

Background

Primary care access and quality impact all 329 million Americans. Geographic access varies significantly and is often lower in areas with a higher proportion of people of color, adding to health disparities.

Primary care, widely identified as the cornerstone of the health care system, serves as a usual source of care focused on both acute and chronic disease detection, management, treatment, and prevention.¹ Efforts to define primary care often start with a broad scope of services and general attributes and are often described in contrast to health care services provided for acute or urgent needs or within a hospital or surgical setting.

Access and Outcomes

Access to primary care has multiple dimensions: availability or resources, accessibility or how close a delivery site is to where a person lives or works, accommodation or the hours that the delivery site operates, affordability or cost of care and acceptability or how well the care that is offered matches a person's individual needs and preferences such as through the availability of care in different languages.² Accessibility is the most well studied in association with individual and population health, consistently showing a positive impact.³ Early studies in the 1990s found an association between a higher ratio of primary care physicians at a state-level and population-level health outcomes such as lower all-cause mortality and mortality from heart disease, cancer, stroke, as well as infant mortality.⁴ Presence of primary care providers is also associated with increased life span, reduction in infant low birth weight, better overall patient experience, and a person's self-rated health.^{5,6,7}

Access to regular, high-quality care is a challenge for many. Analysis of urban census tracts show lower levels of access to primary care in areas with a higher proportion of black Americans.⁸ Those living in rural areas also have lower levels of access to primary care.⁹ A primary care delivery site may be located in close geographic proximity but may not be of high quality, may have hours that render it inaccessible, or the providers may not be taking new patients. In a report from the Primary Care Collaborative, the authors note that "*consistent and growing evidence shows that primary care-oriented systems achieve better health outcomes, more health equity, and lower costs.*"¹⁰ A lack of a sufficient primary care workforce is a growing issue that impacts accessibility in Washington State as well as nationally.¹¹

These issues are influenced and compounded by low reimbursement for primary care compared to specialty care and hospital care, with the United States spending between 5-7% of total health care expenditure on primary care and Washington State spending between 4.4% to 5.6% of total expenditure on primary care.^{10,12} Low reimbursement leads to not enough time being spent with an individual patient. The authors of Primary Care: Is there enough time for prevention argue that there is not currently enough time for a primary care provider to deliver all the services recommended by the US Preventive Services Task Force to a complete panel of patients and would need a 50% reduction in the panel size.¹³

Recommendation Framework

The workgroup’s goal is to foster a common understanding of primary care to increase primary care accessibility and availability.

Defining Primary Care	Team-based care led by an accountable provider that serves as a person’s source of first contact with the larger healthcare system and coordinator of services that the person receives. Primary care includes a comprehensive array of appropriate, evidence-informed services to foster a continuous relationship over time.
Paying for Primary Care	<ul style="list-style-type: none"> • Payment to incent practice transformation • Multi payer per member/beneficiary per month fee • Performance-based incentive
Measuring Primary Care	Millbank: Based in claims, specific set of pre-defined services delivered by pre-defined primary care providers not limited to an ambulatory setting.
Components of Primary Care with Large Impact	<ul style="list-style-type: none"> • Care coordination • Screenings (e.g., behavioral health, cancer) • Chronic care management • Medication management

The Knoster model for managing complex change argues that for a successful change to occur, a system needs vision, skills, incentives, resources, and an action plan¹⁴. The lack of any of these elements leads to confusion, anxiety, resistance, frustration, or false starts, respectively.

