VI Curso de Políticas y Programas para la Promoción de Hábitos y Estilos de Vida Saludable

28 de septiembre al 1 de octubre de 2017. Bogotá, Colombia

Aspectos sociales y culturales de la investigación en actividad física en Latino América

Adriano Akira F. Hino

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GPAQ Grupo de Pesquisa em Atividade Física e Qualidade de Vida

SCIENTIA, VITA ET FIDES PUCPR

AGENDA

- Las diferencias en el ambiente social y construido en América Latina
- Como las diferencias afectan las investigaciones sobre ambiente y actividad física
- Como tratamos las diferencias

Las diferencias

Sallis JF, et al. An ecological approach to creating active living communities. **Annu Rev Public Health** 2006;27:297-322.

Las diferencias

THE LANCET

Shaping cities for health: complexity and the planning of urban environments in the 21st century

Yvonne Rydin, Ana Bleahu, Michael Davies, Julio D Dávila, Sharon Friel, Giovanni De Grandis, Nora Groce, Pedro C Hallal, Ian Hamilton, Philippa Howden-Chapman, Ka-Man Lai, C J Lim, Juliana Martins, David Osrin, Ian Ridley, Ian Scott, Myfanwy Taylor, Paul Wilkinson, James Wilson

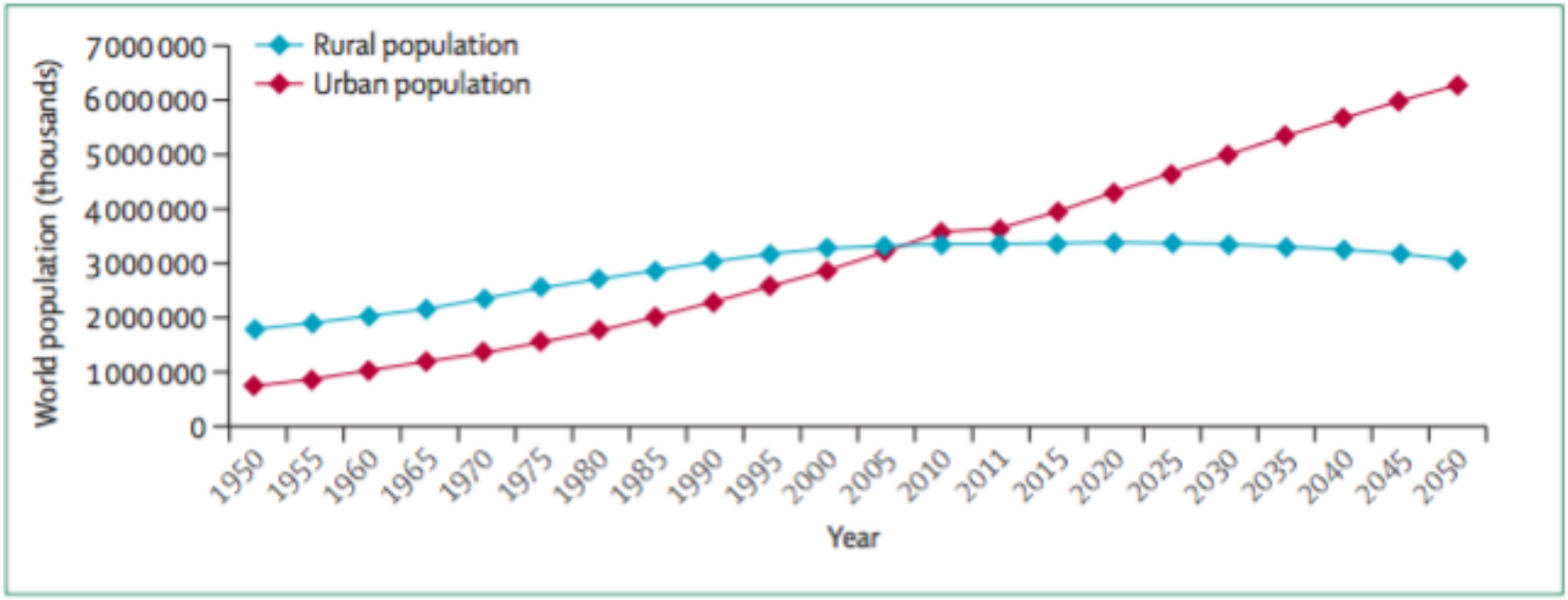
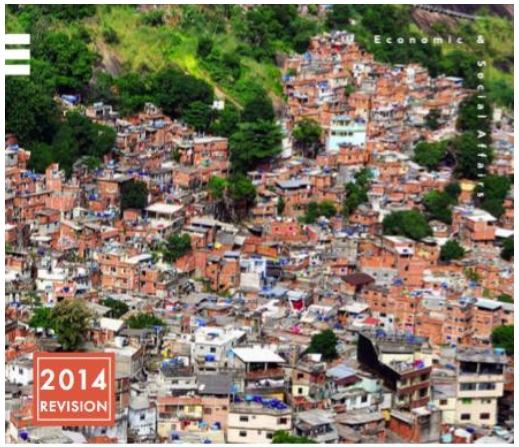
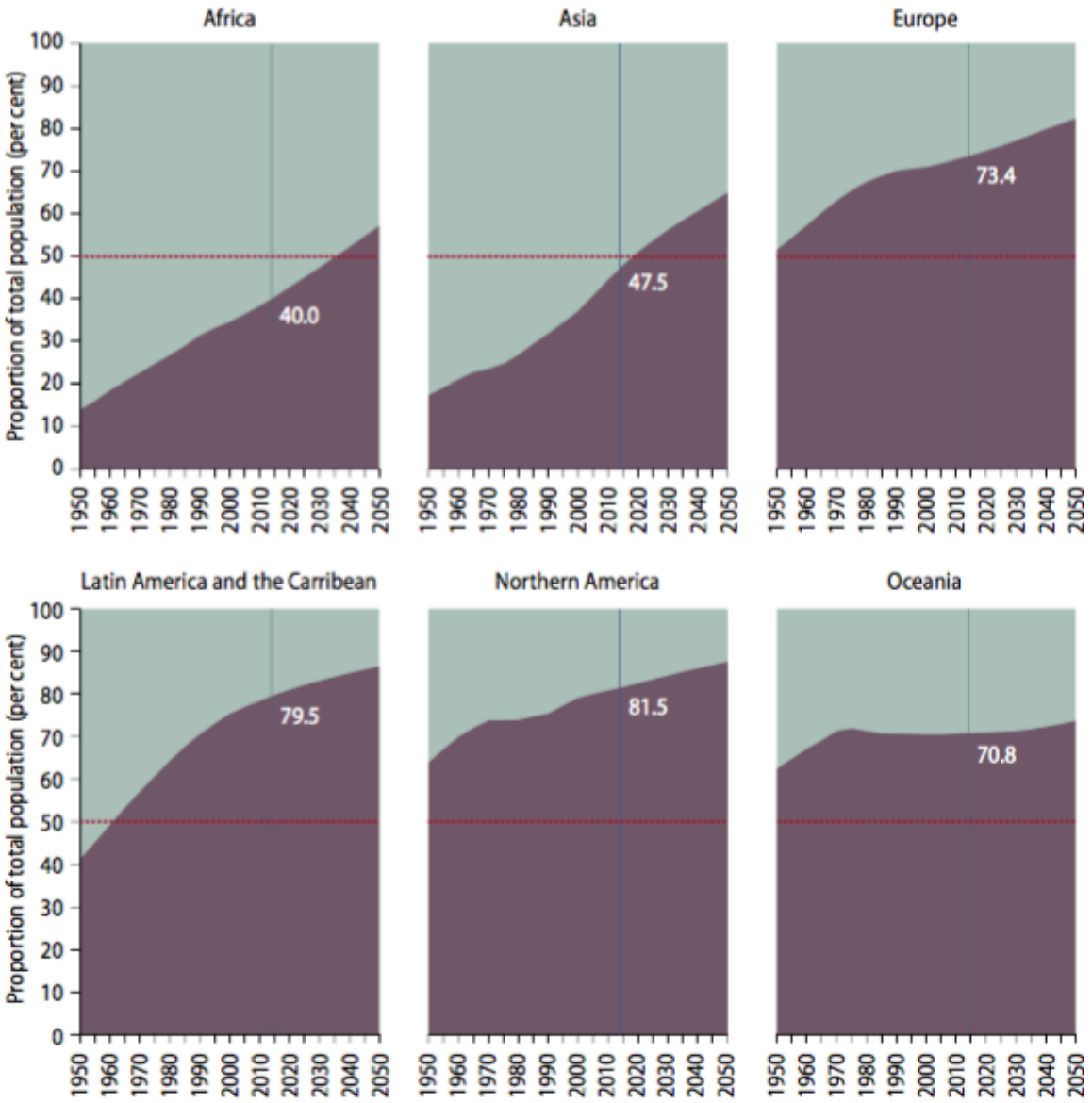


Figure 1: **World population growth, 1950–2050**
Data are from reference 3.

Las diferencias

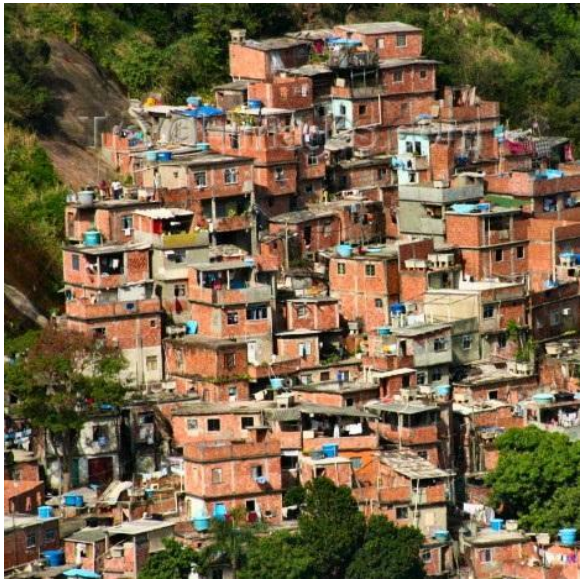


World Urbanization Prospects [highlights]



Las diferencias

A



B

C

D

Las diferencias

Social Science & Medicine 131 (2015) 18–30

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

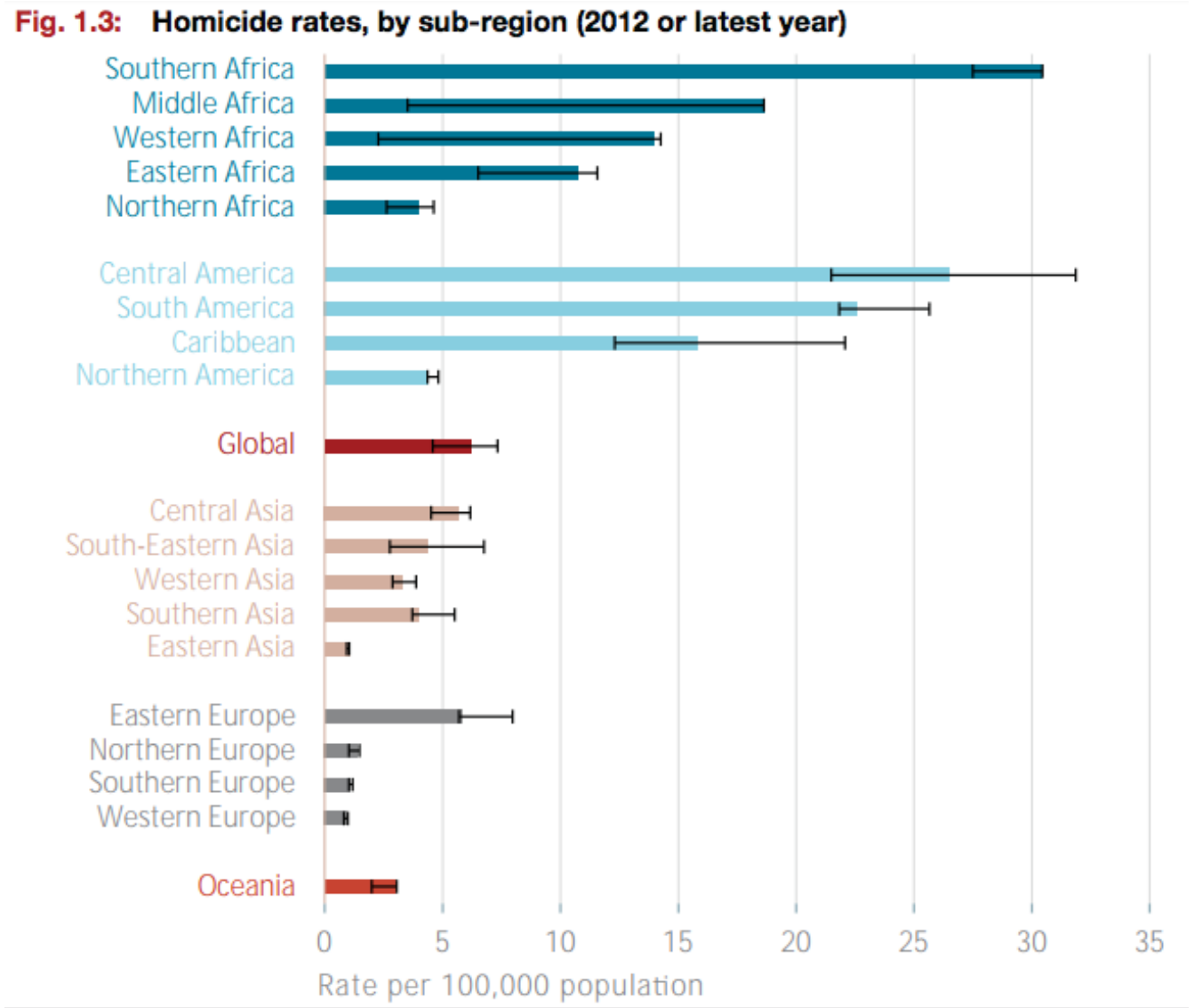
Review

Urban environment interventions linked to the promotion of physical activity: A mixed methods study applied to the urban context of Latin America

