Shared Language for Shared Work in Population Health

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ABSTRACT

People working on behalf of population health, community health, or public health often experience confusion or ambiguity in the meaning of these and other common terms—the similarities and differences and how they bear on the tasks and division of labor for care delivery and public health. Shared language must be clear enough to help, not hinder people working together as they ultimately come to mutual understanding of roles, responsibilities, and actions in their joint work. Based on an iterative lexicon development process, the authors developed and propose a definitional framework as an aid to navigating among related population and community health terms. These terms are defined, similarities and differences clarified, and then organized into 3 categories that reflect goals, realities, and ways to get the job done. *Goals* include (a) *health* as well-being for persons, (b) *population health* as that goal expressed in measurable terms for groups, and (c) *community health* as population health for particular communities of interest, geography, or other defining characteristic—groups with shared identity and particular systemic influences on health. *Realities* are social determinants as influences, health disparities as effects, and health equity as both a goal and a design principle. *Ways to get the job done* include *health care delivery systems* for enrollees and *public health* in population-based civic activities—with a *broad zone of collaboration* where streams of effort converge in partnership with served communities. This map of terms can enable people to move forward together in a broad zone of collaboration for health with less confusion, ambiguity, and conflict.

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THE IMPERATIVE AND THE PROBLEM

The terms population health, community health, and public health are often used interchangeably, yet imprecisely, leading to conceptual and practical misunderstandings. Each term relates in its own way to primary care and larger care delivery systems. Shared definitions enable people to create an agenda for shared work, making it possible for people from different disciplines, roles, types of organizations, and age groups to work together[1,2] on behalf of the larger goal of population health improvement.[3,4] Often people say they are doing "population health," but mean very different things. Knowing they are in it together, people working in the crucibles of population health improvement are passionate, but often don't share sufficient common language to proceed with their work without asking, "What do you mean by that?" or "Is this the same thing as that?" (Table 1). This goes beyond mere ambiguity to strong feelings about the importance of language and meanings in your own discipline or "guild"[5]; words or professional practices that are precious, protected, and not to be misunderstood or appropriated.

This paper doesn't try to eliminate strongly held meanings or local usage, but offers an example of language based in common understandings and hopefully is good enough to help people move forward together with less confusion, ambiguity, and conflict.

The COVID-19 pandemic amplified the need for care delivery systems, public health, and other sectors to work together at an accelerated pace with even less energy available for misunderstanding and ambiguity.[6-8] Shared language for shared work is important not only for division of labor,

but for teaching clinicians, public health students, and others to work effectively, one with the other, in different settings.[9] Shared language is also important for policy and advocacy, making the subjects more consistent and intelligible to policy makers or funders, who otherwise confuse words that sound similar but are used differently by people in different professional settings.

Table 1. Common Meanings for "Population" From Different Standpoints

Standpoint	What is Meant by "Population"
Insurance company or health plan	People covered by an insurance product, eg, "members," "enrollees," "beneficiaries," "covered lives." May include private or public insurance, eg, Medicaid for safety-net systems.
Medical groups or provider systems	People assigned to receive care through a provider group or delivery system, eg, "assigned patients" or "panels"
Individual practices	People assigned or showing up for care, eg, "my patients," "panels" or neighborhoods—whether they are seeking care or not
Communities or community organizations	Groups of people with a shared characteristic, interest, risk factor, geography, or other commonality, eg, diabetes; children with special needs; veterans or occupational groups; cultural, ethnic, or racial groups; geographic neighborhoods or other communities of interest

Note: The intersection of these terms: health insurance is organized around "enrollees" or "members" while care delivery systems are organized around "assigned patients" or "panels." Several care systems and insurance companies may in effect "divide up" the population of multiple actual communities or larger geographic areas into enrollees (for insurance) and panels (for care), which count for the insurance company or delivery system as "our population" even though not a complete population or community. Communities of geography, interest, or shared characteristics may be served by multiple health plans and provider groups, or none at all—hence are also divided up for service by care delivery. This distribution of the people of actual communities across multiple health plans and provider groups amplifies the need for public health and other public and private action in concert with care delivery and insurance systems.