- Vision – Outlined in these Bree Collaborative recommendations (needed to overcome confusion)
- Skills – Already exist (needed to overcome anxiety)
- Incentives – HCA Transformation of Care Fee (needed to overcome resistance)
- Resources – Comprehensive Primary Care Payment (CPCP), fixed, monthly PMPM payment (needed to overcome frustration)
- Action Plan – Outlined in these recommendations (needed to overcome false starts)

Checklists

Primary Care Site

Language in italics adapted from <https://www.oregon.gov/oha/HPA/dsi-pcpch/Documents/TA-Guide.pdf> or the HCA plan

- Accountability:** Active patients are assigned to a primary care provider as defined in the RCW who is responsible for advanced clinical judgment
- Access**
 - **Remote:** home visits, digital modalities, non-traditional person-to-person modalities and community locations
 - **Language:** *offers and/or uses either providers who speak a patient and family's language at time of service in-person or telephonic trained interpreters to communicate with patients and families in their language of choice*
- First Contact:** ???
- Comprehensive:** Site routinely offers services that address multiple organ systems including active management of chronic diseases, acute care for minor illnesses and injuries, office-based procedures and diagnostic tests; preventive services such as cancer screenings; patient education and self-management support.
- Comprehensive – Behavioral Health:**
 - Patients are screened for depression, anxiety, alcohol use, other drug use, tobacco, and suicidality
 - Behavioral health providers are available using coordinated, co-located, or integrated models
- Continuous:** Report patient visits with assigned clinician or team
- Coordinated**
 - **Clinical Information:** *Health record for each patient that contains at least the following elements: problem list, medication list, allergies, basic demographic information, preferred language, BMI/BMI percentile/growth chart as appropriate, and immunization record; and updates this record as needed at each visit.* Parenting intention?
 - **Care Plan:** Health record includes a care plan that can be shared
 - **Offsite Referrals:** Agreements or contracts among providers, plans, and other organizations to coordinate transitions including emergency department and inpatient visits, residential and partial treatment facility stays, stays at substance abuse treatment facilities, and community resources
 - **Tracking Referrals:** Tracking referrals, following up on over-due responses and closing care gap
- Appropriate:**
 - Evidence-based
 - Patients are support patient and family self-management, self-efficacy, shared decision making, and behavior change
- Experience:** *sample of its patients and families at least every two years on their experience of care. The patient survey must include questions on access to care, provider or health team communication, coordination of care, and staff helpfulness*
- Data**
 - *Analyze and identify whole person needs at a population level and develop processes to meet those needs*

- *Systematically identify referral patterns and adjust to improve patient outcomes and reduce cost and unnecessary care*
- *Identify hospitals and EDs responsible for the majority of patients' hospitalizations and ED visits, and assess and improve timeliness of notification and information transfer*
- *Enhance quality and evaluate effectiveness over time*
- *Identify and implement behavioral health integration processes*
- *Identify opportunities to work with ACHs to improve community supports*

Patients and Family Members

- Select a primary care provider who meets your needs
- Think about your broad health and wellness-related goals and how your provider and care team might help you meet these goals
- In situations where different options are available, give your provider(s) information about your values and preferences, and discuss options, tradeoffs, and implications of a decision together

Health Plans

- *Align payment approaches, which will be tied to measurable value metrics and may include a combination of transformation of care fees, comprehensive payments, and performance-based incentive payments including Transformation of Care Fee (TCF) Comprehensive Primary Care Payment (CPCP) Performance Incentive Payment (PIP)*
- *Agree to an incremental and defined percent (%) of spend on primary care as a proportion of total cost of care, not including labs and prescription drug costs, and considering a range of practitioners, multi-disciplinary teams, and care modalities including telehealth and other non-traditional person-to-person modalities. Percent of spend may be tiered, based on achievement of specified measures of transformation, increased quality, improved health and reduction in total cost of care.*

Employers

- ???

