venezuelan migrants and Colombian returnees in a Colombian settlement in 2018. Through a descriptive study they analyzed data from 229 individuals, aged 15 or more, from 90 households.

Results show that living conditions are precarious and access to public services is limited, with less than half of households reporting access to aqueduct, sewerage, and toilets. In general, participants’ self-reported health status is either good, or very good, with low prevalence of non-communicable diseases, except for high blood pressure. More specifically, based on participants’ self-reported non-communicable diseases, the prevalence of high blood pressure is 12.5%, 8.7% for dyslipidemia and COPD/Asthma. Also, 20.2% of participants indicated having clinically significant depressive symptoms. The majority of those who attended emergency services report effective access to services.

Authors conclude that Venezuelan migrants and Colombian returnees experience vulnerable living conditions but report good access to emergency care despite being uninsured.

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HEALTH AND MIGRATION

MAPPING OF SCIENTIFIC
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