Addressing social determinants of noncommunicable diseases in primary care: a systematic review
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Objective
To explore how primary care organizations assess and subsequently act upon the social determinants of noncommunicable diseases in their local populations.

Methods
For this systematic review we searched the online databases of PubMed®, MEDLINE®, Embase® and the Health Management Information Consortium from inception to 28 June 2019, along with hand-searching of references. Studies of any design that examined a primary care organization assessing social determinants of noncommunicable diseases were included. For quality assessment we used Cochrane’s tool for assessing risk of bias in non-randomized studies of interventions. We used narrative data synthesis to appraise the extent to which the assessments gathered data on the domains of the World Health Organization social determinants of health framework.

Findings
We identified 666 studies of which 17 were included in the review. All studies used descriptive study designs. Clinic-based and household surveys and interviews were more commonly used to assess local social determinants than population-level data. We found no examples of organizations that assessed sociopolitical drivers of noncommunicable diseases; all focused on sociodemographic factors or circumstances of daily living. Nevertheless, the resulting actions to address social determinants ranged from individual-level interventions to system-level policy and planning committees.

Conclusion
Our findings may help policy-makers to consider suitable approaches for assessing and addressing social determinants of health in their domestic context. More rigorous observational and experimental evidence is needed to ascertain whether measuring social determinants leads to interventions which mitigate unmet social needs and reduce health disparities.

Introduction
Primary health care is a whole-of-society approach to health that depends on integrated primary care and essential public health functions; empowered people and communities; and multisectoral policy and action. World Health Organization (WHO) Member States have unanimously committed to use primary health care as the main vehicle for attaining universal health coverage.

Given that health services are thought to be responsible for only a fifth of health outcomes, primary care systems are increasingly being reoriented to proactively assess and address local social determinants of health, particularly the social determinants of noncommunicable diseases. These diseases are responsible for over 70% of global mortality (41 million out of 58 million annual deaths). Socioeconomic factors are associated with exposure to behavioural risk factors for and mortality from noncommunicable diseases, and exposure to noncommunicable disease risk factors, such as poverty, tobacco or unhealthy foods, occurs at the local levels where people live and work. Primary care organizations therefore have a strategic role to play in prevention and control of noncommunicable diseases. This role was emphasized in WHO’s Commission on the Social Determinants of Health 2007 report, Challenging inequity through health systems. Reforming primary care to engage with public health functions in collaboration with community stakeholders is also a way of enacting the commitments made in the Declaration of Astana on revitalizing primary health care in the 21st century.

Social determinants, which have been defined as “the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life,” account for approximately half of all variation in health outcomes. The WHO Commission on the Social Determinants of Health urged Member States to “go beyond contemporary concentration on the immediate causes of disease” to focus on these “causes of the causes.” The Commission’s conceptual framework has three elements covering different domains. First are the sociopolitical factors that influence distributions of health outcomes across populations (such as social and economic policy, cultural norms and societal values). These factors can be distinguished from the sociodemographic factors according to which health is unequally distributed (such as income, education, gender and ethnicity or race) and the circumstances of daily life which more directly influence people’s exposure and vulnerability to adverse health outcomes (such as age, housing and food security, sanitation, health behaviours and access to health care). The Commission’s framework for action on the social determinants of health conceptually differentiates policy interventions in terms of their target population: individuals...
Countries as diverse as Azerbaijan, Ethiopia and the United Kingdom of Great Britain and Northern Ireland are currently reforming their primary care systems to address the social determinants of noncommunicable diseases. Yet it remains unclear how primary care organizations can most effectively collect person- and population-level data to subsequently act upon identified needs.6,24,26 Much of the existing research on assessing social determinants of health has focused on secondary care settings in high-income countries.24–27

To address this gap, we systematically reviewed the literature to collate examples of primary care organizations that had performed assessments of the social determinants of noncommunicable diseases with the intention of subsequently acting upon the knowledge generated. We aimed to determine which social determinants of health are most commonly assessed, the approaches used to collect data, what actions resulted and what barriers and enablers were reported. A secondary aim was to examine whether routine assessments of the social determinants of health were more likely to report actions than were non-routine, or “one-off” assessments.

Methods

Our systematic review followed Cochrane guidance26 and was reported in accordance with the 2009 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement.29 The protocol was registered with the PROSPERO prospective register of systematic reviews in July 2019 (CRD42019141291).