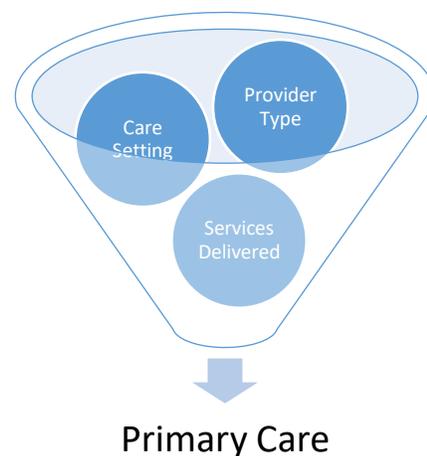
Defining Primary Care

The concept of primary care was first introduced in the 1920s and described by the Institute of Medicine (IOM) in 1978 as being “*accessible, comprehensive, coordinated, continuous, and accountable.*”¹⁵ Barbara Starfield further describes primary care as being characterized by first-contact care and being longitudinal and comprehensive.¹⁶ Primary care can further be defined as including advocacy, taking place in the context of a community context and family, including goal-oriented care and health promotion, being integrated, and being based on a relationship.¹⁷ In many studies, primary care is defined by four Cs: first-contact care that is comprehensive in addressing a wide variety of issues from sprains to behavioral health to prenatal care, is continuous with multiple touch-points over time, and is coordinated. In order to know whether primary care spend is increasing in the state, Washington must first develop an agreed upon definition of primary care that will allow for accurate measurement.

The IOM categorizes possible definitions into care provided by certain clinicians, a particular set of activities, a level or setting of care, the attributes themselves, or as a strategy for organizing a system.¹⁸ More simply, primary care can be defined broadly as consisting of the care provided by a subgroup of medical providers, the set of functions that providers within and outside of that subgroup perform, and/or a general orientation of a health delivery system.¹⁹ A family medicine physician may order a thyroid test which would be considered part of primary care while an endocrinologist ordering that same test may not necessarily be considered primary care. These provider, service, and system categories have been expanded by Millbank into:²⁰

- **Provider:** All the services delivered by pre-defined primary care providers in an ambulatory setting.
- **Service:** Services that meet particular definitions including being: comprehensive, first-contact for a wide variety of (not limited) conditions, coordinated, and taking place over time (longitudinal).
- **Service:** All office visits and preventative services within a category independent of the provider type.
- **Service and Provider:** Based in claims, specific set of pre-defined services delivered by pre-defined primary care providers not limited to an ambulatory setting.
- **Health systems:** Primary care delivered at a system level, useful for capitated systems but most difficult to measure.

In Washington State, primary care provider is defined as “a general practice physician, family practitioner, internist, pediatrician, osteopathic physician, naturopath, physician assistant, osteopathic physician assistant, and advanced registered nurse practitioner licensed under Title 18 RCW.”²¹ The workgroup sought to operationalize the four C’s described above to develop a standardized



definition: Team-based care led by an accountable provider that serves as a person's source of first contact with the larger healthcare system and coordinator of the health care services that the person receives. Primary care includes a comprehensive array of appropriate, evidence-informed services to foster a continuous relationship over time.

If primary care is yes to ALL of the following:

1. **Accountability** through a team and/or provider that includes physical health, behavioral health, and care coordination. Advanced clinical judgement for a person's care/panel of patients lies with one of the following:
 - Doctor of Medicine – General practice, Family Practice, Internal Medicine, Geriatrics, Pediatrics, Adolescent Medicine
 - Doctor of Osteopathic Medicine - General practice, Family Practice, Internal Medicine, Geriatrics, Pediatrics, Adolescent Medicine
 - Advance Registered Nurse Practitioner – Family, Adult, Pediatric, Women's Health
 - Physician Assistant – Family, Adult, Pediatric, Women's Health
 - Osteopathic Physician Assistant – Family, Adult, Pediatric, Women's Health
 - Naturopath

Other team members can include but are not limited to: psychologist, psychiatrist, social worker, registered nurse, medical assistant, care coordinator, etc.
2. **First Contact** – Does the team assess, triage, and direct a person's health or health care issues as they arise?
3. **Comprehensive** – Does the team care for the whole person and provide services that address multiple organ systems including active management of chronic physical (e.g., COPD, diabetes) and behavioral health (e.g., depression, anxiety, substance use disorder) conditions as well as USPSTF recommended screening and preventive services?
4. **Continuous** – Does the team maintain or attempt to develop a longitudinal relationship?
5. **Coordinated** – Does the team take responsibility for a person's care through managing a care plan in coordination with a multidisciplinary team and/or with offsite referrals?
6. **Appropriate** – Does the team provide evidence-based, person-centered medicine that includes behavioral health?