Luis F. Gomez [a, *], Rodrigo Sarmiento [a], Maria Fernanda Ordoñez [a], Carlos Felipe Pardo [b], Thiago Hérick de Sá [c], Christina H. Mallarino [a], J. Jaime Miranda [d, e], Janeth Mosquera [f], Diana C. Parra [g, h], Rodrigo Reis [i], D. Alex Quistberg [j]

[a] Departamento de Medicina Preventiva y Social, Facultad de Medicina, Pontificia Universidad Javeriana, Colombia
[b] Fundación Despacio, Colombia
[c] Núcleo de Pesquisas Epidemioloógicas em Nutrição e Saúde, Faculdade de Saúde Pública, Universidade de São Paulo, Brazil
[d] CRONICAS Center of Excellence in Chronic Diseases, Universidad Peruana Cayetano Heredia, Lima, Peru
[e] Department of Medicine, School of Medicine, Universidad Peruana Cayetano Heredia, Lima, Peru
[f] Grupo de Epidemiología y Salud Poblacional (GESP), Escuela de Salud Pública Universidad del Valle, Colombia
[g] Centro de Investigaciones Epidemiologicas en Nutricion y Salud, Departamento de Nutricion, Escuela e Salud Publica, Universidad de Sao Paulo, Sao Paulo, SP. Brazil

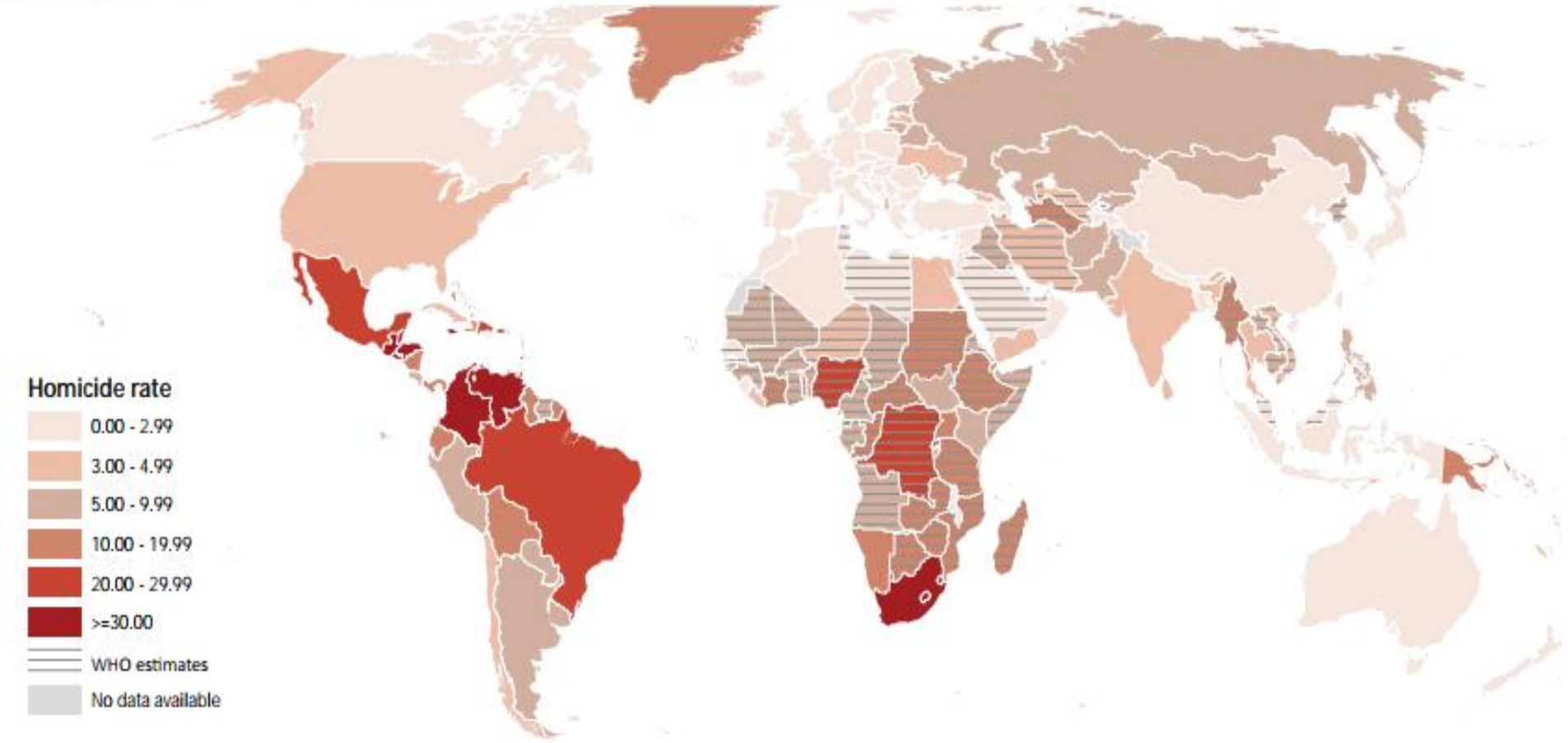
Las diferencias



Source: UNODC Homicide Statistics (2013).

Las diferencias

Map 1.1: Homicide rates, by country or territory (2012 or latest year)



Source: UNODC Homicide Statistics (2013).

Las diferencias

Belgium

Australia

U.K.

U.S.A

Sweden

New Zeland

Canadá

Spain

Brazil

Colombia

México

Czech Republic

Hong Kong

Denmark

OBJECTIVE: To accurately assess the effect of built environment variables upon physical activity using pooled data from all the studied countries

Las diferencias

Las diferencias

METHODOLOGY Open Access

International comparison of observation-specific spatial buffers: maximizing the ability to estimate physical activity

Lawrence D. Frank[1,2*], Eric H. Fox[2], Jared M. Ulmer[2], James E. Chapman[2], Suzanne E. Kershaw[2], James F. Sallis[3], Terry L. Conway[3], Ester Cerin[4,5], Kelli L. Cain[3], Marc A. Adams[6], Graham R. Smith[7], Erica Hinckson[8], Suzanne Mavoa[9,10], Lars B. Christiansen[11], Adriano Akira F. Hino[12], Adalberto A. S. Lopes[13] and Jasper Schipperijn[11]

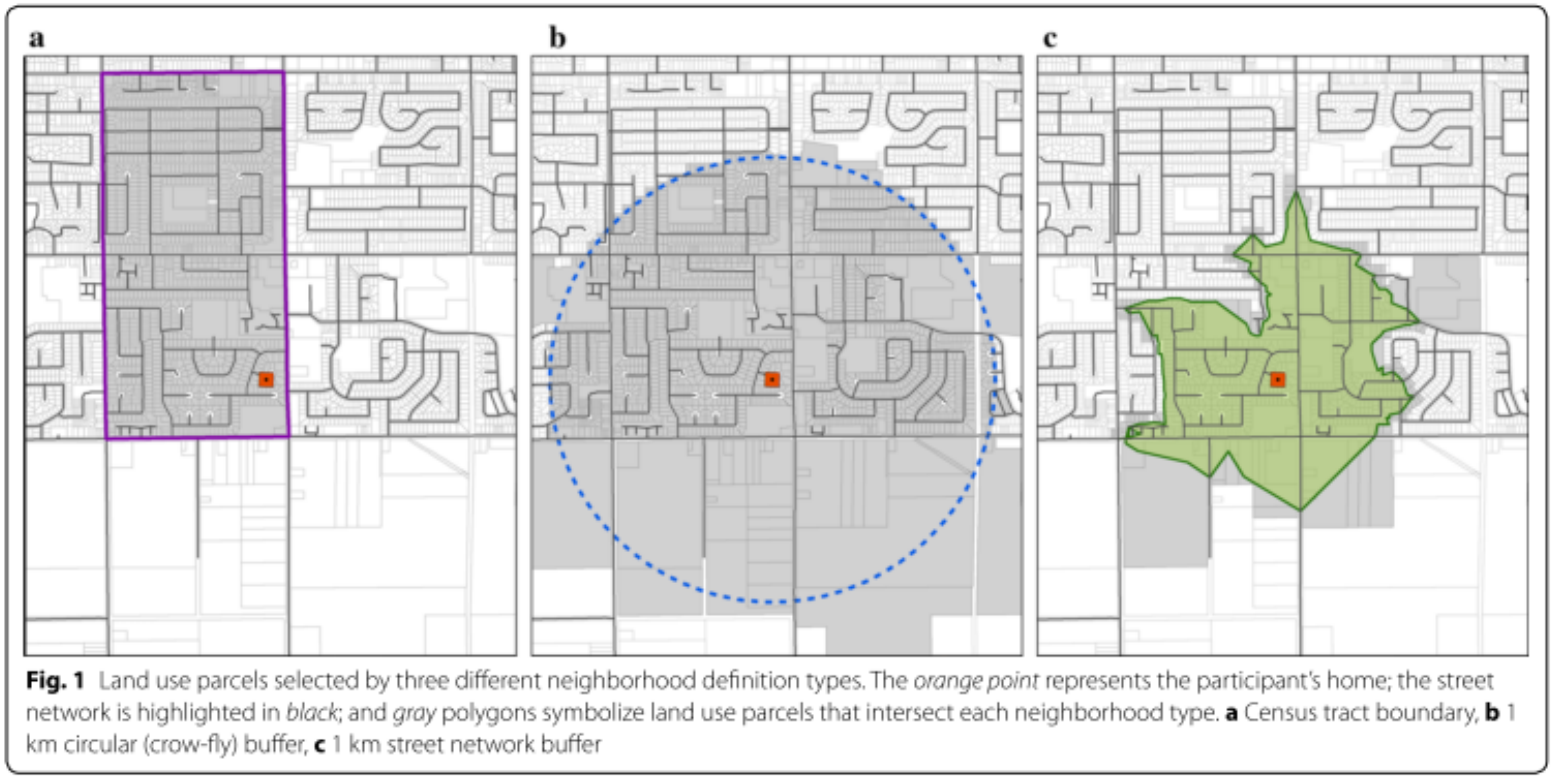


Fig. 1 Land use parcels selected by three different neighborhood definition types. The *orange point* represents the participant's home; the street network is highlighted in *black*; and *gray* polygons symbolize land use parcels that intersect each neighborhood type. **a** Census tract boundary, **b** 1 km circular (crow-fly) buffer, **c** 1 km street network buffer

