An Innovative Model for Primary Care Office Payment: Environmental Scan/Annotated Bibliography

The research questions guiding the environmental scan and the search strategy are described in detail in the attached appendix. The components of the annotated bibliography below (with citations of sources) are grouped into topic areas with main points relevant to the proposal review outlined below.

BRIEF DESCRIPTION OF THE PROPOSAL

The model submitted by Jean Antonucci, MD proposes a primary care capitation model where monthly payments to providers are fixed and two-tiered based on the risk level of the patient as determined by a free proprietary tool that assesses patient reported health, entitled the What Matters Index, or WMI. Independent small primary care practices are the target participants for this model and the patient population would include Medicare-insured patients as a portion of the overall population.

Iora Health is highlighted as an example of a medical practice that operates on a capitated fee schedule. Iora Health has at least 30 current practices across the U.S. with at least 150 employees. As of 2015, Iora Health has 22 primary care practices, and plans to expand the number of practices in the future.

Features of Antonucci's primary care capitation model include:

- \$60 PBPM for low- to moderate- risk patients; \$90 PBPM for more complex patients.
- Withholding 15% of payments until quality measure outcomes are met.
- Capitation itself would constitute the main risk to providers as there would not be FFS payment or billing for services or equipment except for a few expensive items that would be billed separately, e.g. IUDs.
- Panel sizes would be capped which, combined with the 15% potential penalty, is to prevent practices from increasing volume to increase payments and compromising care.

SUBMITTING ORGANIZATION

Jean Antonucci, MD is a family practice physician who has practiced in western Maine for 25 years. She leads the nonprofit organization called Ideal Medical Practices (IMP) which provides support to over 30 primary care practices around the country that comprise six or fewer physicians.

As a recognized level 3 National Committee for Quality Assurance (NCQA) Patient-Centered Medical Home (PCMH), IMP has demonstrated strong performance or significant improvement in performance measures of patient experience, health outcomes, and reducing costs.³

This model is heavily reliant on the use of questionnaires and indices found for patient reporting on the How's Your Health (HYH) website, owned by Trustees of Dartmouth College. Although proprietary, the

¹ Iora Health (2018). The Practices Changing Primary Care. Retrieved from http://www.iorahealth.com/practices/list-of-offices/. Accessed on June 6, 2018.

² Barlett, J. (2015). Iora Health Model Plans to Double Number of Sites after \$28M Funding. *Boston Business Journal*. Retrieved from https://www.bizjournals.com/boston/blog/health-care/2015/02/iora-health-model-plans-to-double-number-of-sites.html. Accessed on June 6, 2018.

³ NCQA (n.d.) Patient-Centered Medical Home (PCMH) Recognition. Retrieved from http://www.ncqa.org/programs/recognition/practices/patient-centered-medical-home-pcmh. Accessed on June 6, 2018.

tools contained therein are free of charge to use and data is aggregated for assessment and benchmarking purposes.

THE STATE OF PRIMARY CARE PRACTICE IN THE US

Primary Care Workforce Facts and Stats: Overview

Agency for Healthcare Research and Quality (2012). Primary Care Workforce Facts and Stats: Overview (No. 12-P001-1-EF). Retrieved from AHRQ's website at: https://www.ahrq.gov/sites/default/files/publications/files/pcworkforce.pdf

Key Points

- In 2010, an estimated 209,000 PCPs were practicing in the U.S.
- In 2008, 490 million visits to PCPs were made, with over half to physician offices.
- There is slow growth of PCPs in the U.S.; approximately one-third of physicians currently practicing in primary care, but less than one-fourth of current medical school graduates will be working in the primary care field.

Updated Data on Physician Practice Arrangements: Physician Ownership Drops Below 50 Percent

Kane, C. K. (2017). Updated Data on Physician Practice Arrangements: Physician Ownership Drops Below 50 Percent. *American Medical Association Economic and Health Policy Research*. Retrieved from AMA's website at: https://www.ama-assn.org/sites/default/files/media-browser/public/health-policy/PRP-2016-physician-benchmark-survey.pdf

Key Points

- In 2016, for the first time less than half of practicing physicians are owners or part-owners of their practices
- 57.8 percent of physicians still work in practices with 10 or fewer physicians—there is a shift towards larger practices in the last five years with about 13.8 percent of physicians working in practices with 50 or more physicians
- The percentage of physicians who worked in practices with fewer than 5 physicians fell slightly from 41 in 2014 to 38 percent in 2016.