Search strategy

We searched the online databases of MEDLINE, Embase, PubMed and the Health Management Information Consortium on 28 June 2019 without restrictions on language, period or country (the full search strategy is available in the data repository).30 We also manually searched the reference lists of included studies and contacted key authors and policy experts at WHO to find any additional studies.

We included all study designs that examined one or more historic or contemporary primary care organization committing resources to assessing the social determinants of noncommunicable diseases in their local community with the intention of subsequently intervening. Studies that described the assessment activities of specific primary care staff cadres, such as community health workers, were also included.

We excluded papers such as editorials and reviews that did not present primary data, but we hand-searched their reference lists and included any eligible original studies. As our focus was real-world practice, we excluded papers that only described theoretical models or unrealized organizational plans. We excluded papers that described single-issue initiatives for narrow subpopulations if these were not based on community-wide assessments.

We excluded studies that focused exclusively on paediatric populations, unless the primary care organization was a community-based paediatric service, so that their entire patient population was included. We also excluded studies that did not report the intention of assessing impact on services or health outcomes.

Two researchers independently screened all titles and abstracts and then the full texts. Cohen’s kappa coefficient (κ) and percentage agreement were calculated for both stages of screening.31 Disagreement was resolved by discussion and arbitration by a third researcher if necessary.

Data extraction, synthesis and analysis

Two researchers independently extracted the data using a form developed from the Cochrane template,26 including study design, setting, assessment approach, factors identified by the assessment and subsequent community-level actions. We used narrative data synthesis to appraise whether the health assessments in the included studies gathered data on the domains of the WHO social determinants of health framework.23

We used also used Geoffrey Rose’s population versus high risk conceptual approach to assess whether different organizations assessed and addressed social determinants of health at the individual and/or community levels.32 Given the lack of formal consensus around the precise boundaries of the social determinants of health,23,51 we included all data that the authors self-identified as social determinants, including individual-level sociodemographic characteristics.

Risk of bias assessment

Two reviewers independently assessed the risk of bias of each included study using Cochrane’s risk of bias tool for non-randomized studies of interventions.33 Guided by the Cochrane handbook,34 we rated studies as having low, moderate, serious or critical risk of bias across seven domains and overall.

Results

Search results

Our searches identified 666 records of which 17 studies from 15 different primary care organizations met the inclusion criteria after two stages of screening (Fig. 1). Cohen’s κ was > 0.80 and agreement was > 95% at every stage of screening.

Study characteristics

The characteristics of the included studies are summarized in Table 1. All studies took place in high- or middle-income countries, with nine studies conducted in the United States of America (USA),35–41,43,47,48,50,51 three in South Africa,42,46,49 three in Canada43,45,51–53 and two in the United Kingdom (one in England36 and one in Wales44).

Six of the 17 records were published after 2014 while the oldest records came from the second volume of the 1984 Institute of Medicine report on community-oriented primary care. This volume described case studies of USA primary care organizations, five of which met our inclusion criteria.37–41 One record presented findings from a community-oriented primary care project in South Africa in the 1940s.42 Among the remaining papers, a further seven were descriptive case studies.42,43,46–48,51,53 making this the most prevalent study design. There was one retrospective cohort study,42 two rapid participatory appraisals,45,49 a mixed-methods pilot study,46 and a cross-sectional study that also provided a narrative account of efforts to address social determinants.44 Three papers reported on the same Canadian primary care organization.37–39

Ten of the 17 studies described efforts led by primary health-care clinicians who had been actively involved in new initiatives to gather data on the social determinants of health in their local communities.43,45,49,50,51 Most papers aimed to describe novel assessment initiatives. For three papers these initiatives were nested within evaluations of broader interventions.37,41,46,49
Assessment activities reported

The included studies examined a wide range of domains of the social determinants of health, 20 of which were captured by two or more studies (Table 2; available at: http://www.who.int/bulletin/volumes/98/11/19-248278). Circumstances of daily life and indicators of socioeconomic position were the most commonly assessed. No studies assessed social cohesion. Assessed in 11 studies (9 organizations), the most common indicators of socioeconomic position were measures of income or financial situation. Additional population stratification factors, such as race and ethnicity, nationality, religion, disability, sexual orientation and language were only assessed in two recent studies. Only two studies (reporting on the same primary care organization) explicitly sought to assess both sex and gender identity. Two studies did not report which specific social determinants of health data they were assessing. No studies assessed any of the wider socio-political factors.