Las diferencias

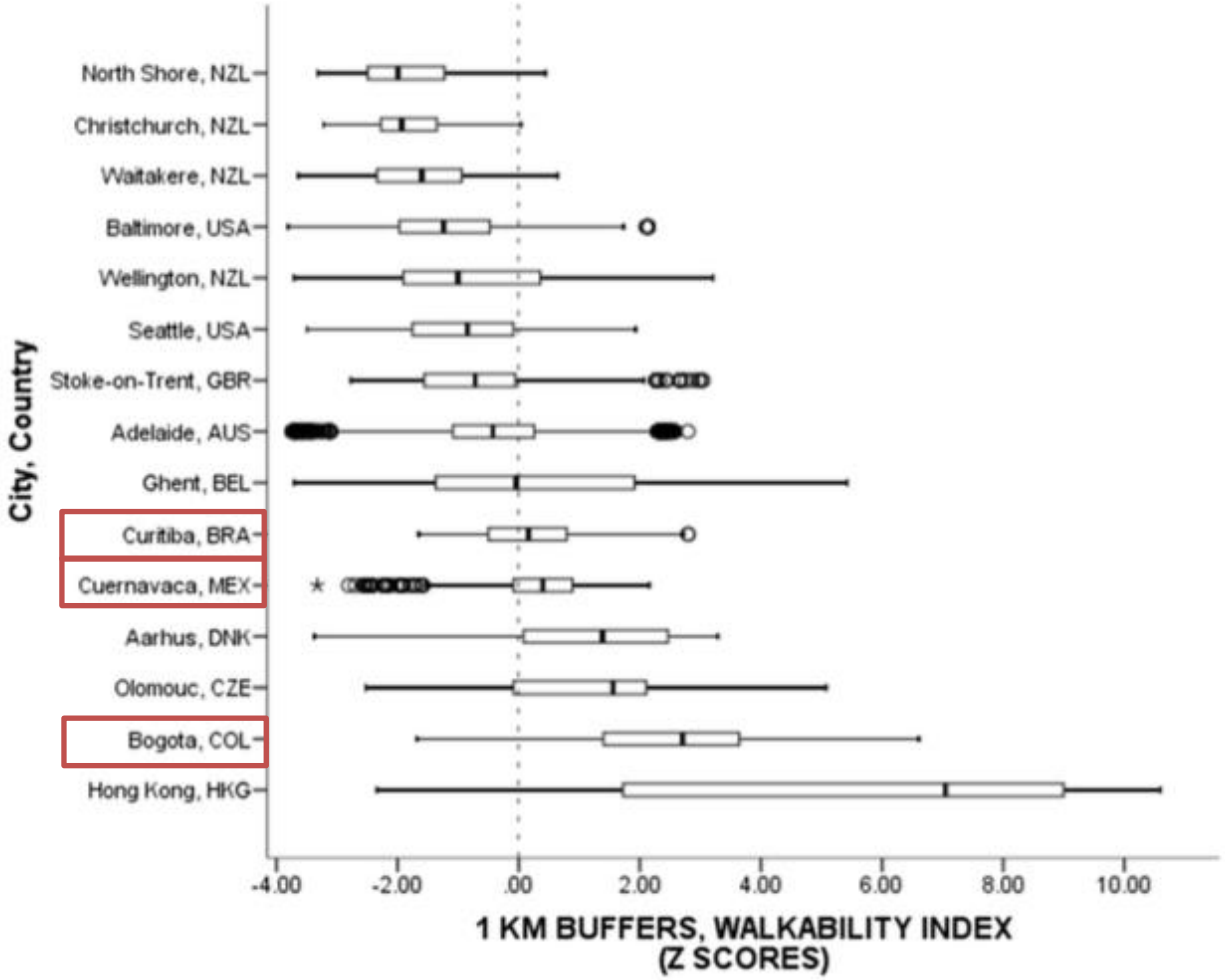


Figure 5 Walkability scores across cities and countries within participants' 1-km network buffer. [1]Circles are outliers that extend past the whiskers and asterisks represent extreme outliers defined as values greater than three times the length of the interquartile range. [2]Walkability z-score equaled the sum of z-scores for residential density, land use mix, and intersection density. Z-scores allowed for standardized pooled standard deviations necessary for comparisons across countries.

Las diferencias

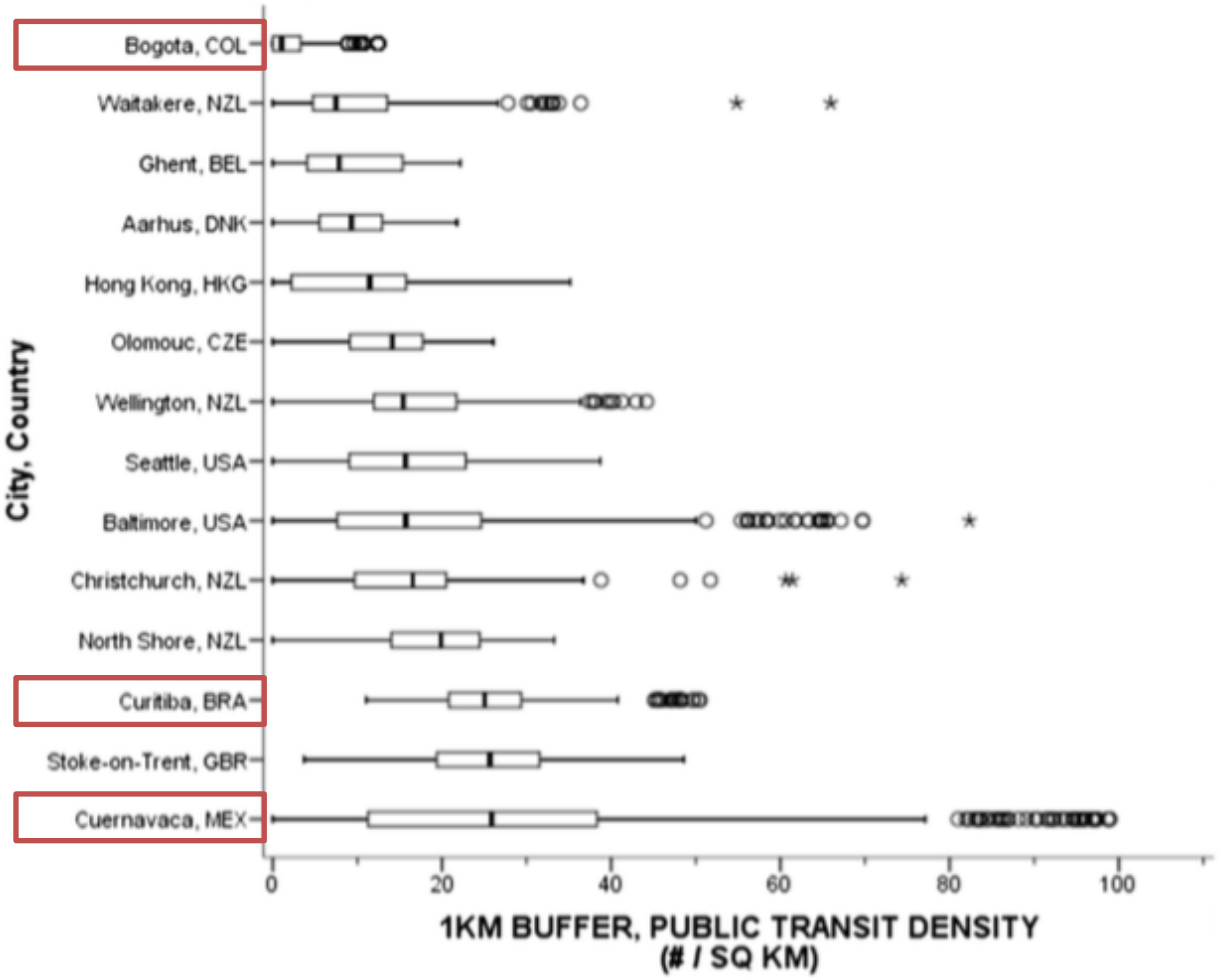
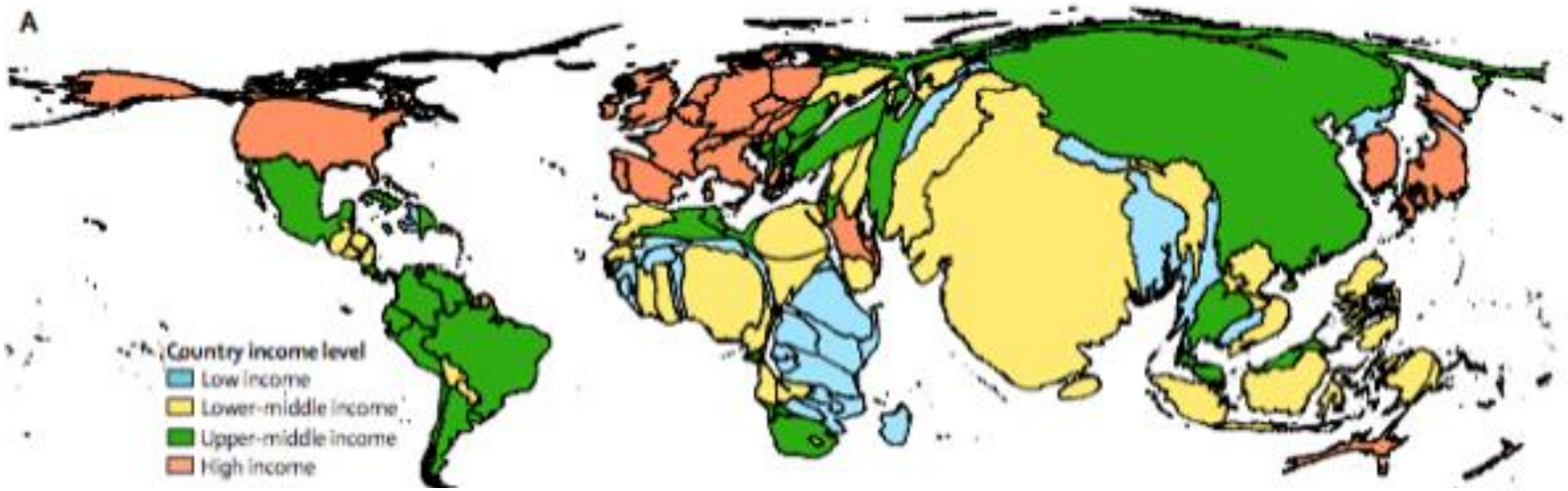


Figure 7 Public transportation stop density using participants' 1-km network buffers across cities and countries. Circles are outliers that extend past the whiskers and asterisks represent extreme outliers defined as values greater than three times the length of the interquartile range.

Las diferencias

A. Map showing country area by population size



B. Map showing country area by publications on PA-interventions

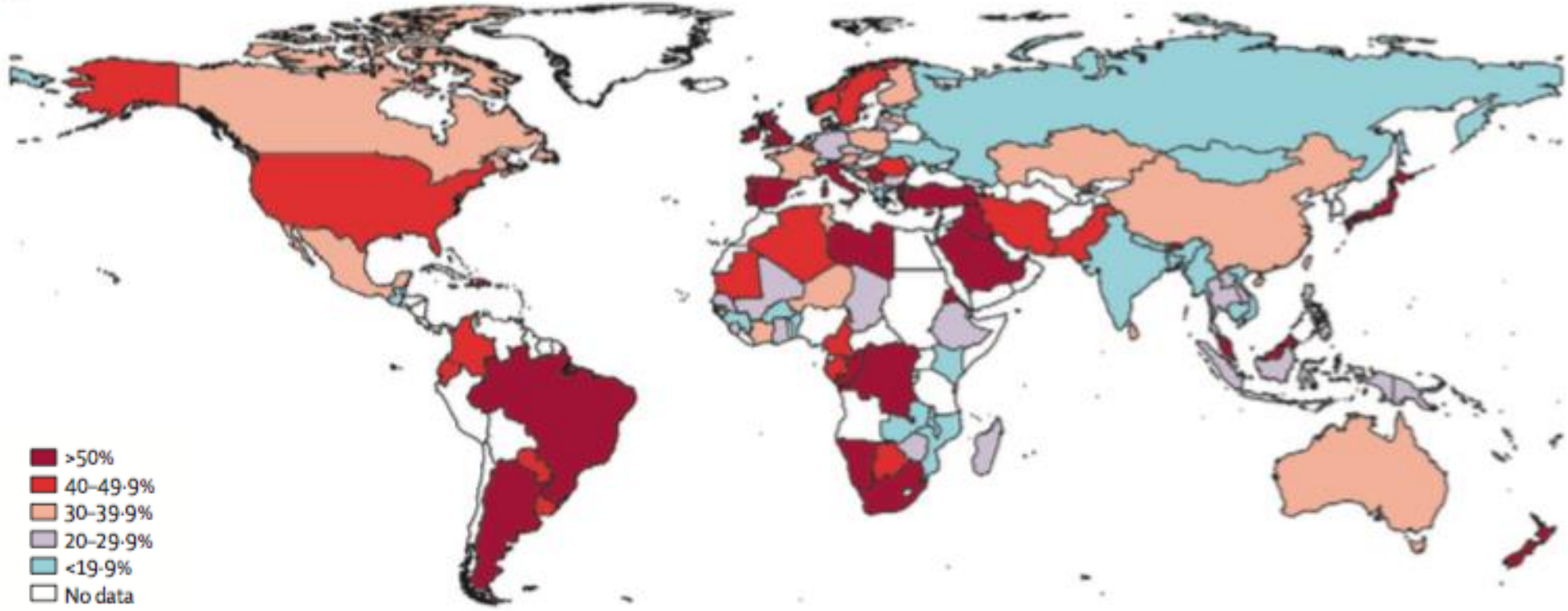
Las diferencias

Physical Activity 1

Global physical activity levels: surveillance progress, pitfalls, and prospects

*Pedro C Hallal, Lars Bo Andersen, Fiona C Bull, Regina Guthold, William Haskell, Ulf Ekelund, for the Lancet Physical Activity Series Working Group**

B



Las diferencias

Physical Activity 1

Global physical activity levels: surveillance progress, pitfalls, and prospects

*Pedro C Hallal, Lars Bo Andersen, Fiona C Bull, Regina Guthold, William Haskell, Ulf Ekelund, for the Lancet Physical Activity Series Working Group**