Coming Together on Shared Language for Shared Work

In this article, we attempt to define and distinguish commonly used terms in a manner that helps people share enough common language to get work done together. We propose a framework of definitions (Figure 1) as an aid to navigation for related population and community health terms. If you wish to view, download, or print the figure in its original large 1-page form, please go to https://www.AnnFamMed.org/lookup/suppl/doi:10.1370/afm.2708/-/DC1. . This lexicon places terms in a relational context—from goal-oriented language at the top to "how-to" language at the bottom. The illustration was created by the authors, a sample of professionals working in crucibles[10] of population health who agree that shared language propels practical work forward in the push-pull of differing roles and responsibilities. The authors believe that the goal of population health is achievable—with better collaboration between primary care and public health, a supportive environment at the policy and health system level, and attention to the social and environmental realities that affect the health of communities and individuals. Figure 1 suggests what such a depiction can look like and how shared meanings can be articulated.

These definitions will surely evolve as new disciplines, methods, sources, and stakeholders join the fray—people beyond the present authors—including patients, community members, public health practitioners, and other groups focused on health inequities. This lexicon is intended to be useful now—as a reflection of current reality—not as an ideal future reality, nor as a set of definitions for all time, generated by all people. At the same time, it incorporates definitions and meanings from published accepted language.

How We Arrived at the Lexical Diagram

A group of US colleagues working on population health initiatives were asked to provide feedback to the University of Minnesota (UMN) authors on an early version of Figure 1. Subsequently, the *Annals of Family Medicine* and the Robert Graham Center jointly sponsored synchronous and asynchronous virtual communications in which C. J. Peek devised and facilitated an iterative consensus process with a panel of 10 professionals with expertise in population health. A modified Delphi process was used to establish "good enough" shared language, placed in a relational context and describing current reality, to create a revised figure.