Approach to data collection

Ten studies described routine data collection activities on the social determinants of health, six described non-routine or one-off assessments, and one study was unclear. Almost all organizations that employed routine assessments collected individual-level data from patients or their proxies, often within clinic receptions or waiting areas (Table 3). One study additionally linked individual records to neighbourhood median household income level and another study supplemented patient-level data with routine household surveys conducted by community health workers. Greater heterogeneity in data domains and collection methods was observed among studies describing non-routine social determinants of health assessments. Aggregate-level administrative data on social determinants of health were collated for the primary care organizations' strategic plans. Pre-existing collaborative multisectoral partnerships were also believed to enable multifaceted responses to community health needs identified by social determinant assessments. Electronic data collection using tablet computers and mobile phones was believed to be feasible and acceptable within both well- and under-resourced clinical settings. Translating surveys into multiple languages was believed to improve response rates and overall data quality. Having social determinants of health data entry fields integrated
Table 1. Characteristics of studies included the systematic review of approaches to assessing and addressing social determinants of health in primary care

| Study | City or region, country | Study type | Primary care organization | Population served |
|-------|-------------------------|------------|---------------------------|-------------------|
| Institute of Medicine, 1984 | Checkerboard area of the Navajo Nation, New Mexico, USA | Case study | System of satellite primary health-care clinics | 14 000 patients from largely indigenous communities |
| Institute of Medicine, 1984 | Bailey, Colorado, USA | Case study | Fee-for-service rural family medicine centre with 2 physicians and 5 nursing staff | 7 280 patients. Low representation of adult patients over 65 years of age compared with the broader community |
| Institute of Medicine, 1984 | East Boston, Massachusetts, USA | Case study | 1 large, interprofessional, fee-for-service, group health-care practice | Approximately 32 000 residents of a socioeconomically deprived region of inner-city Boston |
| Institute of Medicine, 1984 | The Bronx, New York, USA | Case study | 1 publicly funded, interprofessional, community health centre | 20 000 patients residing in 9 urban catchment areas of an area of inner-city New York |
| Institute of Medicine, 1984 | Edgecombe County, North Carolina, USA | Case study | 1 multidisciplinary, private fee-for-service, primary health-care practice | Rural community of approximately 12 000 residents |
| Tollman, 1994 | Pholela District, KwaZulu-Natal, South Africa | Case study | 1 interprofessional, publicly funded, rural primary health-care centre | Approximately 10 000 patients in the 1940s |
| Williams & Jaén, 2000 | Cleveland, Ohio, and Buffalo, New York, USA | Case study | 11 predominantly small to medium-sized primary health-care group practices | 8 urban and largely marginalized communities, 1 suburban and 1 semi-rural community |
| Fone et al., 2002 | Caerphilly County Borough, Wales, United Kingdom | Cross-sectional study | Local authorities and local health groups | Approximately 170 120 residents of socioeconomically diverse communities within the Gwent health authority, south-east Wales |
| Horne and Costello, 2003 | Hyndburn, England, United Kingdom | Rapid participatory appraisal study | 5 publicly funded primary health-care teams | 1 district in north-west England |
| Bam et al., 2013 | Tshwane District, Gauteng South Africa | Case study | 9 primary care health posts | 2 000 to 3 000 households in the most socioeconomically deprived sub-districts of Tshwane District |
| Hardt et al., 2013 | Alachua County, Florida, USA | Case study | Academic health system with primary health-care practices | Urban community of approximately 124 354 residents with large student population |
| Gottlieb et al., 2015 | Baltimore, Maryland, USA | Case study | Urban teaching hospital paediatric clinic | Families attending Johns Hopkins Children’s Center Harriet Lane clinic |
| Jinabhai et al., 2015 | Eastern Cape, Free State, Mpumalanga, Limpopo, Gauteng, Northern Cape, North West, South Africa | Rapid participatory appraisal study | Interprofessional ward-based outreach teams constituting primary health and social care providers | Over 673 000 households across 7 provinces |
| Page-Reeves et al., 2016 | Albuquerque, New Mexico, USA | Mixed-methods pilot study | 2 academic family medicine clinics and 1 community health centre | Large, low-income patient populations |
| Pinto et al., 2016 | Toronto, Ontario, Canada | Case study | 5 interprofessional academic primary health-care clinics | Sociodemographically diverse inner-city patient population of approximately 35 000 patients |
| Lofters et al., 2017 | Toronto, Ontario, Canada | Retrospective cohort study | 6 interprofessional, publicly funded, academic primary health-care clinics | Sociodemographically diverse inner-city population of approximately 45 000 patients. Study sample focused on adults eligible for publicly funded colorectal, cervical or breast cancer screening programmes |
| Pinto & Bloch, 2017 | Toronto, Ontario, Canada | Case study | 6 interprofessional, publicly funded, academic primary health-care clinics | Sociodemographically diverse inner-city population of approximately 45 000 patients |
within electronic health records was believed to improve the documentation of unmet social needs and communication of such information across care teams.48