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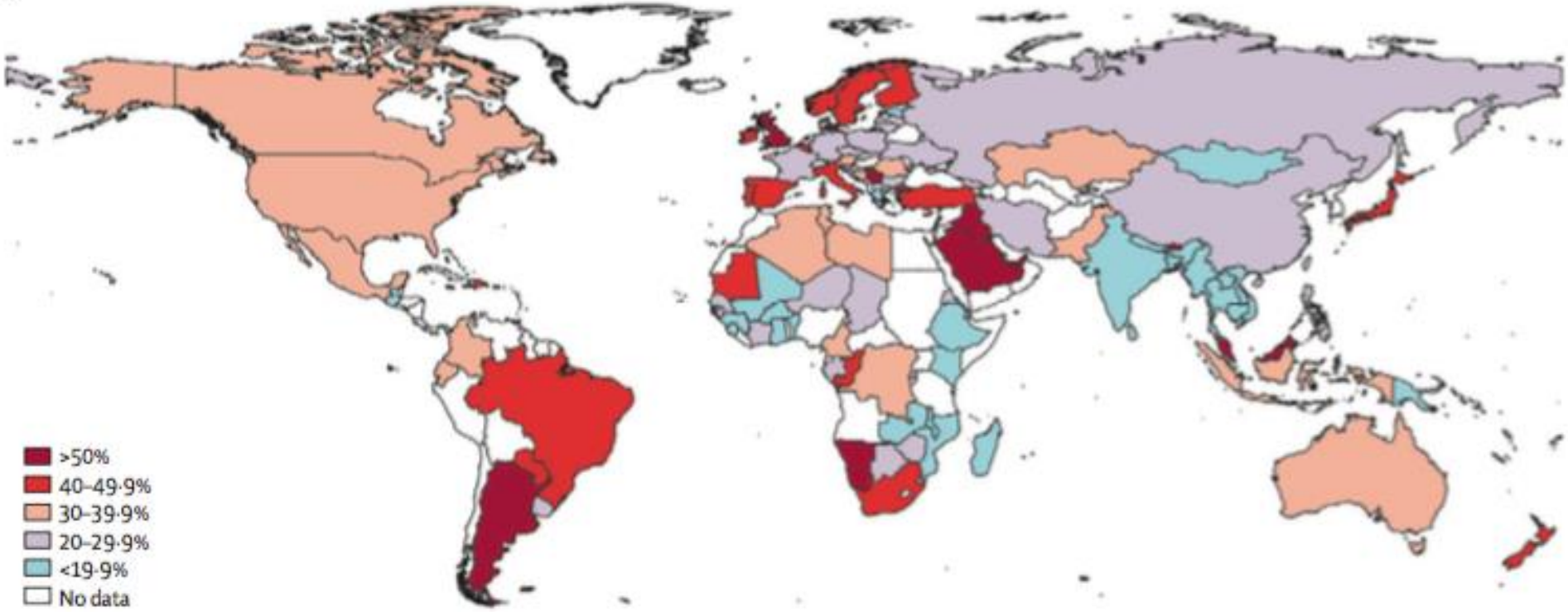
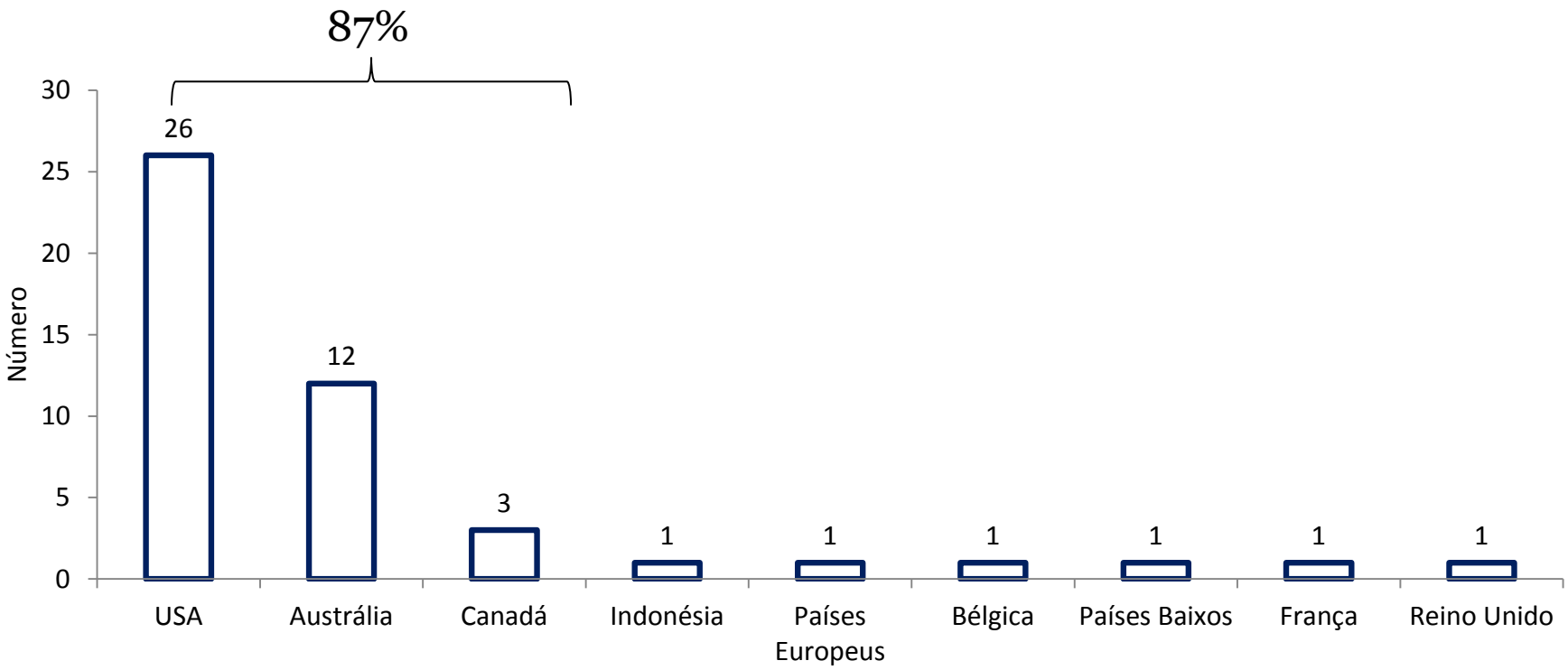


Las diferencias

Potential environmental determinants of physical activity in adults: a systematic review

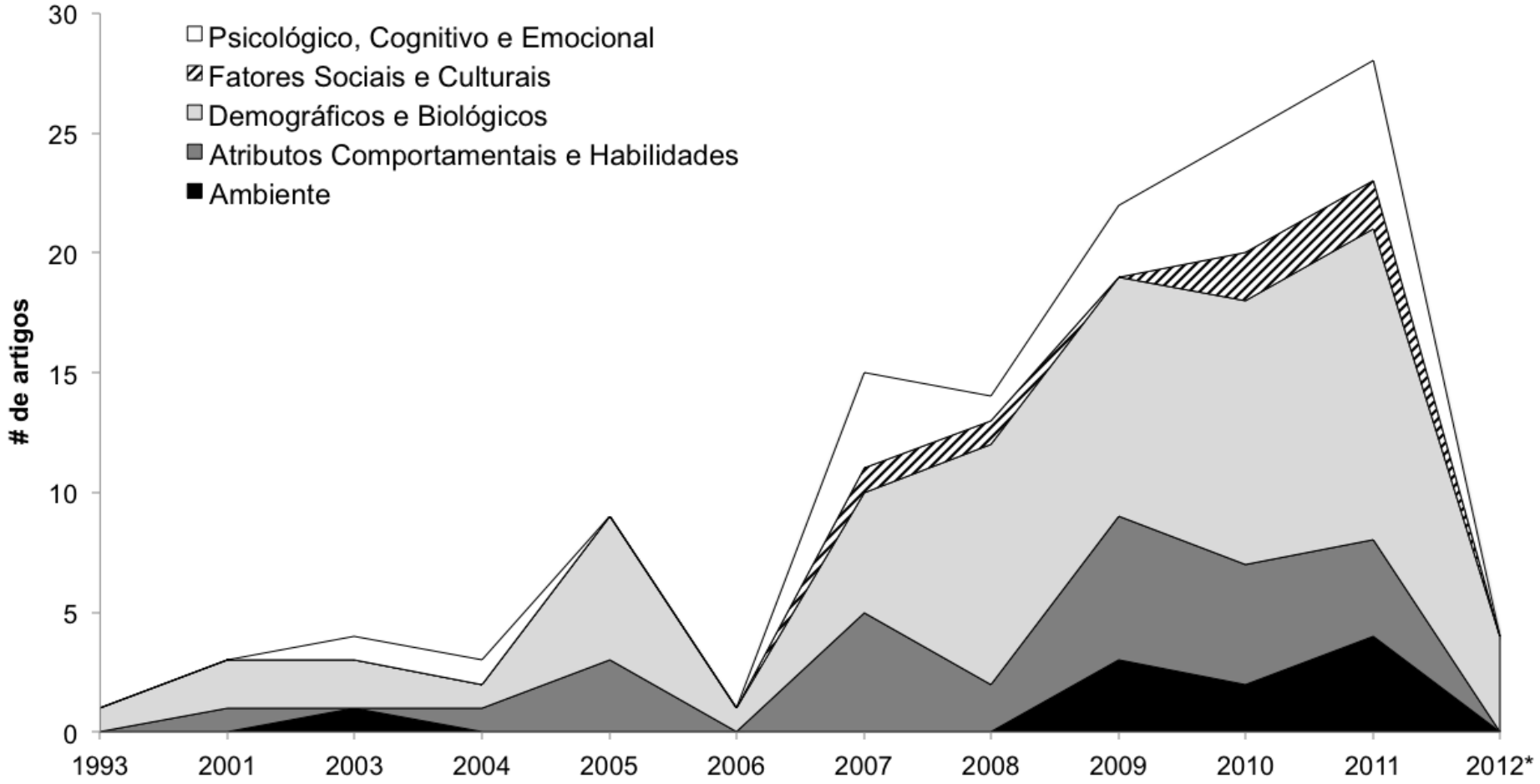
W. Wendel-Vos[1], M. Droomers[1], S. Kremers[2], J. Brug[3] and F. van Lenthe[3]



Wendel-Vos W, Droomers M, Kremers S, Brug J, van Lenthe F. Potential environmental determinants of physical activity in adults: a systematic review. **Obes Rev** 2007;8(5):425-40.

Las diferencias

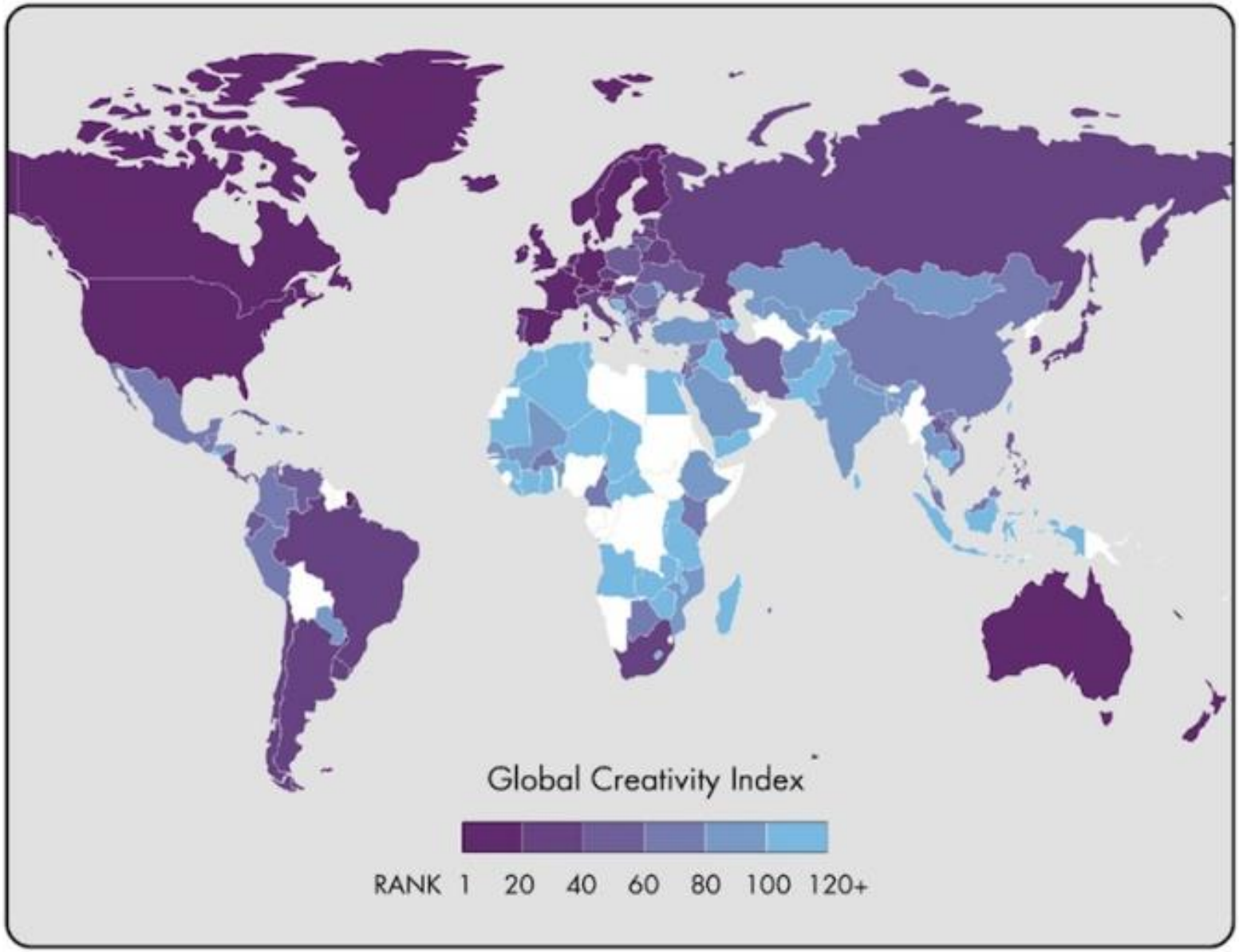
NÚMERO DE ARTIGOS PUBLICADOS SOBRE CORRELATOS DA ATIVIDADE FÍSICA ENTRE OS ANOS DE 1993 E 2012