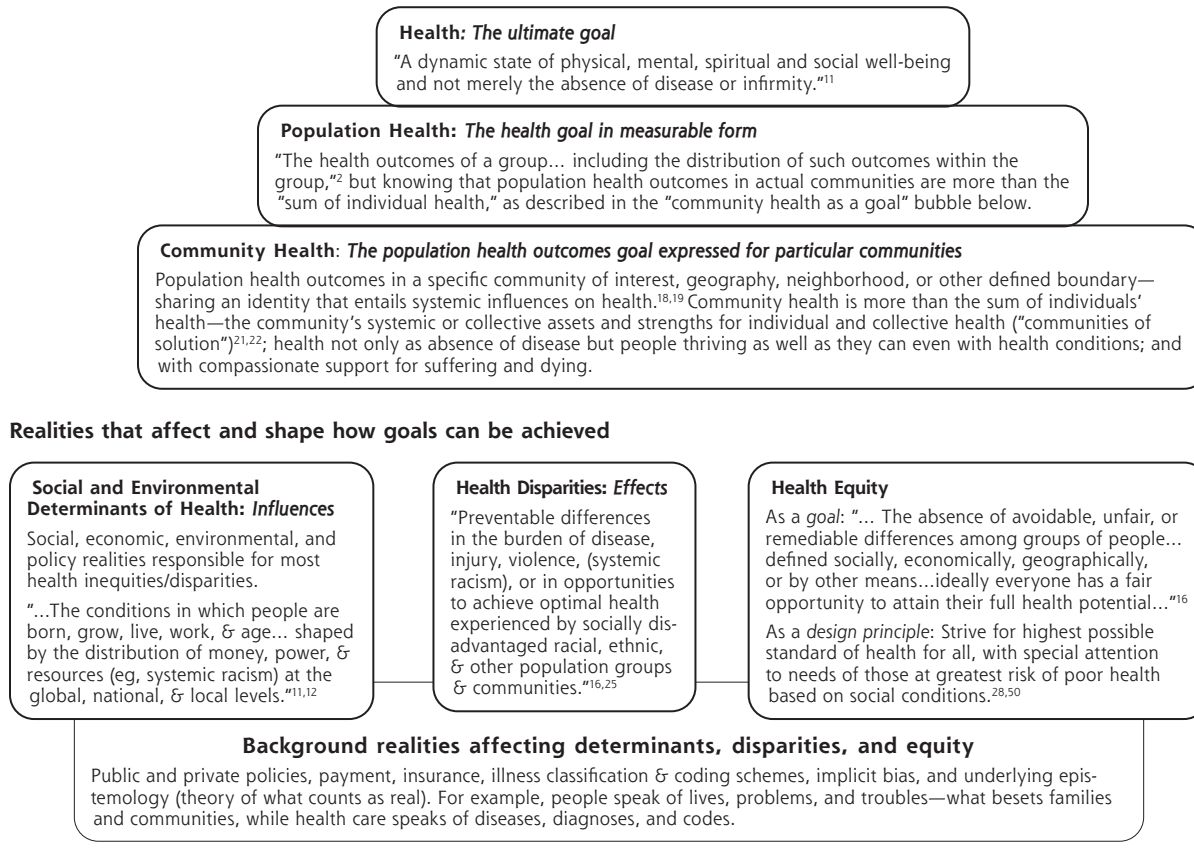
A TOUR OF THE LEXICON DIAGRAM

Top Rows—Goals and Expressing Them Measurably

Health and Population Health

In 1948 the World Health Organization (WHO) defined health as not merely the absence of disease or infirmity, but as a dynamic state of physical, mental, spiritual, and social well-being.[11] This definition focused primarily on the welfare of individuals. Six decades later, WHO specified the need to achieve better health for all by reducing exclusion and social disparities in health.[12] Kindig defined this goal as "population health," with emphasis on health outcomes of a group of individuals, in addition to the distribution of outcomes within the group.[13,14] The Centers for Disease Control and Prevention (CDC) goes further to acknowledge that conditions in which people are born, grow, live, work, and age, as well as the distribution of money, power, and resources, all influence population health.[15,16]

Figure 1. Population and community health terms: navigating the territory. *(continues on next page)*



continues

IT = information technology; COPC = community-oriented primary care; PC = primary care.

Population Health as a Goal With Measures

Population health as a goal with measures may be encountered in different ways for different purposes, eg, good health status in a population or delineated subpopulation, improvement of health in that population, or reduced variability (greater equity) of health status across members or subgroups. "Everyone has a fair opportunity to attain their full health potential."[17] Population health measures might be encountered as a snapshot in time or as a change trend, for a whole geographically or otherwise defined population, or for specific subpopulations for purposes of understanding health disparities.

Population Health Management

Population health as a goal with measures is distinct from the concept of *population health management* (shown in the bottom row), which is used to refer to tools and methods used by delivery systems or public health, to achieve such population health goals and are reflected in specific population health measures.

Community Health as a Goal

Community health as a goal, on the other hand, defines population health goals for particular communities with a shared identity, as defined by common interests, problems, fate, or those who live in a common environment, and with whom several primary care clinicians interact over time.[18] Specific communities of interest share an identity and benefit from their systemic influences, resulting in overall community health greater than the sum of the health of individuals within the group.[19,20] A particular community might have better (or poorer) health than the larger population of which it is a part, due to strong salutogenic (or pathogenic) features of that community. Influences on health of a community as a whole could include presence or absence of sanitation systems, refrigeration, electricity or Internet, accessible transportation, walkable cities, neighborhood safety with well-used public areas, access to care and nutritious groceries, school attendance, or literacy. Communities are seen

Figure 1. Population and community health terms: navigating the territory. *(continued)*

The general ways to get the job done

Health Care Delivery Systems: ***Private or public provision of care to individuals & families***

An array of systems designed to manage the health care of individual patients and populations who are signed up with private or public providers or health care systems.

Includes primary and specialty care, mental health, substance use/addiction care, hospital, other levels and venues; usually privately or publicly owned, and commonly paid through private or public health insurance.

Primary Care: *first contact, coordinated, continuous, comprehensive*

"…Integrated, accessible health care services [including behavioral health] by clinicians accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in context of family and community." [29,30]

Public Health: ***A population-based civic-level activity***

An array of service provided to city, county, and state residents that includes data collection, surveillance, advocacy, policy development, enforcement of regulations, and services to individuals.

Supported by administration and taxes at different levels of government; often with collaboration from a wide range of nonprofit or for-profit health care delivery and nongovernment community organizations; with many different kinds of practitioners/workers "… promotes and protects the health of people and the communities where they live, learn, work, and play."[16]

With a broad zone of potential collaboration to achieve community health as a goal

A way of operating: health care delivery, public health and others in active partnership with served communities on behalf of community health.