Missing data limited the completeness of the primary data collected for more sensitive sociodemographic information such as income. Data representativeness was potentially limited where only a sub-sample of key informants provided social determinants of health information on behalf of the wider community.43,45,46 Given that population-level data sets were often sourced from multiple organizations, the quality and compatibility of linked data were hindered by variations in data collection time periods, different geographical boundaries and varying coverage of the population.40,44 Linking population-level data to individual-level data was difficult in practices using hard-copy medical records.49 The time and human resource investments required for data collection, processing, analysis and reporting was raised as a key challenge for implementing social determinants of health data collection, even in well-resourced primary care settings.45,46,48,49 Finally, public trust in the people and

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**Table 3. Source of individual- and population-level data and types of actions by primary care organizations involved in assessing and addressing the social determinants of health**

| Study                      | Sources of individual-level data | Sources of population-level data | Types of action                                                                 |
|----------------------------|----------------------------------|----------------------------------|---------------------------------------------------------------------------------|
| Institute of Medicine, 1984 | Unclear                          | Unclear                          | Not reported                                                                    |
| Institute of Medicine, 1984 | Patient or proxy in a clinic     | Not collected                    | New services for specific subgroups, New non-health services, Introduction of new legislation or policies |
| Institute of Medicine, 1984 | Patient or proxy in clinic waiting room | Not collected                       | New services for specific subgroups, New non-health services                      |
| Institute of Medicine, 1984 | Household visits                 | Unclear                          | Not reported                                                                    |
| Tollman, 1994               | Home visits. Individuals in clinics | Unclear                        | Individual-focused interventions, New non-clinical services                      |
| Williams & Jaén, 2000       | Patient or proxy telephone interviews | Not collected                       | New services for specific subgroups                                            |
| Fone et al., 2002           | Not collected                    | Administrative data: held by another agency, not publicly available | New clinical services that benefit the entire community, New representation in policy and planning processes |
| Home and Costello, 2003     | Key informant interviews. Focus groups | Administrative data: unclear                                    | New services for specific subgroups, New clinical services that benefit the entire community, New non-health services, New representation in policy and planning processes |
| Bam et al., 2013            | Household visits                 | Not collected                    | Not reported                                                                    |
| Hardt et al., 2013          | Not collected                    | Publicly available data and non-publicly available held by other agencies | New clinical services that benefit the entire community, New integrated health and social services, Introduction of new legislation or policies |
| Gottlieb et al., 2015       | Patient or proxy in a clinic     | Not collected                    | Individual-focused interventions                                                |
| Jinabhai et al., 2015       | Individuals in clinics. Household visits | Not collected                       | Individual-focused interventions, New clinical services that benefit the entire community, New integrated health and social services, New non-health services, New representation in policy and planning processes |
| Page-Reeves et al., 2016    | Patient or proxy in a clinic     | Not collected                    | Individual-focused interventions, New clinical services that benefit the entire community, Introduction of new legislation or policies |
| Pinto et al., 2016          | Patient or proxy in a clinic waiting room | Not collected                       | Introduction of new legislation or policies                                      |
| Lofters et al., 2017        | Patient or proxy in a clinic waiting room | Non-publicly available data held by other agencies | Not reported                                                                    |
| Pinto & Bloch, 2017         | Patient or proxy in a clinic waiting room | Not collected                       | Not reported                                                                    |
organizations collecting social determinants of health data was highlighted as an important consideration for primary data collection.42,43