PAYMENT IN PRIMARY CARE SETTINGS

Capitation in Primary Care Setting

The submitter discusses capitation to be a simple solution to provide incentives for primary care physicians (PCPs) to deliver high quality care to their patients. There is evidence of success for a capitation approach for small family physician practices.

Payment Methods and Benefit Designs: How They Work and How They Work Together to Improve Health Care

Berenson, R.A., Upadhyay, D.K., Delbanco, S.F., & Murray, R. (2016). Payment Methods and Benefit Designs: How They Work and How They Work Together to Improve Health Care. *Urban Institute*. Retrieved from the Urban Institute website: http://www.urban.org/research/publication/payment-methods-how-they-work

Key Points

- Primary care capitation would place clinicians at "performance risk", which may reduce unnecessary services.
- Capitation provides clinicians more flexibility to individualize care for their patients. However, clinicians may be deterred from caring for more complex patients and refer these patients to specialists. There is also the possible risk of stinting on care and increasing total cost of care.
- The perverse incentive to refer patients to specialists may be reduced by imposing financial disincentives or penalties for excessive referrals and downstream health care spending.

Payment Reform to Support Lasting Practice Reform in Primary Care

Goroll, A. H. (2011). Payment Reform to Support Lasting Practice Reform in Primary Care. *Journal of Ambulatory Care Management*, 34(1), 33–37. https://doi.org/10.1097/JAC.0b013e3181ff9325

Key Points

- Improvement in the fee-for-service (FFS) system based on the resource-based relative value scale (RBRVS) is needed, especially in the setting of patient-centered medical homes (PCMHs).
- PCMHs are viewed as a crucial element of health care reform. Investment in primary care is needed to establish and sustain PCMHs.
- Current reimbursements under RBRVS-based fee-for-service payments are deemed insufficient to support multidisciplinary teams and HIT to transform health care.
- A combination of FFS, capitation, salary, and pay for performance (P4P), is suggested to enhance efforts to reform payment.

American Medical Home Runs

Milstein, A., & Gilbertson, E. (2009). American Medical Home Runs. *Health Affairs*, 28(5), 1317–1326. https://doi.org/10.1377/hlthaff.28.5.1317

Key Points

- There were four different types of primary care sites that paid physicians by capitation without reducing quality of care. These patients incurred 15-20 percent less risk-adjusted total health care spending per year compared to patients treated by regional peers.
- One of the four different types of medical practices includes Redlands Family Practice, which is a small practice of three family practice physicians.
- There were three common pivotal features found for those four sites: 1) exceptional individualized care tailored to preventing ED use and unplanned hospitalization for chronic illness; 2) efficient service provision; 3) careful selection of, and coordination with, medical specialists.

Outcomes of Current Reforms in Primary Care

Rhode Island's Office of the Health Insurance Commissioner (RIOHIC) created an initiative to invest in primary care spending for the aim of reducing overall Medicare spending. The concept aligns with Antonucci's aim in her proposal. The potential in reduction of Medicare spending depends on a few factors, including a capped patient panel size and payments for PCMHs.

Rhode Island's Novel Experiment to Rebuild Primary Care from the Insurance Side

Koller, C. F., Brennan, T. A., & Bailit, M. H. (2010). Rhode Island's Novel Experiment To Rebuild Primary Care From The Insurance Side. *Health Affairs*, *29*(5), 941–947. https://doi.org/10.1377/hlthaff.2010.0136

Key Points

- RIOHIC aimed to bolster primary care infrastructure by developing an initiative in 2010. This
 initiative redistributed expenditures from other parts of the health care system in order to
 almost double the proportion of expenses targeted to primary care.
- Because the initiative pertained to state-regulated payers, Medicare and Medicaid were not
 regulated. The initiative proved to be only a partial solution to the need to reform health care.
 The initiative further highlighted the weak integration of PCPs with hospitals and hospital
 affiliated groups. Rhode Island noted the integration of PCPs is significant in the concept of
 accountable care organizations, which may become the focus of true health reform.