"A perspective on public health that takes community to be an essential determinant of health and the indispensable ingredient for effective public health practice"[38]

"In active partnership" means relationships, interconnections, alliances, collaborations, and understood division of labor across care delivery, public health, and the many community and philanthropic organizations working with and for healthy communities; where streams of effort converge in effective action.

Examples below:

Community-Oriented Primary Care (COPC)

"Helps clinicians respond to population-level concerns by marrying public health with primary care…focuses not just on individuals but also on families and communities in the context of social determinants"[43]

"COPC mirrors steps for clinically evaluating (individual) patients… one conducts similar steps on a population within a defined community"[41]; "A continuous process by which PC is provided to a defined community on the basis of assessed health needs through the planned integration of public health practice with the delivery of primary care."[42]

Population Health Management and improvement: **what care delivery and public health systems do "on the ground" to achieve population health goals**

Clinical and IT processes and tools; "Design, delivery, coordination, and payment of high-quality health care services and public health monitoring and intervention to achieve the 'Triple Aim' for a population (care delivery defined or public-health defined population) using the best resources we have available."[48]

"Changes in the way primary care is delivered, reimbursed, and measured… to support the health-promoting and healing work that happens continuously, not just during a clinic visit or inside the clinic walls."[49]

And other examples or paradigms for action in the broad zone of collaboration

IT = information technology; COPC = community-oriented primary care; PC = primary care.

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as having collective assets and strengths enabling them to serve as "communities of solution" to achieve population health.[21-23]

Middle Rows: Realities That Affect and Shape How Goals Can Be Achieved

Social Determinants of Health, Health Disparities, and Health Equity

Numerous *social determinants of health* (influences) can either positively or adversely affect community and population health outcomes.[12,15,24] These result in *health disparities* (consequences).[25,26] *Health equity* is both a goal and a design principle: The goal is the absence of avoidable or remediable health differences among groups of people defined socially, economically, or by other means—the opportunity to attain full health potential.[27] As a design principle, health equity means health-linked systems are redesigned to address and eliminate unjust, potentially reversible health disparities among socially disadvantaged populations, while

accepting the effects of historical injustice.[28] Examples of background realities affecting determinants, disparities, and equity are shown beneath all 3 in the figure.

Bottom Rows: Ways to Get the Job Done

Health Care Delivery System and Primary Care

To date, the goal of traditional US health care delivery systems has been to provide cost-effective, quality care for enrollees in private or public health plans. Government, military, and commercial insurance programs fund primary, specialty, hospital, and other levels of care. Primary care forms the foundation of a strong health care system.[29,30] Many primary care clinicians have transformed their practices into "patient-centered medical homes," or similarly named entities, to provide coordinated, comprehensive, team-based care.[31,32] These new care models were developed specifically to achieve the Institute of Health Improvement's (IHI) Triple Aim to improve the health of populations, reduce per capita cost of health care, and improve patient experience.[33] As the primary care specialty committed to first contact, comprehensive, continuous, and coordinated care for patients of all ages,[22] family medicine has a broad scope of practice, a focus on prevention, and a community orientation that invites effective collaboration and partnership with public health colleagues and community organizations who are committed to community health.[34,35]

Public health

Public health is a population-based civic-level activity to prevent disease, prolong life, and promote the health of people in the jurisdictions where they live, learn, work, and play.[36,37] Functions typically include collecting region-specific health data, conducting disease surveillance, advocating and enforcing health-related policies and regulations, and providing some medical services in response to community need. Public health departments are primarily government-funded, civic agencies comprised of many different kinds of practitioners, using tax dollars to serve those living in defined geographic areas, even as they often and widely collaborate with nonprofit, or for-profit community entities. Differences in funding sources and accountabilities associated with the private nature of care delivery and the public nature of public health often complicate collaboration.