Como las diferencias afectan

- Grandes centros urbanos
- Desarrollo desordenado
- Informalidad
- Pobreza
- Baja escolaridad
- Desigualdad Social
- Inseguridad

Como las diferencias afectan



Como las diferencias afectan

Como las diferencias afectan

Preventive Medicine 69 (2014) S86–S92

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Overcoming the challenges of conducting physical activity and built environment research in Latin America: IPEN Latin America

Deborah Salvo [a,b,c,*], Rodrigo S. Reis [d,e], Olga L. Sarmiento [f], Michael Pratt [a,f]

[a] Nutrition and Health Sciences, Graduate Division of Biological and Biomedical Sciences, Emory University, Atlanta, GA, USA
[b] Nutrition and Health Research Center, National Institute of Public Health of Mexico, Mexico
[c] Stanford Prevention Research Center, Stanford University School of Medicine, Stanford, CA, USA
[d] Research Group of Physical Activity and Quality of Life (GPAQ), School of Health and Biosciences, Pontificia Universidade Católica do Paraná, Curitiba, Brazil
[e] Department of Physical Education, Universidade Federal do Paraná, Curitiba, Brazil
[f] Schools of Medicine and Government, Los Andes University, Bogota, Colombia

Como las diferencias afectan

- Experiencia académica
- Acceso, cantidad y calidad de los dados
- Especificidad sociopolítica y cultura
  - Selección de los participantes de las investigaciones
  - Bajo nivel de escolaridad
  - Reglamentación locales (cuestiones éticas)
  - Seguridad
- Apropiación de las medidas
- Seguridad

Como las diferencias afectan

Akira em Bogotá (2009)

Deborah Salvo (2010)

Andrea Ramírez (2011)

Accesso, cantidad y calidad

Accesso, cantidad y calidad

Especificidad, sociopolítica y cultural

Países mas desarrollados	Brasil, Colômbia y Mexico
Selección basada en sorteo de número de teléfono o código postal	Encuesta domiciliar
Envío del cuestionario y acelerómetro por correo	Entrega en la casa
Cuestionario autoreportado	Entrevista
Incentivos ($) para participación	Reporte
Cultura de participar de investigaciones	Carisma y credibilidad

Especificidad, sociopolítica y cultural

Apropriación de las medidas

Physical Activity Resource Assessment Instrument (PARA)
Instrumento para avaliação de estruturas para atividade física - Versão 1.2

1. Data: / / 2. Avaliador: 3. ID Local: 4a. Horário inicial: 4b. Horário Final:
Contato do coordenador de campo: _____

5. Tipo da estrutura:
(1) Parque/Bosque
(2) Praça/Jardim

6. Horário de Funcionamento visível: Sim[1] Não[0] (pule para 8)

	Abre	Fecha
7a. Dia de semana		
7b. Fim de semana		

8. É completamente cercado: Sim[1] Não[0]
9. Sinalização de regras visível: Sim[1] Não[0]
10. Módulo policial no local: Sim[1] Não[0]

11. Estruturas presentes para atividade física:

		(-) Qualidade (+)
a	Campo de futebol (grama)	0 1 2 3
b	Campo de voleibol (grama)	0 1 2 3
c	Cancha de futebol (areia)	0 1 2 3
d	Cancha de voleibol (areia)	0 1 2 3
e	Quadra de futebol (asfalto/cimento)	0 1 2 3
f	Quadra de voleibol (asfalto/cimento)	0 1 2 3
g	Quadra de basquete (asfalto/cimento)	0 1 2 3
h	Quadra de tênis (asfalto/cimento)	0 1 2 3
i	Estação de exercício	0 1 2 3
j	Academia ao ar livre	0 1 2 3
k	Parquinho	0 1 2 3
l	Pista de cam./corrida (asfalto/cimento)	0 1 2 3
m	Trilha de cam./corrida (areia/terra)	0 1 2 3
n	Pista de bicicleta (asfalto/cimento)	0 1 2 3
o	Trilha de bicicleta (areia/corrida)	0 1 2 3
p	Pista de skate/patins/rolimã	0 1 2 3
q	_____	0 1 2 3
r	_____	0 1 2 3
s	_____	0 1 2 3
t	_____	0 1 2 3
u	_____	0 1 2 3
v	_____	0 1 2 3
x	_____	0 1 2 3
y	_____	0 1 2 3
z	_____	0 1 2 3

12. Estruturas para conforto do usuário:

		(-) Qualidade (+)
a	Banheiros (uso gratuito)	0 1 2 3
b	Banheiros (uso pago)	0 1 2 3
c	Bancos	0 1 2 3
d	Bebedouro	0 1 2 3
e	Iluminação	0 1 2 3
f	Mesas de picnic	0 1 2 3
g	Mesas de picnic com cobertura	0 1 2 3
h	Vestiário	0 1 2 3
i	Lixeiras	0 1 2 3

13. Condições de limpeza, estética e segurança:

		(+) Qualidade (-)
a	Vidro quebrado	0 1 2 3
b	Sujeira de animais	0 1 2 3
c	Cachorro solto	0 1 2 3
d	Evidências de uso de alcool	0 1 2 3
e	Pichações	0 1 2 3
f	Lixo espalhado (sujeira)	0 1 2 3
g	Sinais de vandalismo	0 1 2 3
h	Mato ou grama "alta"	0 1 2 3

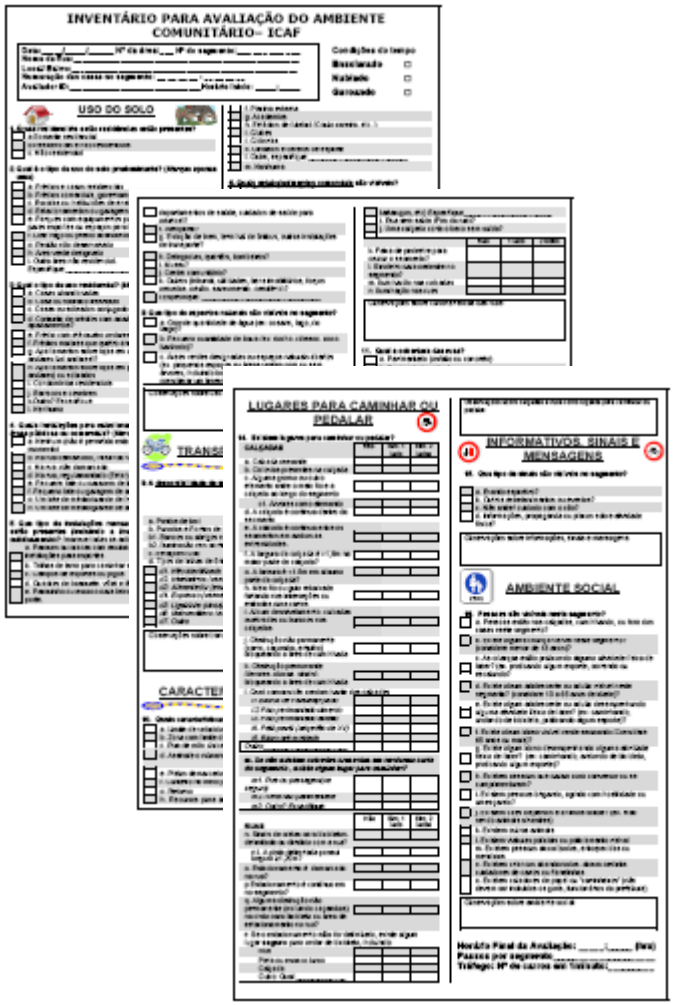
14. Serviços:

a	Lanchonetes	Sim[1]	Não[0]
b	Vendedor ambulante	Sim[1]	Não[0]
c	Aulas de AF gratuitas	Sim[1]	Não[0]
d	Aulas de AF pagas	Sim[1]	Não[0]
e	Empréstimo de materiais para AF	Sim[1]	Não[0]
f	Locação de materiais para AF	Sim[1]	Não[0]

15. Acessibilidade:

a	Pontos de ônibus	Sim[1]	Não[0]
b	Pontos de táxi	Sim[1]	Não[0]
c	Estacionamento p/ carros	Sim[1]	Não[0]
d	Ciclovia	Sim[1]	Não[0]
e	Bicicletário	Sim[1]	Não[0]

Apropriación de las medidas



Hino AAF, Reis RS, Florindo AA. Ambiente construído e atividade física: uma breve revisão dos métodos de avaliação. RBCDH. 2010;12(5):387–94.

Apropriación de las medidas

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Where Latin Americans are physically active, and why does it matter? Findings from the IPEN-adult study in Bogota, Colombia; Cuernavaca, Mexico; and Curitiba, Brazil

Deborah Salvo [a,*], Olga L. Sarmiento [b], Rodrigo S. Reis [c,d], Adriano A.F. Hino [c], Manuel A. Bolivar [b,e], Pablo D. Lemoine [b], Priscilla B. Gonçalves [c,d], Michael Pratt [f]

[a] Department of Epidemiology, Human Genetics and Environmental Sciences, University of Texas Health Science Center at
[b] Schools of Medicine and Government, Universidad de los Andes, Bogotá, Colombia
[c] School of Health and Biosciences, Pontifical Catholic University of Parana, Curitiba, Brazil
[d] Federal University of Parana, Curitiba, Brazil
[e] Center for Optimization and Applied Probability (COPA), Universidad de los Andes, Bogotá, Colombia
[f] Institute of Public Health, Department of Family Medicine and Public Health, School of Medicine, University of California,

REVIEWS

Journal of Physical Activity and Health, 2010, 7(Suppl 2), S259-S264

Lessons Learned After 10 Years of IPAQ Use in Brazil and Colombia

Pedro C. Hallal, Luis Fernando Gomez, Diana C. Parra, Felipe Lobelo, Janeth Mosquera, Alex A. Florindo, Rodrigo S. Reis, Michael Pratt, and Olga L. Sarmiento

Background: To describe the lessons learned after 10 years of use of the International Physical Activity Questionnaire (IPAQ) in Brazil and Colombia, with special emphasis on recommendations for future research in Latin America using this instrument. ***Methods:*** We present an analytical commentary, based on data from a review of the Latin American literature, as well as expert consultation and the authors' experience in administering IPAQ to over 43,000 individuals in Brazil and Colombia between 1998 and 2008. ***Results:*** Validation studies in Latin America suggest that the IPAQ has high reliability and moderate criteria validity in comparison with accelerometers. Cognitive interviews suggested that the occupational and housework sections of the long IPAQ lead to confusion among respondents, and there is evidence that these sections generate overestimated scores of physical activity. Because the short IPAQ considers the 4 physical activity domains altogether, people tend to provide inaccurate answers to it as well. ***Conclusions:*** Use of the leisure-time and transport sections of the long IPAQ is recommended for surveillance and studies aimed at documenting physical activity levels in Latin America. Use of the short IPAQ should be avoided, except for maintaining consistency in surveillance when it has already been used at baseline.

Las diferencias

Revista Brasileira de Cineantropometria & Desempenho Humano ISSN 1415-8426

Artigo original

Leticia de Matos Malavasi [1]
Maria de Fátima da Silva Duarte [2]
Jorge Both [3]
Rodrigo Siqueira Reis [4]

ESCALA DE MOBILIDADE ATIVA NO AMBIENTE COMUNITÁRIO – NEWS BRASIL: RETRADUÇÃO E REPRODUTIBILIDADE

NEIGHBORHOOD WALKABILITY SCALE (NEWS - BRAZIL): BACK TRANSLATION AND RELIABILITY

RESUMO

Existem, no Brasil, poucos instrumentos para avaliar a relação entre o ambiente físico e a prática de atividades físicas. O objetivo do estudo foi analisar a tradução, a retradução e a reprodutibilidade do questionário *NEWS* (*Neighborhood Environment Walkability Scale*) para o português do Brasil. Os procedimentos metodológicos foram estruturados em duas etapas. Primeiramente, efetuou-se a tradução e a retradução do *NEWS* com o intuito de verificar a linguagem do instrumento. Em seguida, realizou-se a reprodutibilidade do questionário por meio de teste e re-teste. A amostra desta pesquisa teve a participação de 75 pessoas (45 mulheres e 30 homens, com média de 33 ± 15 anos). A correlação intraclasse, a fidedignidade para as dimensões, o teste de correlação de *Spearman* e a correlação intraclasse para os indicadores de cada dimensão deste instrumento foram analisados com o auxílio do pacote estatístico SPSS (versão 11.0). O nível de significância adotado foi de p<0,05. A análise dos resultados revelou que o valor α total do questionário (0,8042) pode ser considerado como um bom coeficiente de reprodutibilidade. As dimensões avaliadas pelo questionário apresentaram índices que foram considerados de forte correlação (R = 0,98 -1,00) e de boa fidedignidade (0,655 < α < 0,904). Nos indicadores, obtiveram-se índices de moderado a forte de reprodutibilidade (0,55 < r_s <0,99) e forte correlação (0,98 < R <1,00). De acordo com os resultados, conclui-se que a tradução, a retradução e a reprodutibilidade do questionário *NEWS* - Brasil apresentaram parâmetros aceitáveis. Portanto, o *NEWS* Brasil poderá ser utilizado para conhecer a relação entre ambiente/atividade física na comunidade.