Rhode Island Health Insurance Commissioner

Primary Care Spending Report 2013 (2014). Office of the Health Insurance Commissioner State of Rhode Island. Retrieved from OHIC's website at: http://www.ohic.ri.gov/documents/Primary-Care-Spending-generalprimary-care-Jan-2014.pdf

Key Points

- As a result of the initiative implemented in 2010 by Rhode Island's Office of the Health
 Insurance Commissioner, primary care spending increased while total medical spending
 decreased. However, the decreasing rate in total spending is slower than the increasing rates of
 primary care costs.
- Since the PCMHs specified in this article are not based on FFS payments, the costs of PCMHs themselves may drive primary care spending. Approximately 17 percent in 2012 and 30 percent in 2013 of medical home spending was spent on Rhode Island's PCMH.

Estimating a Reasonable Patient Panel Size for Primary Care Physicians With Team-Based Task Delegation

Altschuler, J., Margolius, D., Bodenheimer, T., & Grumbach, K. (2012). Estimating a Reasonable Patient Panel Size for Primary Care Physicians With Team-Based Task Delegation. *The Annals of Family Medicine*, 10(5), 396–400. https://doi.org/10.1370/afm.1400

- The article advocates for a proposed Organized Team Model to promote the building of an interdisciplinary care team to allow physicians to practice high quality primary care for a large but manageable panel size.
- With capped panel sizes, primary care practices can provide higher quality preventative and chronic care that would be achievable with larger panel sizes.
- The average US panel size is about 2,300. It is suggested that the average PCP would need to spend over 21 hours a day to provide comprehensive and high quality primary care for a panel of this size.

Antonucci's Ideal Medical Practice is cited in this article as an example of a concierge practice
with a low-overhead and fewer than 1,000 patients. However, such small panel sizes for a
national model would be insufficient to provide primary care for the US population.

PATIENT-REPORTED OUTCOMES TO ASSESS QUALITY OF CARE

Background of the What Matters Index (WMI) and How's Your Health

The proposal discusses using a clinical assessment tool, WMI, provided through HowsYourHealth.org (HYH). HYH was created by Dr. John Wasson, a primary care physician, who has authored the following papers citing the scope and validity of WMI and documents its use. In the proposal, WMI is stated to have advantages over current computer-generated risk models (CRMs) and risk-designation models.

Validation of the What Matters Index: A brief, patient-reported index that guides care for chronic conditions and can substitute for computer-generated risk models

Wasson, J. H., Ho, L., Soloway, L., & Moore, L. G. (2018). Validation of the What Matters Index: A brief, patient-reported index that guides care for chronic conditions and can substitute for computer-generated risk models. PLOS ONE, 13(2), e0192475. https://doi.org/10.1371/journal.pone.0192475

Key Points

- The What Matters Index (WMI) evaluates five measures: 1) insufficient confidence to self-manage health problems; 2) pain; 3) bothersome emotions; 4) polypharmacy; 5) adverse medication effects.
- There is evidence of two WMI predictors, polypharmacy and adverse medication effects, accounting for a large percentage of preventable hospital and ED use.
- The WMI provides advantages including: 1) it has no direct cost; 2) increases health equity by
 evaluating needs of all patients, not just a select few; 3) strongly correlates with overall quality
 of life; 4) captures more specific data when compared to a computer-generated risk model
 (CRM).
- CRMs are typically constructed by reported diagnoses and test results. The WMI is constructed
 by input from patients, such as worrisome symptoms, specific functional limits, and quality of
 life.

Development of a care guidance index based on what matters to patients

Wasson, J. H., Soloway, L., Moore, L. G., Labrec, P., & Ho, L. (2018). Development of a care guidance index based on what matters to patients. *Quality of Life Research*, *27*(1), 51–58. https://doi.org/10.1007/s11136-017-1573-x

- WMI is measured on a scale of 0 to 5 for various categories; for example, a patient evaluated for prior emergency or hospital use with a sum of WMI ≥ 2 indicates that the patient's prior emergency or hospital use was twice as higher compared to the average.
- Risk-designation models have been used to estimate resources needed for the higher-risk subgroup of patients in chronic care, but administrative data used to establish these subgroups are not reliable. Data collected from WMI is argued to be an alternative to establish clinical prediction rules (CPRs) that accurately represent diagnoses and predict outcomes.