Measurement

Measurement is limited by the way that available data is structured, predominantly derived from fee-for-service claims. Developing a mechanism to measure primary care using the four Cs described above (first contact, comprehensive, continuous, and coordinated) is difficult using claims data as these aspects are not necessarily reflected in codes that are billed. Further, the lack of a nationally accepted definition of primary care is a major impediment to assessing and increasing the primary care expenditures uniformly across states. More information on healthcare cost data is available [here](#).

The Washington State Office of Financial Management (OFM) was mandated by legislation to develop a report published in December 2019. The report notes that comparisons between Washington's percent expenditure and either the national average or other states' reported expenditures are likely misleading due to these differing definitions. For example, Washington does not currently include non-claims-based care (e.g., care coordination activities) in the measure of primary care, but Oregon and Rhode Island do; this may artificially lower Washington's numbers.¹²

In order to develop a proxy for what would be true primary care measurement, groups have operated on various assumptions. If defining by provider, the assumption is that a group of subspecialists (i.e., family medicine) always offers primary care and that other groups of subspecialists never provide primary care (i.e., emergency medicine). This assumption holds true for some but not all disciplines. Advance registered nurse practitioners and physician assistants practice in a multitude of settings, including surgical care, which is not reflected in a claim. The 2019 OFM report adjusted the total claims from ARNPs and PAs by 41% and 34%, respectively.

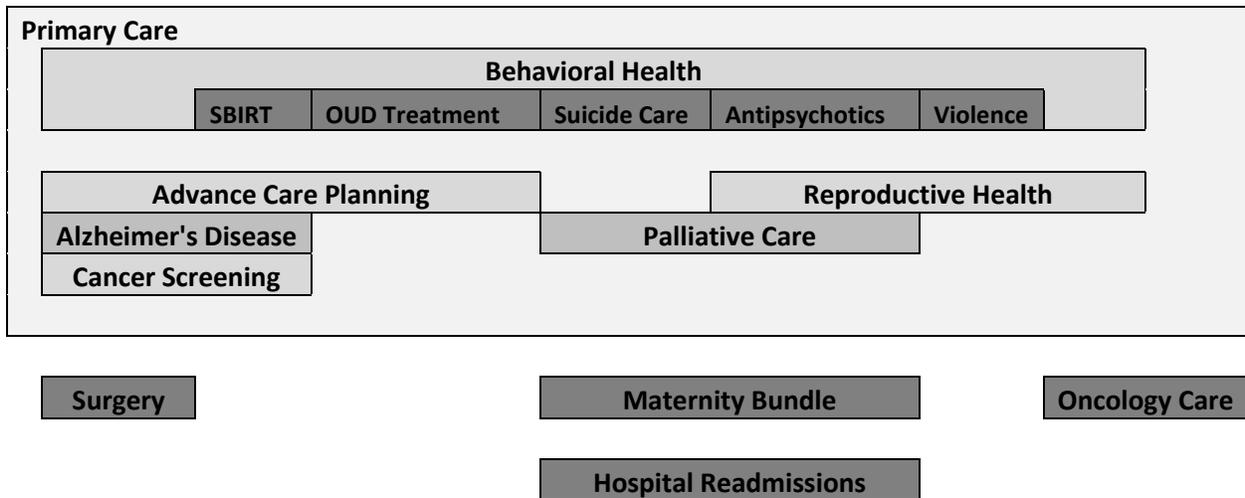
The OFM report presents narrow and broad definitions of primary care, differing based the types of providers who are assumed to be providing primary care. The narrow definition only includes providers who are traditionally considered to perform primary care while the broad definition includes a wider range of provider taxonomy codes includes behavioral health providers, clinical nurse specialists, registered nurses, midwives, and a host of other providers who are not typically considered general practitioners.¹² The OFM stakeholder group also reviewed procedure codes and created both narrow and broad definitions of services qualifying as primary care. Only claims which met both the provider and service definitions of primary care were counted toward the state's total expenditure, with the narrow definition yielding 4.4% and the broad 5.6%.¹²