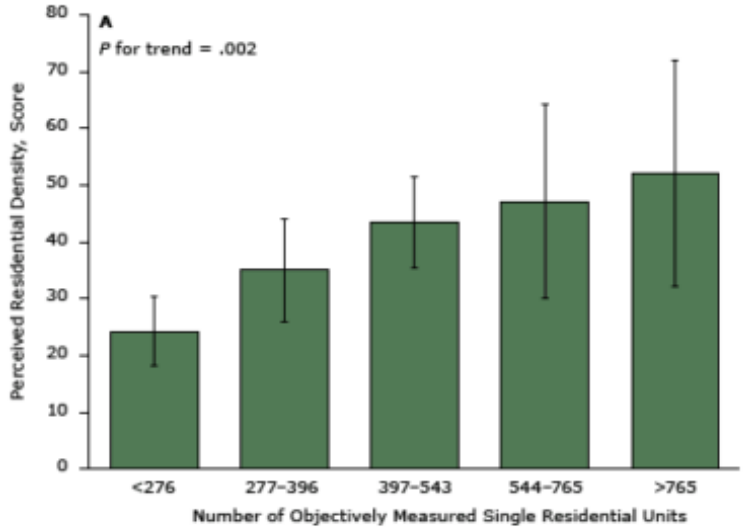
Palavras-chaves: Barreiras ambientais; Mobilidade; Validação de questionário.

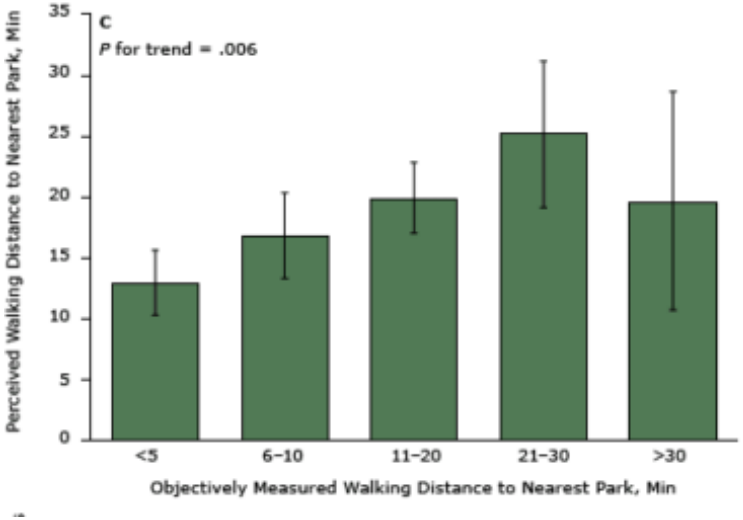
ABSTRACT

In Brazil, there are few validated scales that establish the relationship between environmental barriers and physical activity. Therefore, the aim of this study was to analyze the translation, back translation and reliability of the Neighborhood Environment Walkability Scale (NEWS) into Brazilian Portuguese. The methodological procedures were structured in two phases. The first phase was to translate and back translate NEWS to verify the instrument language. The second phase was he test and re-test reliability of the questionnaire. The sample was composed of 75 people (45 women and 30 men, mean age of 33 ± 15 years). The statistical analyses to verify the Brazilian NEWS were performed with the SPSS program (version 11.0) for intra-class correlation and reliability for the dimensions; Spearman correlation test and intra-class correlation for all indicators from this questionnaire. The significance level adopted in this survey was p<0.05. The results in this study demonstrated that the α value of the questionnaire (0.8042) could be considered as a good reliability coefficient. The dimensions evaluated by this instrument presented a strong correlation (R = 0.98 -1.00) and good credibility (0.655 < α < 0.904). The indicators exhibited moderate to strong values for reliability (0.55 < rs < 0.99), and a strong correlation (0.98< R <1.00). According to these results, the Brazilian NEWS questionnaire had acceptable linguistic validity and reliability. Therefore, the Brazilian NEWS questionnaire can be used as an instrument to evaluate the relationship between environmental barriers and physical activity in communities.

Key words: Environment barriers; Walkability; Questionnaire validation.

1 Doutoranda em Educação Física da UIUC – University of Illinois/Urbana-Champaign – USA.
2 Programa de Pós-Graduação em Eduação Física. Universidade Federal de Santa Catarina/Florianópolis/Santa Catarina/Brasil
3 Mestrando em Educação Física do PPGEF/UFSC – Universidade Federal de Santa Catarina/Florianópolis/Santa Catarina/Brasil
4 Professor Doutor da PUC – Pontifícia Universidade Católica do Paraná/Curitiba/Paraná/Brasil





Jáuregui A, Salvo D, Lamadrid-Figueroa H, Hernández B, Rivera-Dommarco JA, Pratt M. Perceived and Objective Measures of Neighborhood Environment for Physical Activity Among Mexican Adults, 2011. *Prev Chronic Dis*. 2016

Seguridad

- Para los entrevistadores:
  - Trabajar en pares
  - Celular
  - No ir en ciertos barrios/sitios
  - Comunicar las autoridades locales
- Para los entrevistados:
  - Uniforme
  - Divulgación
  - Contacto (universidad, grupo de investigación, website)
  - Acelerómetro no rastrea la posición

Ventajas

- Tener certeza de la comprensión
- Medidas objetivas
  - Peso y estatura
- Demonstración de utilización
- ”Bajo” rechazo

Ventajas

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Where Latin Americans are physically active, and why does it matter? Findings from the IPEN-adult study in Bogota, Colombia; Cuernavaca, Mexico; and Curitiba, Brazil

Deborah Salvo [a,*], Olga L. Sarmiento [b], Rodrigo S. Reis [c,d], Adriano A.F. Hino [c], Manuel A. Bolivar [b,e], Pablo D. Lemoine [b], Priscilla B. Gonçalves [c,d], Michael Pratt [f]

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Ventajas

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The built environment and recreational physical activity among adults in Curitiba, Brazil

Adriano A.F. Hino [a,b,*], Rodrigo S. Reis [a,b], Olga L. Sarmiento [c], Diana C. Parra [d], Ross C. Brownson [d,e]

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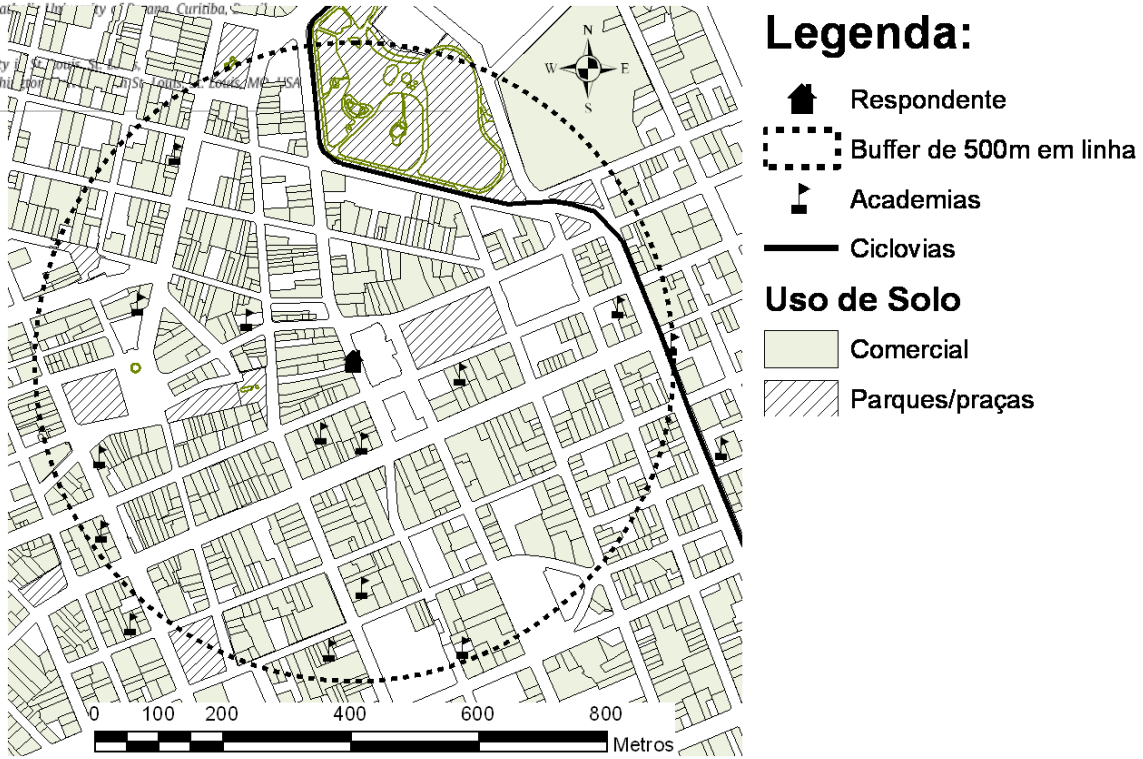
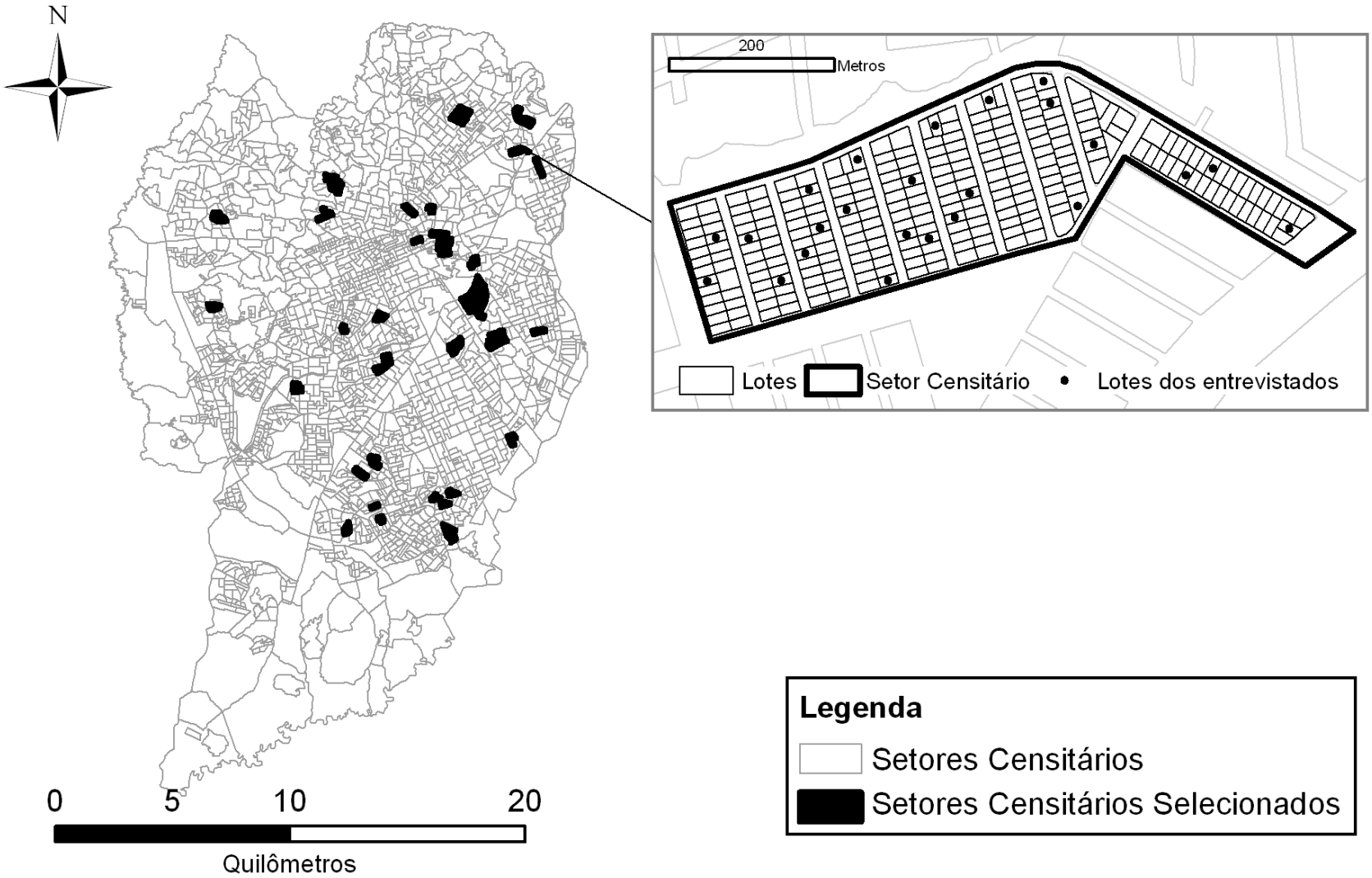
[d] Prevention Research Center in St. Louis, George Warren Brown School of Social Work, Washington University [illegible]
[e] Department of Surgery and Alvin J. Siteman Cancer Center, Washington University School of Medicine, Washi[illegible]