**Risk of bias assessment**

The overall risk of bias was serious for 15 studies and critical for two studies. Due to the reliance on descriptive study designs, most studies provided limited detail regarding who received the social determinants of health assessment intervention and how these interventions were implemented. Another important source of potential bias was in the attribution of actions (that were not pre-specified) to the social determinants of health assessment intervention without comparison to a control group or accounting for other potentially confounding factors. Domain-specific risk of bias assessments are presented in the data repository.30

**Discussion**

Our review provides primary healthcare practitioners and policy-makers with an overview of the approaches taken to assess and address social determinants of noncommunicable diseases by 15 primary care organizations. Although this policy objective is a leading priority for international health systems, we found very few contemporary examples in the peer-reviewed literature that met the inclusion criteria for this study. There was marked heterogeneity in the domains assessed by the different organizations, and no assessments of macro-level sociopolitical factors that influence distributions of health across populations. Organizations tended to collect individual-level data in clinical settings rather than population-level...
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There was a broad range of actions targeting individuals, communities and the whole of society. The use of descriptive case studies and an absence of long-term evaluations of health outcomes among the included studies limits the conclusions we can reach about the relative merits of each approach. Nevertheless, the heterogenous approaches described in this paper highlight diverse options for care providers and policy-makers to consider.

Gold-standard approaches to collection of data on the social determinants of health in health-care settings have yet to be identified. Nevertheless, the WHO Commission’s framework provides a useful starting point for primary care organizations in defining, which specific factors are most relevant to their local context. As observed in our review, the specific domains of the social determinants of health assessed and the methods for data collection will likely vary according to an organization’s purpose for assessment and the resources available to support data collection, analysis and response.

Approximately half of the studies in our review assessed the social determinants of health via individual-level surveys in clinical settings. These data can complement existing biomedical information from medical records. A 2018 scoping review found that a growing number of screening tools are being used around the world to help frontline clinicians collect data on social determinants. These data are mainly being used in a case-finding capacity to identify individuals with multiple domains of social risk. The combination of individual-level social data (such as on poverty, housing and food insecurity) and clinical health data (such as blood pressure, cholesterol levels, medications and pre-existing conditions) can help health workers to identify population groups with specific needs and inform the design of appropriate interventions. However, approaches that rely on data collected solely in clinic settings will exclude vulnerable members of the local community who are not registered or do not seek care from primary care providers. This approach may also fail to capture higher-order and population-wide factors such as welfare policy, transport networks and sanitation.

The other half of the reviewed studies either collected new population-level data or collated pre-existing population-level sociodemographic data sets. These data collection activities were often stand-alone endeavours as opposed to routine, systematized activities. Aggregated community-level data can conceal within-population inequalities, but otherwise tend to provide a more representative picture than extrapolating from patient registries. Whether data are at the individual or population level, it is paramount that primary care organizations carefully consider the representativeness of their data sources.

The actions of the primary care teams in South Africa and the United Kingdom model the primary healthcare philosophy of integrating public health and primary care functions to engage in intersectoral action. Nevertheless, we did not find any examples of primary health-care organizations that employed routine systems for collating population-level data on the social determinants of health and that worked collaboratively on an everyday basis. Intersectoral collaboration was highlighted as an enabler of population-level social determinants of health assessment. Yet the reviewed studies suggest that there are challenges to finding the human, financial and technological re-

Fig. 2. A taxonomy of approaches to translate local data on social determinants of health into action
sources required to build and maintain routine population-level assessment systems on the social determinants of health. These roles can be provided by organizations responsible for planning and resourcing local health and social services (such as health ministries), academic institutions, or those representing primary care professionals (such as professional associations and governing bodies). Contemporary examples include population health data parsed for primary care organizations by Public Health England, the American Board of Family Medicine and University of Missouri, and the Slovenian National Institute of Public Health. There are numerous other systems containing population-level data on a wide range of social determinants of health indicators that are not currently linked to specific primary care practice populations. Further research should explore how to support the use of these data in primary care to plan local population services that are responsive to community needs.