However, the OFM report noted that deficiencies inherent to the Washington All Payor Claims Database claims database, combined with lack of a firm definition for primary care, limit the report's accuracy in some regards. Claims data does not capture, for example, whether or not the location of services provided was a primary care clinic. As was mentioned earlier, Washington lacks a way to measure non-claims-based expenditures. The OFM report mentions a number of other systemic impediments to accurate measurement that may need to be addressed in order to calculate an accurate primary care expenditure percentage for the state.¹²

Content of Care

- Universal Measurement
 - Height + weight + blood pressure
 - Depression + Anxiety + Suicidality
 - Alcohol Use + Drug Use
 - Housing + Food/Diet + Transportation
 - Unintentional injury exposure (gun safety, seatbelts, helmets)
 - Experience of bias?
- Universal Education - Violence etc
- Vaccines
- Appropriate Screening (based on age, risk category)
 - Cancer
 - Cognitive
 - STI from sexual history etc
- Wellness management/chronic disease management
- My unique concerns (e.g., warts, low back pain, etc)

Alignment with Previous Recommendations



Per Member Per Month

Various entities have proposed mechanisms to enhance the provision of primary care to a defined population including state Medicaid agencies, health plans, organizations representing private purchasers of healthcare, or employer purchaser organizations. The Centers for Medicare and Medicaid Services (CMS) launched Comprehensive Primary Care Plus (CPC+) in 18 select regions starting January 2017 using a per benefit per month (PBPM) and a performance incentive based on patient experience measures, clinical quality measures, and utilization measures.²² The model seeks to strengthen primary care through a public-private partnership focused on enhancing access and continuity; care management; comprehensiveness and coordination; patient and caregiver engagement; and planned care and population health. The model has two tracks, one that will continue to bill Medicare fee for service and the other that will move from fee for service to a Comprehensive Primary Care Payment, which will be paid in a lump sum on a quarterly basis absent a claim. More information [here](#).

State Medicaid agencies and private health plans located in the 18 regions variously elected to join in the CPC+ model. Ohio Medicaid's Ohio Comprehensive Primary Care has ten requirements to qualify for the program: community services and supports integration, behavioral health integration, 24/7 and same day access to care, risk stratification, population health management, team-based care delivery, care management plans, follow-up after hospital discharge, tests and specialists referrals, and patient experience.²³ Similarly, in Missouri, Blue Cross Blue Shield of Kansas City and UnitedHealthcare have partnered with public payers to enhance primary care around Comprehensive Primary Care Plus.²⁴

Independent and prior to CMS, the Oregon Health Authority developed and established the Patient Centered Primary Care Home Program due to state legislation in 2009. The program sets standards, certifies individual practices, and works to incentivize the population's use of the certified primary care homes.²⁵ Core attributes of the program include: access to care; accountability; comprehensive, whole-person care; continuity; and person and family-centered care with 11 must-pass standards such as offering advice through telephone and five possible tiers.²¹ All of the following are able to become a certified primary care home: Physical health providers; Behavioral, addictions and mental health care providers with integrated primary care services; Solo practitioners; Group practices; Community mental health centers with integrated primary care services; Rural health clinics; Federally qualified health centers; and School-based health centers.