• Similar to risk-designation models, data from WMI may not accurately be associated with high cost care. However, WMI is established from measures that directly guide care for patients from a patient perspective, which is argued to be an advantage over risk-designation models.

Effects of Patient Reporting on Outcomes

The proposed tool, WMI, is an online assessment of patient reported outcomes. It is intended to guide care and determine payment based on five items, which are pain, emotional issues, polypharmacy, side effects of medication, and health care confidence. However, critics are skeptical about the relationship between entirely patient-reported outcomes and actual health outcomes.

Two Useful Tools to Improve Patient Engagement and Transition from the Hospital Lepore M., Wild D., Gil H., Lattimer C., Harrison J., Woddor N. and Wasson J.H. (2013) Cost and Revenue Report. Two Useful Tools to Improve Patient Engagement and Transition from the Hospital. *J Ambulatory Care Manage*, *36*(4), 338-344.

Key Points

- Patient experience was examined through an Internet-based health assessment. The report demonstrates how the assessment itself can efficiently increase health confidence.
- Results revealed that patient engagement prior to admission, and care coordination and communication during the hospitalization enhances patient-centered care and increases the rate of success in transitioning from hospital back to the community.

The Patient Experience and Health Outcomes

Manary, M. P., Boulding, W., Staelin, R., & Glickman, S. W. (2013). The Patient Experience and Health Outcomes. *New England Journal of Medicine*, *368*(3), 201–203. https://doi.org/10.1056/NEJMp1211775

Key Points

• There are three major concerns about using patient-reported measures: 1) obtaining accurate assessment of patient satisfaction; 2) patients may measure experiences that may not directly relate to care received; 3) reports of higher satisfaction with care may not correlate with increased health outcomes.

Social Determinants of Health

The proposal criticizes the current lack of incorporating social determinants of health (SDHs) into how care is delivered and assessments of care quality, and thus discusses the importance of using the WMI tool that includes SDH components. Although the HYH questions are not comprehensive in soliciting information regarding social determinants of health broadly, questions about emotional health, self-efficacy and exposures to smoking, drugs, and violence are included in the assessment. It is unclear how directly responses to SDH items relate to overall risk scoring, however.

Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity

Artiga, S. & Hinton, E. (2018). Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity. *Kaiser Family Foundation*. Retrieved from KFF website: http://files.kff.org/attachment/issue-brief-beyond-health-care

Key Points

- CMMI created the State Innovation Models Initiative (SIM) to provide financial and technical support to states in improving quality of care while decreasing cost. The SIM grants are planned to improve patient health by linking primary care with social services and community-based programs.
- Providers have adopted screening tools to identify health-related social needs of patients in order to predict target populations contributing to higher hospitalization use.

Achieving Health Equity

FIGmd, Inc. (2018). Achieving Health Equity. Retrieved from https://polaris.figmd.com/index.php/achieving-health-equity/

Key Points

- Merit-based Incentive Payment Systems (MIPS) have included several measures that reportedly
 relate to social determinants of health (SDHs). Out of the four performance categories (quality,
 advancing care information, improvement activities, and cost), there are several subcategories
 under improvement activities pertaining to SDHs.
- Several subcategories under improvement activities include Achieving Health Equity, Beneficiary Engagement, and Care Coordination. Underneath these subcategories are the examples of a few measures:
 - Engagement of New Medicaid Patients and Follow-Up, in which a timely follow-up is defined as within 10 business days
 - o Engagement of patients through implementation of improvements in patient portal
 - Implementation of Use of Specialist Reports Back to Referring Clinician or Group to Close Referral Loop

While achievement of these measures as part of improvement activities may require addressing particular SDH, they are not directly measuring the assessment or the ability to address SDH.

CHARACTERISTICS IN CURRENT PRIMARY CARE OFFICES

The submitter proposed capitation fees of \$60 and \$90 for outpatient services, depending on the complexity of the patients. Additionally, the submitter discusses the average number of office visits.