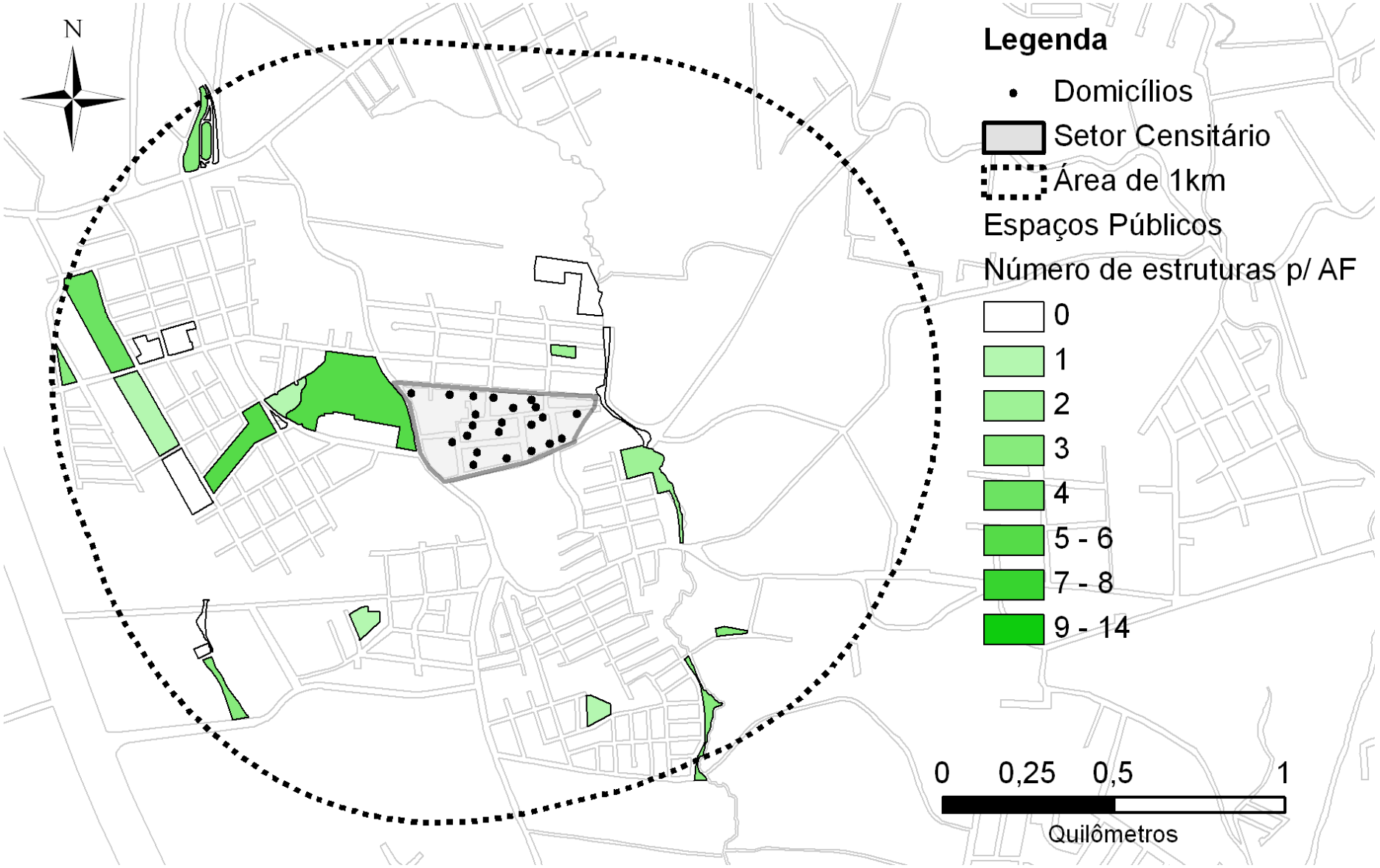
Hino AAF, Reis RS, Florindo AA. Ambiente construído e atividade física: uma breve revisão dos métodos de avaliação. RBCDH. 2010;12(5):387–94.

Ventajas

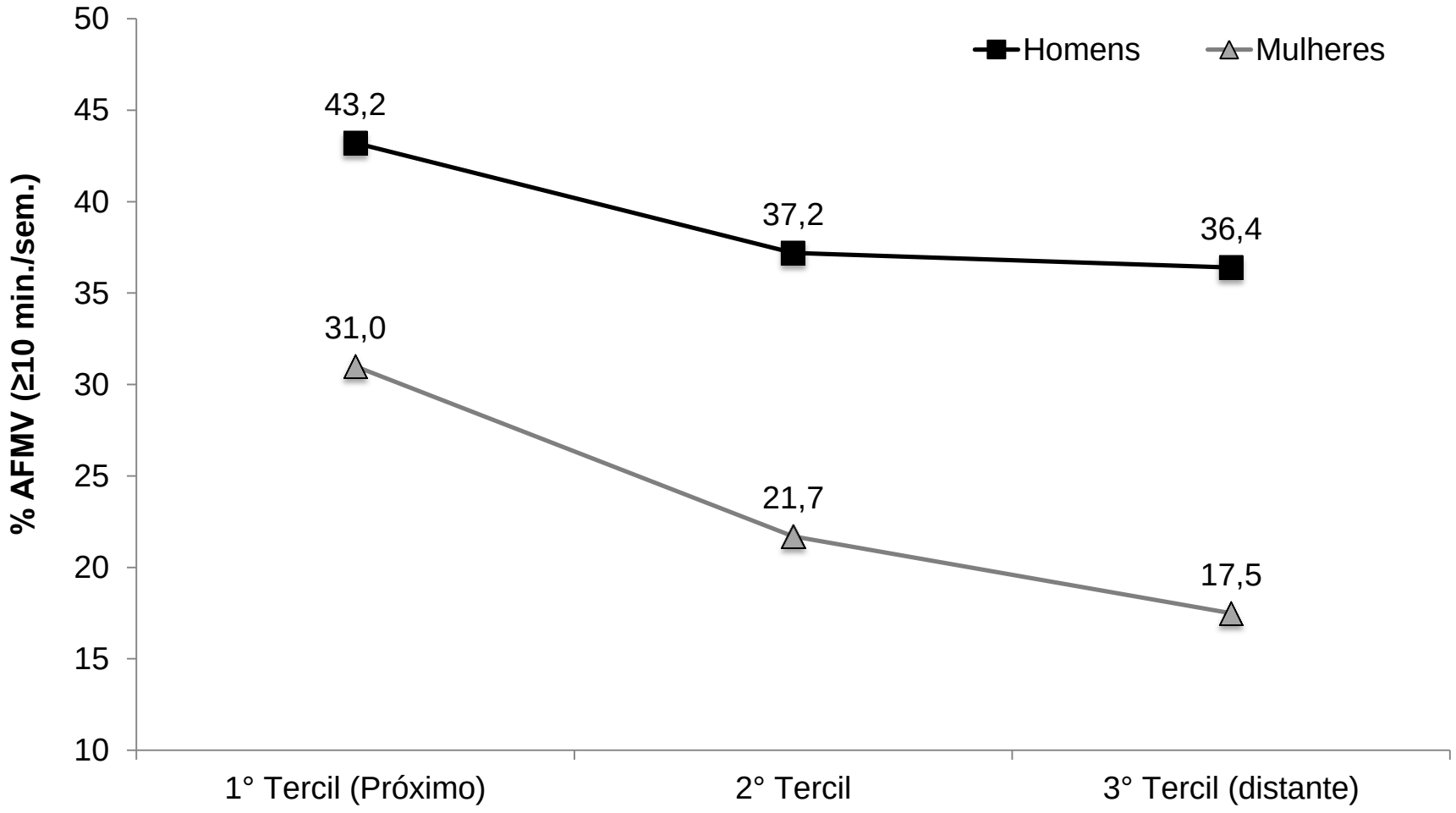


Hino AAF, Rech CR, Gonçalves PB, Hallal PC, Reis RS. Projeto ESPAÇOS de Curitiba, Brasil: aplicabilidade de métodos mistos de pesquisa e informações georreferenciadas em estudos sobre atividade física e ambiente construído. Rev Panam Salud Pública. 2012; 32(3):226–33.

Ventajas

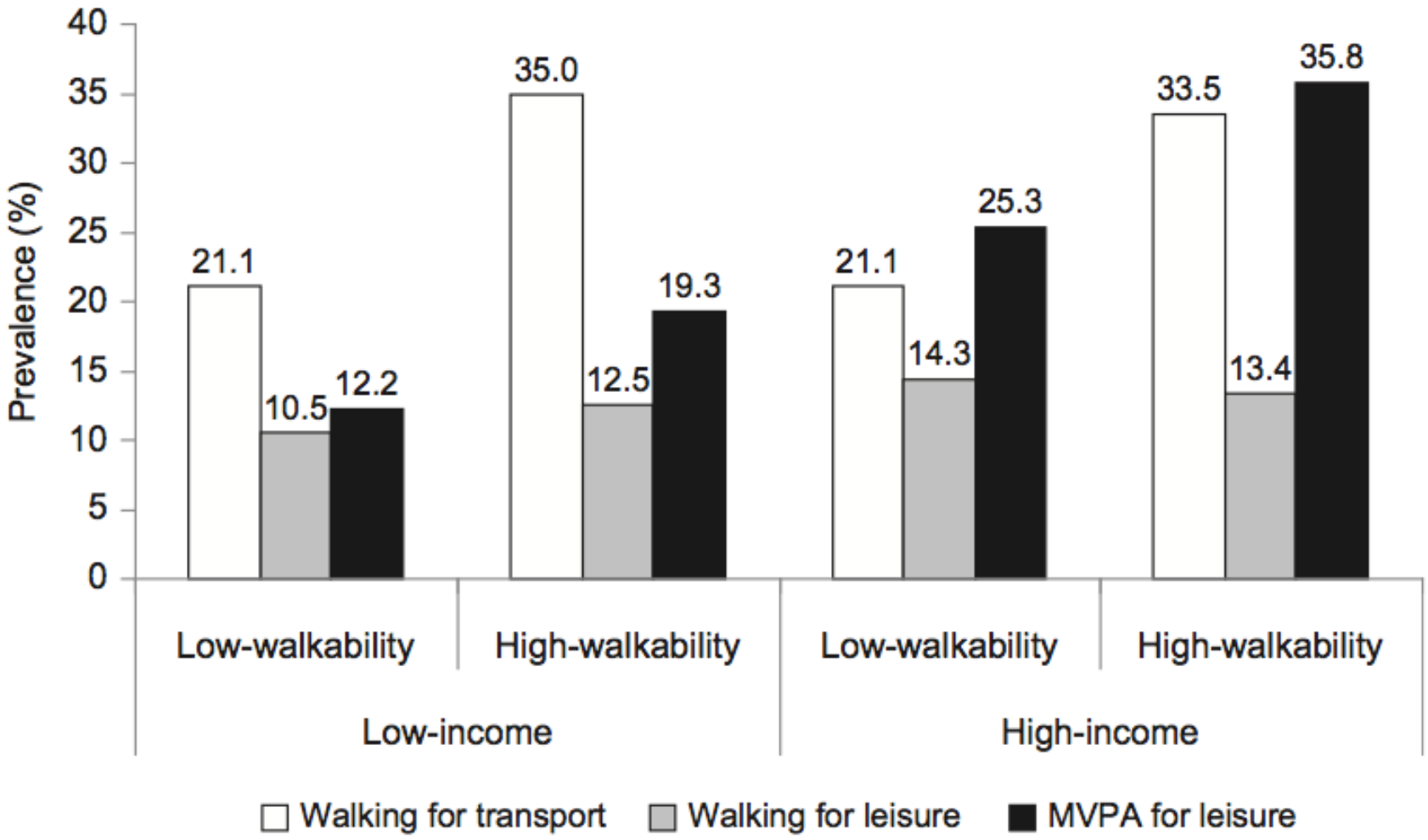

N
Legenda
Domicílios
Setor Censitário
Área de 1km
Espaços Públicos
Número de estruturas p/ AF
0
1
2
3
4
5 - 6
7 - 8
9 - 14
0
0,25
0,5
1
Quilômetros