Attribution

Decisions for attribution:

unit of analysis (patient versus episode of care); signal for responsibility (professional costs versus number of evaluation and management visits); number of physicians that can be assigned responsibility (single physician versus multiple); and minimum threshold for assigning responsibility (majority of visits or costs versus plurality of visits or costs).²⁶

Examples from Shared Decision Making Report

Options for tracking shared decision making are below including those aligning with value-based reimbursement models from the Bree Collaborative and Federal programs:

- **Shared Decision Making Process**

Steward: Massachusetts General Hospital

NQF #2962

This measure assesses the extent to which health care providers actually involve patients in a decision-making process when there is more than one reasonable option. This proposal is to focus on patients who have undergone any one of seven common, important surgical procedures: total replacement of the knee or hip, lower back surgery for spinal stenosis of herniated disc, radical prostatectomy for prostate cancer, mastectomy for early stage breast cancer or percutaneous coronary intervention (PCI) for stable angina. Patients answer four questions (scored 0 to 4) about their interactions with providers about the decision to have the procedure, and the measure of the extent to which a provider or provider group is practicing shared decision making for a particular procedure is the average score from their responding patients who had the procedure.

- **Informed, Patient-Centered Hip and Knee Replacement Surgery**

NQF #2958

Steward: Massachusetts General Hospital

The measure is derived from patient responses to the Hip or Knee Decision Quality Instruments. Participants who have a passing knowledge score (60% or higher) and a clear preference for surgery are considered to have met the criteria for an informed, patient-centered decision. The target population is adult patients who had a primary hip or knee replacement surgery for treatment of hip or knee osteoarthritis.

Appendix C: Guideline and Systematic Review Search Results

	Year	Title	Summary or Findings
<p>AHRQ: Research Findings and Reports</p>	2019	<p>Achieving Health Equity in Preventive Services</p>	<p>No eligible studies evaluated effects of provider-specific barriers; 18 studies of population barriers provided low or insufficient evidence regarding insurance coverage, access, age, rural location, low income, language, low health literacy, country of origin, and attitudes. In 12 studies of clinician interventions, screening was higher for colorectal cancer with patient navigation, risk assessment and counseling, educational materials, and decision aids; breast and cervical cancer with reminders involving lay health workers; and cervical cancer with outreach and health education. Clinician-delivered interventions were effective for smoking cessation and weight loss. In 11 studies of health information technologies, automated reminders and electronic decision aids increased colorectal cancer screening, and web- or telephone-based self-monitoring improved weight loss, but other technologies were not effective. In 88 studies of health system interventions, evidence was strongest for patient navigation to increase screening for colorectal (risk ratio [RR] 1.64; 95% confidence interval [CI] 1.42 to 1.92; 22 trials), breast (RR 1.50; 95% CI 1.22 to 1.91; 10 trials), and cervical cancer (RR 1.11; 95% CI 1.05 to 1.19). Screening was also higher for colorectal cancer with telephone calls, prompts, other outreach methods, screening checklists, provider training, and community engagement; breast cancer with lay health workers, patient education, screening checklists, and community engagement; cervical cancer with telephone calls, prompts, and community engagement; and lung cancer with patient navigation. Trials of smoking cessation and obesity education and counseling had mixed results. In populations adversely affected by disparities, evidence is strongest for patient navigation to increase colorectal, breast, and cervical cancer screening; telephone calls and prompts to increase colorectal cancer screening; and reminders including lay health workers encouraging breast cancer screening. Evidence is low or insufficient to determine effects of barriers or effectiveness of other interventions because of lack of studies and methodological limitations of existing studies.</p>
	2016	<p>Improving Cultural Competence to Reduce Health Disparities</p>	<p>None of the included studies measured the effect of cultural competence interventions on health care disparities. Most of the training interventions measured changes in professional attitudes toward the population of interest but did not measure the downstream effect of changing provider beliefs on the care delivered to patients. Interventions that altered existing protocols, empowered patients to interact with the formal health care system, or prompted provider behavior at the point of care were more likely to measure patient-centered outcomes. The medium or high risk of bias of the included studies, the heterogeneity of populations, and the lack of measurement consensus prohibited pooling estimates or commenting about efficacy in a meaningful or responsible way. The term "cultural competence" is not well defined for the LGBT and disability populations, and is often conflated with patient-centered or individualized care. There are many gaps in the literature; many large subpopulations are not represented.</p>