Assessing the domain of wider sociopolitical factors was another identified gap in data collection by primary care organizations. This omission may be justified given that the purpose of collecting data on the social determinants of health tended to focus on the local community. However, the gap may also stem from a lack of clarity on which measures within this domain are relevant, feasibly measured and action-able for primary care organizations. Understanding how to collect data on wider sociopolitical factors represents an important area for future research. Further gaps include information around funding mechanisms, workforce arrangements and the interface with public health agencies.

Almost all the primary care organizations used new knowledge on local social determinants of health to design and deliver novel interventions with the goal of reducing health inequalities and improving population health outcomes. These ranged from downstream individual-focused activities like producing educational materials, to upstream health-in-all-policies approaches, such as joining local authority planning and commissioning boards. Similar themes of action are reflected in the 2019 consensus report on the integration of health and social care in the USA. Our social determinants of health taxonomy of actions builds on previous research and the WHO Commission’s report to provide a way of thinking through the various levels where primary care organizations can act to make positive changes.

An important consideration for future research is how, when and where primary care organizations should engage with traditional public health activities. Our review has illustrated the heterogeneity in primary care activities on addressing the social determinants of health. However, despite decades of work to define the characteristics of primary care, there is no consensus in the health policy community around exactly which activities and functions primary care ought to perform. One approach is unlikely to be suitable for all settings, as different primary care systems have different skills, resources, and cultural expectations. There are already marked contrasts between even closely related systems. While Dutch family physicians recently rejected mooted new public health responsibilities almost all general practitioner surgeries in England have taken on responsibilities for addressing neighbourhood inequalities and improving population health.

Our review has several strengths. It was conducted in line with Cochrane and PRISMA guidelines and used a robust search strategy with independent dual review with good agreement at every stage. The review addresses an important evidence gap for global primary health care and provides detailed and pragmatic insights for clinicians and policy-makers. Limitations of this review primarily relate to the types of studies included. Most were case studies detailing implementation approaches rather than quantifying associations between social determinants of health assessment and subsequent actions and outcomes. In particular, the absence of health outcomes data reported in the included studies highlights the challenges primary care organizations face with finding the resources to evaluate downstream outcomes of interventions that may take several years to manifest. This aligns with public health research more broadly and social determinants of health-oriented primary care research specifically, where the field is hampered by a lack of randomized controlled trials and of methodological tools for evaluating complex interventions. To examine whether assessment of the social determinants of health leads to interventions mitigating unmet social needs and health disparities, future research should endeavour to use longer follow-up periods and more rigorous observational and experimental methods. Despite stating an intention to use social determinants of health data collection to inform action, six of the 17 studies did not report on any actions. We did not find any studies from low-income countries that met the inclusion criteria and our review may also have missed unpublished international examples, thus limiting the generalizability of our findings. Despite these limitations, case studies arguably provide useful evidence for how and why a particular approach was employed.

Conclusions

Tasked with the mandate of the Declaration of Astana and facing a rising burden of noncommunicable diseases, policymakers are reorienting their primary care systems to proactively address the social determinants of noncommunicable diseases. We have identified several promising primary care approaches for measuring and mobilizing action on social determinants of noncommunicable diseases. The evidence presented could assist care providers and policy-makers in considering which domains of social determinants of health to measure, which methods to use for collecting and collating this data, and how and at what level primary care organizations are positioned to intervene on local social determinants of health. Future research should examine undocumented innovators in this field and aspire to more rigorous observational and experimental study designs examining the impact of social determinants of health assessment on interventions to address local social determinants of health and health disparities.

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لمحة

معالجة المحددات الاجتماعية للأمراض غير المعدية في الرعاية الأولية: مراجعة منهجية

كانت السوّاح والقابليات الشخصية في العادات والمنازل أكثر استعداداً بشكل شائع لتقسيم المحددات الاجتماعية المحلية، عن البيانات على مستوى السكان. لم تظهر أي تغيرات في الجوانب التي قامت بتقسيم الدوافع الاجتماعية والسياسية للأمراض غير المعدية؛ فقد قامت جميع الباحثين بتحديد المحددات الاجتماعية والسياسية أو الظروف الاجتماعية. وعلى الرغم من ذلك، فإن الإجراءات التالية لا تزال تحذف من الاحتياجات.