A BROAD ZONE OF COLLABORATION

The authors believe the goals of population health can be accomplished by robust cooperation and practical division of labor between care delivery and public health to achieve community health as a goal.[38] This broad zone of collaboration has limitless possibilities for health care delivery, public health, and other private or public entities to build active partnerships with served communities. People working in this zone cultivate connections, alliances, and collaboration with a mutual understanding of the division of labor across care delivery and public health, along with philanthropic organizations working for healthy communities. Streams of effort converge in effective action. Each stream has its own main job, even when there is overlap. For example, the care delivery job is stereotypically oriented to treatment of conditions for individuals, whereas the public health job is primarily oriented to protecting or improving health for neighborhoods, communities, or populations.[39]

Community-Oriented Primary Care

Community-oriented primary care (COPC) has a long history of helping clinicians respond to population-level health concerns through collaboration with public health and communities.[40,41] Essential to COPC is community engagement and co-leadership, whereby community stakeholders identify health issues and culturally appropriate interventions to address relevant concerns, focusing on families and communities, not only individuals.[42,43] The 2012 Patient Protection and Affordable Care Act provided added impetus for such collaboration.[44] Not-for-profit health systems, now required to complete community health needs assessments, often look to local departments of public health for assistance. Recent reports of successful primary care-public health collaborations designed to improve health in particular populations are encouraging.[45] At their inception, federally qualified health centers and their neighborhood health center predecessors were rooted in this philosophy, recognizing community itself as an essential determinant of health.[46,47]

Population Health Management and Improvement

Population health management and improvement, a modern and system-oriented term, refers to clinical and information technology (IT) processes, tools, and techniques available within the broad zone of collaboration of care delivery and public health that can help both achieve population health goals. This concept became well known in context of care delivery systems' Triple Aim but applies equally well to public health tools and techniques.[48,49]

There are surely other examples, programs, traditions, or paradigms that could be added to these 2 examples of active partnership of care delivery with public health.

CONCLUSION

The goal of population health is achievable with better collaboration between primary care, public health, and others at the local community health level, attention to the social and environmental realities that affect the health of communities and individuals,[50] and a responsive environment at the policy and care delivery system level. To prevent people talking past each other, shared language with common meaning is necessary for effective collaboration. But collaboration requires broadly shared language and meaning. Previous lexicon work in emerging fields enhanced shared understanding[51] needed for action and policy development.[2,52]

The figure is a pragmatic start to common language for moving shared work forward in an environment sufficiently shaken by pandemic and racial injustice so that positive change, previously unfathomable, may now be possible. We hope the figure helps those engaged in population and community health work navigate current reality with less confusion or misunderstanding, while encouraging conversations about envisioning and building stronger relationships between care delivery systems and public health on behalf of health equity for all people and communities. Shared language for shared work is only a first step in an effort to realize a more ideal future.

We encourage readers to share this navigational aid with clinicians, researchers, learners, funders, and community members, particularly when starting new clinical initiatives, research projects, or partnerships. We welcome feedback as to how this figure can be improved and examples of how this lexicon has been used to facilitate shared work.

To read or post commentaries in response to this article, go to https://www.AnnFamMed.org/content/19/5/450/tab-e-letters.