2012	Narrow band imaging versus conventional white light colonoscopy for the detection of colorectal polyps	We could not find convincing evidence that NBI is significantly better than high definition WLC for the detection of patients with colorectal polyps, or colorectal adenomas. We found evidence that NBI might be better than standard definition WLC and equal to high definition WLC for detection the patients with colorectal polyps, or colorectal adenomas.
2016	Interventions to encourage uptake of cancer screening for people with severe mental illness	A comprehensive search showed that currently there is no RCT evidence for any method of encouraging cancer screening uptake in people with SMI. No specific approach can therefore be recommended. High-quality, large-scale RCTs are needed urgently to help address the disparity between people with SMI and others in cancer screening uptake.
2019	Follow-up strategies for patients treated for non-metastatic colorectal cancer	The results of our review suggest that there is no overall survival benefit for intensifying the follow-up of patients after curative surgery for colorectal cancer. Although more participants were treated with salvage surgery with curative intent in the intensive follow-up groups, this was not associated with improved survival. Harms related to intensive follow-up and salvage therapy were not well reported.
2013	Personalised risk communication for informed decision making about	There is strong evidence from three trials that personalised risk estimates incorporated within communication interventions for screening programmes enhance informed choices. However the evidence for increasing the uptake of such screening tests with similar interventions is weak, and it is not clear if this increase is associated with informed choices. Studies included a diverse range of screening programmes. Therefore, data from this review do not allow us to draw conclusions about the best interventions to deliver personalised risk communication for enhancing informed decisions. The results are dominated by findings

[taking screening tests](#)

from the topic area of mammography and colorectal cancer. Caution is therefore required in generalising from these results, and particularly for clinical topics other than mammography and colorectal cancer screening.

2017 [Decision aids for people facing health treatment or screening decisions](#)

Compared to usual care across a wide variety of decision contexts, people exposed to decision aids feel more knowledgeable, better informed, and clearer about their values, and they probably have a more active role in decision making and more accurate risk perceptions. There is growing evidence that decision aids may improve values-congruent choices. There are no adverse effects on health outcomes or satisfaction. New for this updated is evidence indicating improved knowledge and accurate risk perceptions when decision aids are used either within or in preparation for the consultation. Further research is needed on the effects on adherence with the chosen option, cost-effectiveness, and use with lower literacy populations.

Veterans Administration Evidence-based Synthesis Program Health Technology Assessment Program Centers for Disease Control and Prevention Institute for Clinical and Economic Review

2019 [What is the Optimal Panel Size in Primary Care? A Systematic Review](#)

In 2009, the Veterans Health Administration Handbook 1101.02 established a baseline panel size of 1,200 patients for a full-time physician in a Patient Aligned Care Team (PACT). This number could be adjusted up or down based on availability of support staff, the number of examination rooms, and patient complexity. After adjustment for these factors, panels ranged from 1,000 to 1,400. Veterans Health Administration (VHA) Directive 1406 reaffirmed both the baseline panel numbers and adjustment parameters.

None

N/a

2008 [Computed tomography \(CT\) colonography](#)

Given the possible benefits of introducing a widely available minimally-invasive option for colorectal cancer screening, there is considerable interest in CTC.

Appendix D:

Figure 2: Care Provided Over the Course of a Person’s Life: Doris



References

- ¹ Blewett LA, Johnson PJ, Lee B, Scal PB. When a usual source of care and usual provider matter: adult prevention and screening services. *J Gen Intern Med*. 2008;23(9):1354–1360. doi:10.1007/s11606-008-0659-0 When a Usual Source of Care and Usual Provider Matter: Adult Prevention and Screening Services
- ² Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. *Med Care*. 1981;19(2):127-140. 1
- ³ Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q*. 2005;83(3):457-502.
- ⁴ Shi L. Primary care, specialty care, and life chances. *Int J Health Serv*. 1994; 24(3):431-58.
- ⁵ Vogel RL, Ackermann RJ. Is primary care physician supply correlated with health outcomes? *Int J Health Serv*. 1998; 28(1):183-96.
- ⁶ Levine DM, Landon BE, Linder JA. Quality and Experience of Outpatient Care in the United States for Adults With or Without Primary Care [published correction appears in *JAMA Intern Med*. 2019 May 1;179(5):733] [published correction appears in *JAMA Intern Med*. 2019 Jun 1;179(6):854]. *JAMA Intern Med*. 2019;179(3):363-372. doi:10.1001/jamainternmed.2018.6716
- ⁷ Macinko J, Starfield B, Shi L. Quantifying the health benefits of primary care physician supply in the United States. *Int J Health Serv*. 2007;37(1):111-126.
- ⁸ Brown EJ, Polsky D, Barbu CM, Seymour JW, Grande D. Racial Disparities In Geographic Access To Primary Care In Philadelphia. *Health Aff (Millwood)*. 2016;35(8):1374-1381.
- ⁹ Access to Rural Health Care – A Literature Review and New Synthesis. Available: http://www.rupri.org/Forms/HealthPanel_Access_August2014.pdf
- ¹⁰ Primary Care Collaborative. Investing in Primary Care: A State-Level Analysis. <https://www.pcpc.org/resource/evidence2019>
- ¹¹ Schwartz MD. Health care reform and the primary care workforce bottleneck. *J Gen Intern Med*. 2012;27(4):469-472. doi:10.1007/s11606-011-1921-4
- ¹² Washington State Office of Financial Management. Primary Care Expenditures Report Summary of current primary care expenditures and investment in Washington. December 2019.
- ¹³ Yarnall KS, Pollak KI, Østbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention?. *Am J Public Health*. 2003;93(4):635-641. doi:10.2105/ajph.93.4.635
- ¹⁴ <https://practices.learningaccelerator.org/strategies/tool-knooster-model-for-managing-complex-change>
- ¹⁵ Institute of Medicine (IOM) A Manpower Policy for Primary Health Care. Washington, D.C.: National Academy of Sciences; 1978. IOM Publication 78-02.
- ¹⁶ Starfield 1992
- ¹⁷ Etz RS, Zyzanski SJ, Gonzalez MM, Reves SR, O'Neal JP, Stange KC. A New Comprehensive Measure of High-Value Aspects of Primary Care. *Ann Fam Med*. 2019;17(3):221-230.
- ¹⁸ Institute of Medicine (US) Committee on the Future of Primary Care; Donaldson MS, Yordy KD, Lohr KN, et al., editors. Primary Care: America's Health in a New Era. Washington (DC): National Academies Press (US); 1996. 2, Defining Primary Care. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK232631/>
- ¹⁹ Friedberg MW, Hussey PS, Schneider EC. Primary care: a critical review of the evidence on quality and costs of health care. *Health Aff (Millwood)*. 2010;29(5):766-772.
- ²⁰ Bailit MH, Friedberd MW, Houy ML. Standardizing the Measurement of Commercial Health Plan Primary Care Spending. *Milbank Memorial Fund*. July 2017.
- ²¹ RCW 74.09.010. Available:
- ²² <https://innovation.cms.gov/innovation-models/comprehensive-primary-care-plus>
- ²³ <https://www.medicaid.ohio.gov/Portals/0/Providers/PaymentInnovation/CPC/ActivityRequirements.pdf>
- ²⁴ <https://www.pcpc.org/initiative/greater-kansas-city-missouri-comprehensive-primary-care-plus>
- ²⁵ <https://www.oregon.gov/oha/HPA/dsi-pcpc/Docs/TA-Guide.pdf>
- ²⁶ Mehrotra A, Adams JL, Thomas JW, McGlynn EA. The effect of different attribution rules on individual physician cost profiles. *Ann Intern Med*. 2010;152(10):649-654