توجد أدلة تجريبية وملاحظة جادة للتأكد مما إذا كان قياس المحددات الاجتماعية للأمراض غير المعدية في مجتمعات السكان المحلي، والعمل بناءً على ذلك، بأن هناك حاجة إلى السياسات في التفكير بشأن أساليب مناسبة لتقييم والتعامل مع المحددات على مستوى النظام.

الاستنتاج إن النتائج التي توصلنا إليها قد تساعد واضعي للمؤسسات الرعاية الأولية في لجان السياسات والتخطيط على المستوى الفردي إلى التدابير على مستوى السكان، مع إدخال تمثيل للمحددات الاجتماعية للأمراض غير المعدية. لتحديد الجودة في تقييم المحددات الاجتماعية للأمراض غير المعدية، تقييم خطر التحيز في دراسات Cochrane، تم استخدام أدلة تقييم خطر التحيز في دراسات Cochrane، تم استخدام أدلة تقييم خطر التحيز في دراسات Cochrane.

نعمل على تحديد 666 دراسة، مع تضمين 17 منها في المراجعة. استخدمت جميع الدراسات تصميم دراسة وصفية.

ملخص

انية الجوانب غير المستوفاة، وتقلل الفوارق الصحية.

مراجعات

• تقييم الدوافع الاجتماعية والسياسية للأمراض غير المعدية في مجتمعات السكان المحلي.

• هناك حاجة إلى السياسات في التفكير بشأن أساليب مناسبة لتقييم والتعامل مع المحددات على مستوى النظام.

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Resumen

Abordar los determinantes sociales de las enfermedades no transmisibles en la atención primaria: una revisión sistemática

Objetivo
Estudiar cómo las organizaciones de atención primaria evalúan y aplican posteriormente los determinantes sociales de las enfermedades no transmisibles en sus poblaciones locales.

Métodos
Para esta revisión sistemática se realizaron búsquedas en las bases de datos en línea de PubMed®, MEDLINE®, Embase® y el Health Management Information Consortium desde su inicio hasta el 28 de junio de 2019, junto con una búsqueda manual de referencias. Se incluyeron estudios de todos los diseños que analizaron a una organización de atención primaria en la que se evaluaban los determinantes sociales de las enfermedades no transmisibles. Para la evaluación de la calidad se utilizó la herramienta de Cochrane para evaluar el riesgo de sesgo en los estudios no aleatorizados de las intervenciones. Se utilizó la herramienta de Cochrane para evaluar el riesgo de sesgo en los estudios no aleatorizados de las intervenciones. Se utilizó la herramienta de Cochrane para evaluar el riesgo de sesgo en los estudios no aleatorizados de las intervenciones.

Resultados
Se identificaron 666 estudios, de los cuales 17 se incluyeron en la revisión. Todos los estudios utilizaron diseños de estudio descriptivos. Se utilizaron las encuestas y las entrevistas en los consultorios y en los hogares con mayor frecuencia que los datos a nivel de la población para evaluar los determinantes sociales locales. No se encontraron ejemplos de organizaciones que evaluaran los factores sociopolíticos determinantes de las enfermedades no transmisibles, ya que todas se centraban en los factores sociodemográficos o en las circunstancias de la vida cotidiana. No obstante, las medidas que se adoptaron para abordar los determinantes sociales fueron desde intervenciones a nivel individual hasta medidas a nivel de la población y la integración de la representación de las organizaciones de atención primaria en los comités de planificación y de políticas a nivel del sistema.

Conclusión
Los resultados obtenidos pueden ayudar a los responsables de formular las políticas a considerar los enfoques adecuados para evaluar y abordar los determinantes sociales de la salud en su contexto nacional. Se necesitan evidencias observacionales y experimentales más rigurosas para determinar si la medición de los determinantes sociales conduce a las intervenciones que mitigan las necesidades sociales que no se atienden y que reducen las desigualdades en la salud.
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### Table 2. Sociodemographic data collected by each reviewed study in the systematic review of approaches to assessing and addressing social determinants of health in primary care