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References

1. Stergiopoulos E, Ellaway RH, Nahiddi N, Martimianakis MA. A lexicon of con-cepts of humanistic medicine: exploring different meanings of caring and compassion at one organization. *Acad Med.* 2019;94(7):1019-1026.
2. Peek CJ and the National Integration Academy Council. Lexicon for behavioral health and primary care integration: concepts and definitions developed by expert consensus. Agency for Healthcare Research and Quality. Published Apr 2013. Accessed Dec 31, 2020. https://integrationacademy.ahrq.gov/sites/default/files/2020-06/Lexicon.pdf
3. White KL, Williams TF, Greenberg BG. The ecology of medical care. *N Engl J Med.* 1961;265:885-892.
4. Hollander-Rodriguez J, DeVoe JE. Family medicine's task in population health: defining it and owning it. *Fam Med.* 2018;50(9):659-661.
5. Guild. Miriam Webster dictionary. Accessed Dec 31, 2020. https://www.merriam-webster.com/dictionary/guild
6. Romanelli RJ, Azar KMJ, Sudat S, Hung D, Frosch DL, Pressman AR. Learning health system in crisis: lessons from the COVID-19 pandemic. *Mayo Clin Proc Innov Qual Outcomes.* 2021;5(1):171-176. 10.1016/j.mayocpiqo.2020.10.004
7. Mitchell SH, Bulger EM, Duber HC, et al.; Western WA COVID-19 Expert Panel. COVID-19 Expert Panel. Western Washington state COVID-19 experience: keys to flattening the curve and effective health system response. *J Am Coll Surg.* 2020;231(3):316-324.e1.
8. Westfall JM, Coffman M, Hughes L, Jabbarpour L. Incorporating mental health and substance abuse screening into COVID-19 contact tracing. *Health Affairs blog.* July 9, 2020. Accessed Aug 20, 2021. https://www.healthaffairs.org/do/10.1377/hblog20200707.225691/full/
9. Robert Graham Center. Community oriented primary care (COPC) curriculum. Published 2016. Accessed Dec 31, 2020: https://www.graham-center.org/rgc/maps-data-tools/tools/copc.html
10. Crucible. Vocabulary.com. Accessed Dec 31, 2020. https://www.vocabulary.com/dictionary/crucible
11. Satorius N. The meanings of health and its promotion. *Croat Med J.* 2006;47(4):662-664. Accessed Aug 20, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2080455/
12. World Health Organization Commission on Social Determinants of Health. (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Accessed Jul 20, 2021. https://nccdh.ca/resources/entry/closing-the-gap-in-a-generation-health-equity-through-action-on-the-social
13. Kindig D, Stoddart G. What is population health? *Am J Public Health.* 2003;93(3):380-383.
14. Kindig DA. Understanding population health terminology. *Milbank Q.* 2007;85(1):139-161. 10.1111/j.1468-0009.2007.00479.x
15. Centers for Disease Control and Prevention (CDC). Achieving health equity by addressing the social determinants of health. Accessed Jul 20, 2021. https://www.cdc.gov/chronicdisease/programs-impact/sdoh.htm
16. 16. US Dept. of Health and Human Services. Healthy people 2020: understanding and improving health. HealthyPeople.gov. Accessed Jul 20, 2021. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
17. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. Accessed Aug 10, 2021. https://www.cdc.gov/chronicdisease/healthequity/index.htm
18. Sweeney SA, Bazemore A, Phillips RL Jr, Etz RS, Stange KC. A reemerging political space for linking person and community through primary health care. *Am J Public Health.* 2012;102(Suppl 3):S336-S341.
19. Sturmberg JP, Picard M, Aron DC, et al. Health and disease-emegent states resulting from adaptive social and biologic network interactions. *Front Med (Lausanne).* 2019;6(March):59. 10.3389/fmed.2019.00059

20. Desmond C, Seeley J, Groenewald C, Ngwenya N, Rich K, Barnett T. Interpreting social determinants: emergent properties and adolescent risk behaviour. *PLoS One.* 2019;14(12):e0226241.

21. Griswold KS, Lesko SE, Westfall JM; Folsom Group. Communities of solution: partnerships for population health. *J Am Board Fam Med.* 2013;26(3):232-238.

22. Lesko S, Griswold K, David SP, et al; The American Board of Family Medicine Young Leaders Advisory Group. Communities of solution: the Folsom Report revisited. *Ann Fam Med.* 2012;10: 250-260.

23. Westfall JM. Cold-spotting: linking primary care and public health to create communities of solution. *J Am Board Fam Med.* 2013;26(3): 239-240.

24. Robert Wood Johnson Foundation. Carger E, Weston D. A new way to talk about the social determinants of health. Robert Wood Johnson Foundation. Published Jan 1, 2010. Accessed Aug 20, 2021. https://www.rwjf.org/en/library/research/2010/01/a-new-way-to-talk-about-the-social-determinants-of-health.html

25. Health disparities. Centers for Disease Control and Prevention. Accessed Aug 20, 2021. https://www.cdc.gov/aging/disparities/index.htm

26. US Department of Health and Human Services. Healthy people 2020: understanding and improving health. Accessed Aug 21, 2021. https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities

27. World Health Organization. Social Determinants / health equity. Accessed Aug 10, 2021. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_3

28. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep.* 2014;129(Suppl 2):19-31.