Direct Primary Care: Practice Distribution and Cost Across the Nation

Eskew, P.M. & Klink, K. (2015). Direct Primary Care: Practice Distribution and Cost Across the Nation. *J Am Board Fam Med, 28*(6), 793-801. DOI: 10.3122/jabfm.2015.06.140337

- A direct primary care (DPC) is defined as a primary care practice that 1) charges a periodic fee for services, 2) does not bill any third parties on a FFS basis, and 3) per-visit charges are less than the monthly equivalent of the periodic fee.
- Iora Health (cited in this proposal) is considered a larger practice with a panel size of 40,000 for a large practice group.
- The article cites a table of average and median monthly costs across different types of practices.
 For the 17 Medicare opt-in practices, the average monthly cost was \$70 and median monthly cost was \$75.

Variation in Physician Office Visit Rates by Patient Characteristics and State, 2012

Ashman, J.J., Hing, E., & Talwalkar, A. (2015). Variation in Physician Office Visit Rates by Patient Characteristics and State, 2012. (NCHS Data Brief No. 212). *National Center for Health Statistics*. Retrieved from CDC's website at: https://www.cdc.gov/nchs/data/databriefs/db212.pdf

Key Points

- In 2012, there were 592 physician office visits in the U.S. per 100 persons who were 65 years of age and older.
- On average in 2012, 301 physician office visits were made in the U.S. across all ages.

OTHER MODELS

Antonucci's Innovative Model for Primary Care Office Payment aims to provide a simpler approach than other models focused on supporting primary care practice (e.g., CPC+ Track 2 or the Advanced Primary Care APM proposal from the AAFP) to encourage small primary care practices to participate in a patient centered approach to primary care.

The Comprehensive Primary Care Initiative: Effects on Spending, Quality, Patients and Physicians

Peikes, D., Dale, S., Ghosh, A., Taylor, E.F., Swankoski, K. & O'Malley, A.S. et al. (2018). The Comprehensive Primary Care Initiative: Effects on Spending, Quality, Patients And Physicians. *Health Affairs*, *37*(6), 1-10. DOI: 10.1377/hlthaff.2017.1678

Key Points

- In the CPC initiative, the initiative's practices were evaluated on care delivery and outcomes for FFS Medicare beneficiaries compared to other, non-CPC practices.
- Practices under CPC received care management fees from CMS, and separately from other payers (e.g. Medicare Advantage, commercial insurers), in addition to traditional reimbursements. The care management fees were paid PMPM.
- CPC practices, compared to other practices, had a reduced rate of ED visits by 2 percent and a
 reduced rate of thirty-day ED revisits among FFS Medicare attributed patients. However,
 Medicare Parts A and B spending was not significantly reduced enough to cover care
 management fees, improve physician or beneficiary experience, or improve practice
 performance.
- The CPC initiative demonstrated that existing (non-CPC) FFS incentivizes volume over value, which contributes to a lesser effect on reducing Medicare spending.

Centers for Medicare & Medicaid Services (CMS)

Centers for Medicare & Medicaid Services (2016). Comprehensive Primary Care Plus (CPC+) Fact Sheet. Retrieved from CMS's website at:

https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-04-11.html

Centers for Medicare & Medicaid Services (2016). Comprehensive Primary Care Plus (CPC+) Practice Frequently Asked Questions. Retrieved from CMS's website at: https://innovation.cms.gov/Files/x/cpcplus-faqs.pdf

- CPC+ builds upon the lessons learned from the CPC initiative.
- CPC+ is an advanced primary care medical home model that rewards value and quality through a payment structure to support delivery of comprehensive primary care. CPC+ is a regionally-based, multi-payer care delivery and payment model that includes two separate tracks providing three types of payments:
 - 1. Care management fee—Care management fees vary by beneficiary risk tiers using HCCs to quantify clinical complexity and related risk. In track 1 there are 4 risk tiers with payments ranging from \$6 PBPM in the lowest quartile to \$30 PBPM in the highest quartile. In track 2 there are 5 risk tiers with payments ranging from \$9 in the lowest quartile to \$100 for the most complex top 10 percent of beneficiaries (these amounts may be in addition to FFS payments).
 - Comprehensive primary care payment—Track 1 practices continue to receive FFS
 payments. Track 2 practices will receive a percentage of their expected Medicare
 reimbursement for Evaluation & Management (E&M) claims payment upfront in the
 form of a Comprehensive Primary Care Payment (CPCP) and reduced Medicare
 reimbursement amounts for E&M claims (either 40/60 or 65/35).
 - 3. Performance based incentive payment— CPC+ will reward practices based on their performance on patient experience, clinical quality, and utilization measures through performance-based incentive payments. The CPC+ incentive payments will be \$2.50 PBPM for Track 1 and \$4 PBPM for Track 2. CMS will recoup all or a portion of payments made to the practices if they do not meet thresholds for quality and utilization performance.
- Eligible practices in 14 regions around the country may apply for participation in one of two tracks. CPC+ will accommodate up to 2,500 practices in each track for a total of 5,000 practices across all regions and encompass approximately 20,000 clinicians and 25 million patients.
- Practices in both tracks will be required to use CEHRT, and will be expected to report electronic clinical quality measures at the practice-level.
- To assess quality performance and eligibility for the CPC+ performance-based incentive payment, CMS will require Track 1 and 2 practices to annually report electronic clinical quality measures (eCQMs) and patient experience of care measures.