Ventajas



Distância até o EPL con ≥ 3 estruturas para AF mas próximo

Ventajas



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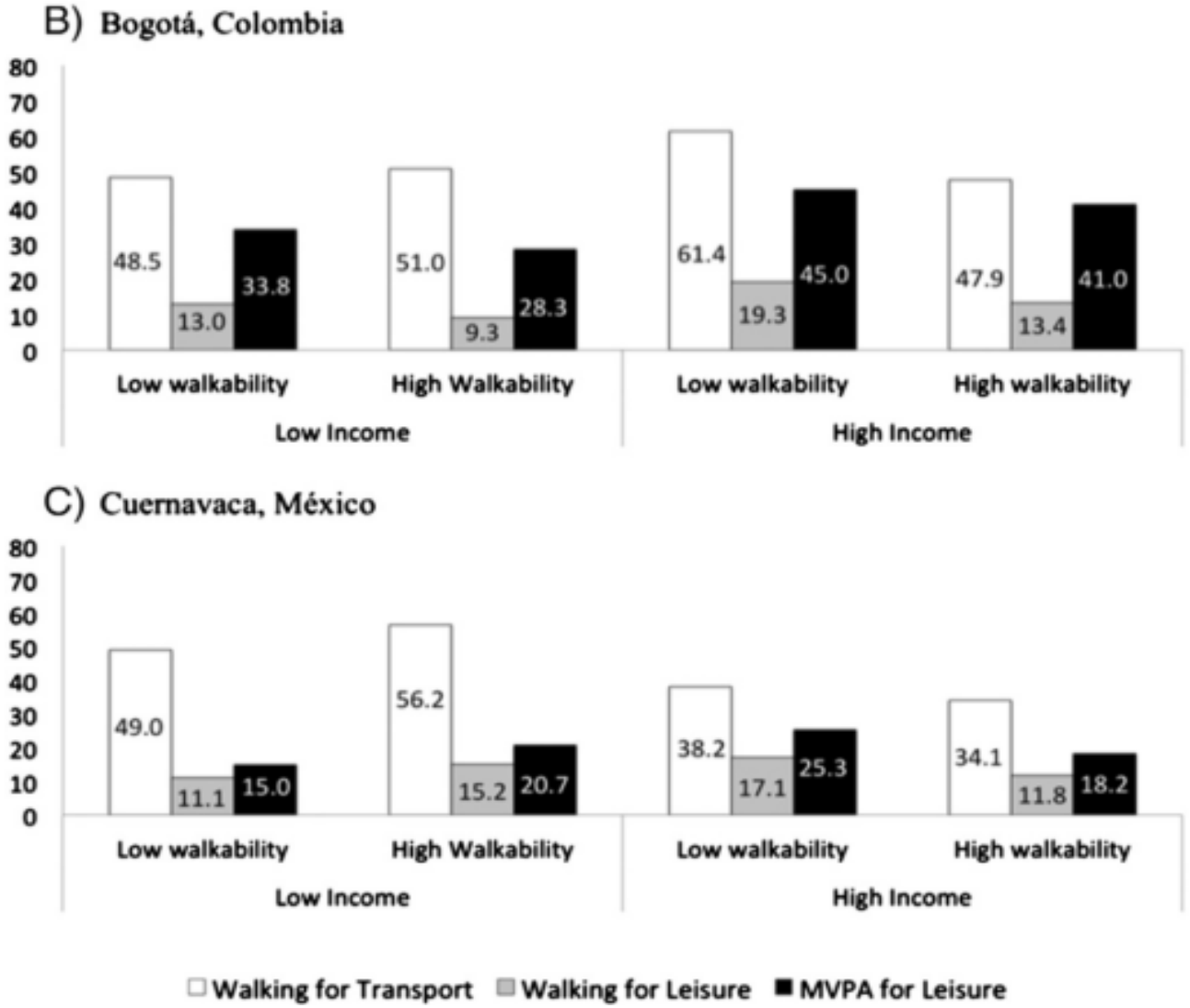
Ventajas



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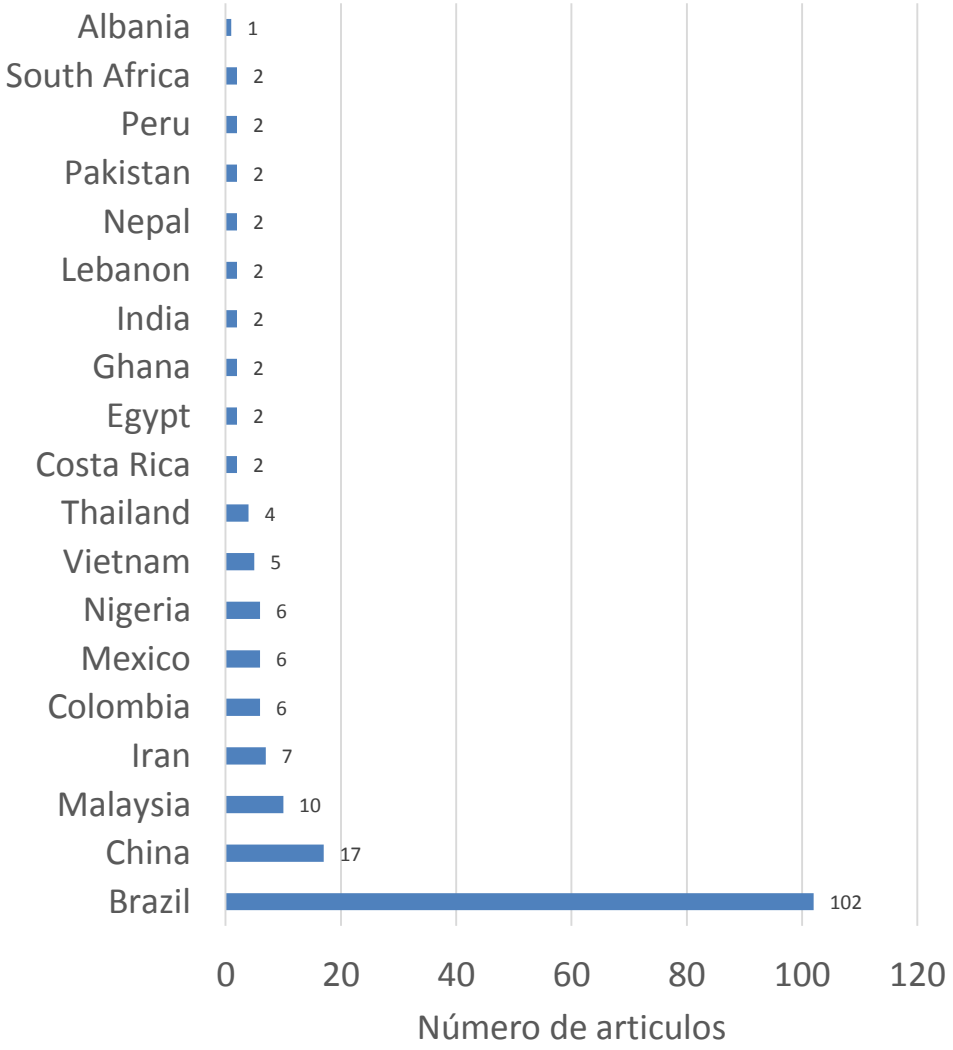
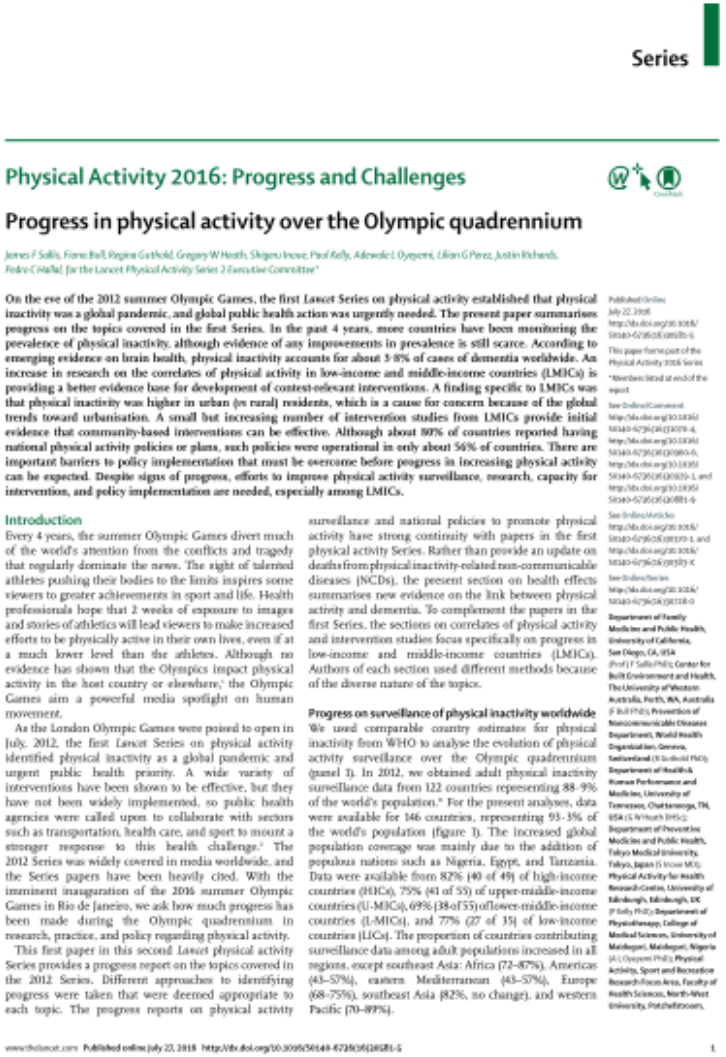
Conclusiones

- Tenemos muchos problemas
  - Social
  - Construido
- Resiliencia
- Criatividad
- Baja escolaridad → capacitación academica
- Evidencias científicas

Conclusiones





Series

Physical Activity 2016: Progress and Challenges

Progress in physical activity over the Olympic quadrennium

James F Sallis, Fiona Bull, Regina Guthold, Gregory W Heath, Shigeru Inoue, Paul Kelly, Adewale L Oyeyemi, Lilian G Perez, Justin Richards, Pedro C Hallal, for the Lancet Physical Activity Series 2 Executive Committee*

On the eve of the 2012 summer Olympic Games, the first Lancet Series on physical activity established that physical inactivity was a global pandemic, and global public health action was urgently needed. The present paper summarises progress on the topics covered in the first Series. In the past 4 years, more countries have been monitoring the prevalence of physical inactivity, although evidence of any improvements in prevalence is still scarce. According to emerging evidence on brain health, physical inactivity accounts for about 3·8% of cases of dementia worldwide. An increase in research on the correlates of physical activity in low-income and middle-income countries (LMICs) is providing a better evidence base for development of context-relevant interventions. A finding specific to LMICs was that physical inactivity was higher in urban (vs rural) residents, which is a cause for concern because of the global trends toward urbanisation. A small but increasing number of intervention studies from LMICs provide initial evidence that community-based interventions can be effective. Although about 80% of countries reported having national physical activity policies or plans, such policies were operational in only about 56% of countries. There are important barriers to policy implementation that must be overcome before progress in increasing physical activity can be expected. Despite signs of progress, efforts to improve physical activity surveillance, research, capacity for intervention, and policy implementation are needed, especially among LMICs.

Introduction

Every 4 years, the summer Olympic Games divert much of the world's attention from the conflicts and tragedy that regularly dominate the news. The sight of talented athletes pushing their bodies to the limits inspires some viewers to greater achievements in sport and life. Health professionals hope that 2 weeks of exposure to images and stories of athletics will lead viewers to make increased efforts to be physically active in their own lives, even if at a much lower level than the athletes. Although no evidence has shown that the Olympics impact physical activity in the host country or elsewhere,[1] the Olympic Games aim a powerful media spotlight on human movement.

As the London Olympic Games were poised to open in July, 2012, the first Lancet Series on physical activity identified physical inactivity as a global pandemic and urgent public health priority. A wide variety of interventions have been shown to be effective, but they have not been widely implemented, so public health agencies were called upon to collaborate with sectors such as transportation, health care, and sport to mount a stronger response to this health challenge.[2] The 2012 Series was widely covered in media worldwide, and the Series papers have been heavily cited. With the imminent inauguration of the 2016 summer Olympic Games in Rio de Janeiro, we ask how much progress has been made during the Olympic quadrennium in research, practice, and policy regarding physical activity.

This first paper in this second Lancet physical activity Series provides a progress report on the topics covered in the 2012 Series. Different approaches to identifying progress were taken that were deemed appropriate to each topic. The progress reports on physical activity surveillance and national policies to promote physical activity have strong continuity with papers in the first physical activity Series. Rather than provide an update on deaths from physical inactivity-related non-communicable diseases (NCDs), the present section on health effects summarises new evidence on the link between physical activity and dementia. To complement the papers in the first Series, the sections on correlates of physical activity and intervention studies focus specifically on progress in low-income and middle-income countries (LMICs). Authors of each section used different methods because of the diverse nature of the topics.

Progress on surveillance of physical inactivity worldwide

We used comparable country estimates for physical inactivity from WHO to analyse the evolution of physical activity surveillance over the Olympic quadrennium (panel 1). In 2012, we obtained adult physical inactivity surveillance data from 122 countries representing 88·9% of the world's population.[4] For the present analyses, data were available for 146 countries, representing 93·3% of the world's population (figure 1). The increased global population coverage was mainly due to the addition of populous nations such as Nigeria, Egypt, and Tanzania. Data were available from 82% (40 of 49) of high-income countries (HICs), 75% (41 of 55) of upper-middle-income countries (U-MICs), 69% (38 of 55) of lower-middle-income countries (L-MICs), and 77% (27 of 35) of low-income countries (LICs). The proportion of countries contributing surveillance data among adult populations increased in all regions, except southeast Asia: Africa (72–87%), Americas (43–57%), eastern Mediterranean (43–57%), Europe (68–75%), southeast Asia (82%, no change), and western Pacific (70–89%).

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