29. Institute of Medicine. *Primary Care: American's Health in a New Era.* National Academy Press;1996.

30. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q.* 2005;83(3):457-502. 10.1111/j.1468-0009.2005.00409.x

31. American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP), American Osteopathic Association (AOA). Joint principles of the patient-centered medical home. Published Mar 2007. Accessed Aug 21, 2021. https://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf

32. Stange KC, Nutting PA, Miller WL, et al. Defining and measuring the patient-centered medical home. *J Gen Intern Med.* 2010;25(6): 601-612.

33. Institute for Healthcare Improvement. The IHI triple aim. Accessed Jul 20, 2021. https://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx

34. DeVoe JE, Bazemore AW, Cottrell EK, et al. Perspectives in primary care: a concep-tual framework and path for integrating social determinants of health into primary care practice. *Ann Fam Med.* 2016;14(2):104-108.

35. Hearld L, Alexander JA, Wolf LJ, Shi Y. Funding profiles of multisector health care alliances and their positioning for sustainability. *J Health Organ Manag.* 2018;32(4):587-602. 10.1108/JHOM-01-2018-0003

36. Winslow CEA. The untilled fields of public health. *Science.* 1920;5; 51(1306):23-33.

37. American Public Health Association. What is public health? Accessed Aug 21, 2021:. https://www.apha.org/what-is-public%20health

38. Institute of Medicine. *Primary Care and Public Health: Exploring Integration to Improve Population Health.* National Academies Press; 2012.

39. Valdiserri RO. To correct population health disparities, reinvigorate public health systems: the continuing lessons of COVID-19. *Health Affairs blog.* Published Dec 17, 2020. Accessed Jul 20, 2021: https://www.healthaffairs.org/do/10.1377/hblog20201214.443611/full/

40. Iliffe S, Lenihan P. Integrating primary care and public health: learning from the community-oriented primary care model. *Int J Health Serv.* 2003;33(1):85-98.

41. Institute of Medicine, Division of Health Care Services. *Community-Oriented Primary Care: A Practical Assessment*. Vol 1. National Academies Press;1984.

42. Mullan F, Epstein L. Community-oriented primary care: new relevance in a changing world. *Am J Public Health.* 2002;92(11):1748-1755.

43. Liaw W, Rankin J, Bazemore A, Ventres W. Teaching population health: communi-ty-oriented primary care revisited. *Acad Med.* 2017;92(3):419.

44. Peterson TA, Bernstein SJ, Spahlinger DA. Population health: a new paradigm for medicine. *Am J Med Sci.* 2016;351(1):26-32.

45. Michener JL, Castrucci BC, Bradley DW, et al. *The Practical Playbook II: Building Multisector Partnerships that Work*. Oxford Univ Press; 2019.

46. Hurley R, Felland L, Lauer J. Center for Health System Change policy brief: community health centers tackle rising demands and expectations. Published Dec 2007. Accessed Aug 21, 2021. https://pubmed.ncbi.nlm.nih.gov/18092393/

47. Taylor J. The fundamentals of community health centers. National Health Policy Forum. Published Aug 31, 2004. Accessed Aug 21, 2021. http://lib.ncfh.org/pdfs/2k9/8142.pdf48.

48. Lewis N. Populations, population health, and the evolution of population man-agement: making sense of the terminology in US health caretoday. Institute for Healthcare Improvement. Published Mar 19. 2014. Accessed Aug 21, 2021. https://www.ihi.org/communities/blogs/population-health-population-management-terminology-in-us-health-care

49. DeVoe JE. Primary care is an essential ingredient to a successful population health improvement strategy. *J Am Board Fam Med.* 2020;33(3):468-472

50. Westfall JM, Petterson SP, Rhee K, et al. New "PPE" for a thriving community: pub-lic health, primary care, health equity. *Health Affairs blog.* Published Sep 25, 2020. Accessed Jul 21, 2021. https://www.healthaffairs.org/do/10.1377/hblog20200922.631966/full/

51. Kessler RS, Purcell EP, Glasgow RE, Klesges LM, Benkeser RM, Peek CJ. What does it mean to "employ" the RE-AIM model? *Eval Health Prof.* 2013;36(1):44-66. 10.1177/0163278712446066

52. Miller BF, Ross KM, Davis MM, Melek SP, Kathol R, Gordon P. Payment reform in the patient-centered medical home: enabling and sustaining integrated behavioral health care. *Am Psychol.* 2017; 72(1):55-68. 10.1037/a0040448