| Domains of WHO framework assessed | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Tollman, 1994 | Williams & Jaén, 2000 | Fone et al., 2002 | Horne & Costello, 2003 | Bam et al., 2013 | Hardt et al., 2013 | Gottlieb et al., 2015 | Jinabhai et al., 2015 | Page-Reeves et al., 2016 | Pinto et al., 2016 | Lofers et al., 2017 | Pinto & Bloch, 2017 |
|---------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|--------------|---------------------|------------------|---------------------|------------------|------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Circumstances of daily life     |                           |                           |                           |                           |              |                     |                  |                     |                  |                  |                     |                      |                      |                      |                      |                      |
| Material circumstances         |                           |                           |                           |                           |              |                     |                  |                     |                  |                  |                     |                      |                      |                      |                      |                      |
| Food security and diet          | No                        | No                        | No                        | No                        | No          | Yes                 | Yes              | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Housing                         | Yes                       | Yes                       | No                        | No                        | No          | Yes                 | Yes              | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Transport                       | No                        | No                        | Yes                       | No                        | No          | No                  | Yes              | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Health and social care access   | Yes                       | Yes                       | No                        | No                        | No          | Yes                 | Yes              | Yes                  | No                | Yes               | No                  | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Safety and crime                | No                        | No                        | Yes                       | No                        | No          | Yes                 | No               | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Water and sanitation            | No                        | No                        | No                        | No                        | No          | Yes                 | No               | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Childcare access                | No                        | No                        | No                        | No                        | No          | Yes                 | Yes              | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Health insurance                | No                        | No                        | Yes                       | No                        | No          | No                  | No               | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Social cohesion                 | No                        | No                        | No                        | No                        | No          | Yes                 | Yes              | No                   | No                | Yes               | No                  | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Psychosocial factors            |                           |                           |                           |                           | Yes         | No                  | Yes              | No                   | Yes               | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Social relationships and support|                           |                           |                           |                           | Yes         | No                  | Yes              | No                   | Yes               | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Behaviours                      |                           |                           |                           |                           | Yes         | No                  | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Substance use                   | Yes                       | No                        | No                        | No                        | Yes         | No                  | No               | No                   | No                | No                | Yes                 | No                   | No                   | No                   | No                   | No                   |
| Biological factors              |                           |                           |                           |                           | Yes         | Yes                 | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Age                             | Yes                       | Yes                       | No                        | No                        | No          | No                  | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Sex                             | Yes                       | Yes                       | No                        | No                        | No          | Yes                 | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Population stratifiers and indicators of socioeconomic position |                           |                           |                           |                           | No          | No                  | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Education                       | No                        | No                        | No                        | No                        | Yes         | No                  | Yes              | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Occupation and employment       | No                        | No                        | Yes                       | No                        | No          | Yes                 | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Income and finances             | No                        | No                        | Yes                       | Yes                       | No          | Yes                 | No               | Yes                  | No                | Yes               | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Gender                          | No                        | No                        | No                         | No                        | No          | No                  | No               | No                   | No                | No                | Yes                 | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |

(continues...)
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| Domains of WHO framework assessed | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Institute of Medicine, 1984 | Tollman, 1994 | Williams & Jaén, 2000 | Fone et al., 2002 | Horne & Costello, 2003 | Bam et al., 2013 | Hardt et al., 2013 | Gottlieb et al., 2015 | Jinabhai et al., 2015 | Page-Reeves et al., 2016 | Pinto et al., 2016 | Lofters et al., 2017 | Pinto & Bloch, 2017 |
|----------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|----------------------|-------------------|--------------------|----------------|----------------|----------------------|---------------------|-------------------|-------------------|-------------------|-------------------|
| Race and ethnicity               | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Other: Not specified in WHO framework | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Nationality                      | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Religion                         | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Disability                       | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Sexual orientation              | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Language                         | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Wider sociopolitical factors    |                           |                           |                           |                           |             |                      |                   |                    |                  |                |                      |                     |                   |                   |                   |
| Governance                      | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Policy                           | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |
| Cultural and social norms and values | No                        | No                        | No                        | No                        | No          | No                   | No                | No                 | No               | No             | No                   | Yes                 | Yes               | Yes               | Yes               |

WHO: World Health Organization.

Notes: We categorized data according to the WHO’s conceptual framework for action on the social determinants of health. Two studies did not report on the specific social determinants of health data. Two studies reported on the same intervention. Some studies assessed other social determinants of health data: free-text capture of sociodemographic information, Jarman index of deprivation, Townsend index of deprivation, self-reported health, and perceived community health needs.