Appendix: Environmental Scan for PTAC Proposals:

An Innovative Model for Primary Care Office Payment submitted by Jean Antonucci, MD

	Research Questions Guiding Search	Sources (Last 5 years unless otherwise stated)	Keywords and Search Terms (Used individually or in combination)
1.	Who or what is the submitting organization?	Google, Wikipedia, organization websites and proposal links and citations	 Jean Antonucci, MD John Wasson, MD Independent rural physician Ideal Medical Practices
2.	What is the clinical care "problem" the proposed model is trying to solve or address?	Proposal, key references cited in the proposal, Google/Scholar, PubMed	 Inappropriate risk for physicians (small practices) Patient attribution Polypharmacy Care coordination Benefits of primary care in reducing admissions and ED visits Patient panel size
3.	What is the payment "problem" the proposed model is trying to solve or address?	Proposal, key references cited in the proposal, Google/Scholar, PubMed	 Capitation Risk stratification (HYH) Capitation for primary care Adequacy of fee-for-service payment for primary care Overhead cost
4.	What is current practice/ standard of care/evidence- based guidelines? Adherence to guidelines?	National Guideline Clearinghouse, PubMed, Cochrane, AHRQ, USPSTF, relevant professional organizations/ associations/ societies, NQF	Medicare CCM codes (99490) Transition codes in Medicare
5.	What are the current payment methodology and relevant regulations/rules, legislative environment, controversies?	MedPAC, Federal Register, Google/Scholar, PubMed, CMS	 Issues with MIPS Adequacy of fee-for-service payment for primary care
6.	Is there evidence that current practices and payments are problematic?	Google/Scholar, PubMed	 HCC code gaming Hospitalization rates Medicare spending Primary care spending
7.	What is the basis/evidence that problem is relevant to Medicare: i.e., size of population within Medicare and/or costs	Google/Scholar, PubMed	Reduce Medicare spending

8.	Are there evaluations of the model or similar models of care and/or payment? Pilot studies?	Google, PubMed, CMS.gov, Medicare Limited Data Sets	 CPC, CPC+ (Track 2) AAFP proposal submitted to PTAC
9.	Have there been alternative models/ solutions to the problem(s) and any evaluations of these?	Google, PubMed, CMS.gov, Lewin Group, Medicare Limited Data Sets	 Ideal Medical Practices 501c3 IORA Health US Health care in PA Medical Home model
10.	Is there support for the validity of quality metrics or outcomes used in the model?	Google/Scholar, NQF, NCQA, CMS.gov, MedPAC, PubMed	• PROM
11.	Are there tools (proprietary or non-proprietary) involved in the model? Evidence for use, costs, effectiveness of such tools?	Google/Scholar	HowsYourHealth.org (HYH)What Matters Index (WMI)
12.	Miscellaneous – Any evidence behind statements and claims in proposal?	References cited in proposal, Google/Scholar	PCP shortage, small independent practices, state of primary care, MIPS, health equity, social determinants of health

- Keywords related to payment model/methodology:
 - o Capitation
- Keywords related to CMS/CMMI:
 - o PROMs, MIPS
- Specific names of tools, models, organizations, awards, mentioned in proposal text:
 - o Iora Health, CPC, CPC+, AAFP, What Matters Index (WMI), HowsYourHealth.org (HYH)