Supplemental materials for:

Miller WL, Rubinstein EB, Howard J, Crabtree BF. Shifting implementation science theory to empower primary care practices. *Ann Fam Med*. 2019;17(3):250-256.

SUPPLEMENTAL APPENDIX 1: Pioneer Practice Characteristics

	P1	P2	P3
Location	urban	urban	small city
Ownership	private	private	private
# add'l practice sites	5 (total)	9 (in state), 25 (national)	0
Clinical workforce roles	-MD -NP -RN -MA	-MD/DO -RN -LCSW -health coach (trained onsite)	-MD -PA -MA -nutritionist -pre-medical fellow/health coach (formally trained offsite)
Weekly office visits	184	112	92
Annual office visits (2016)	9,557	5,791	4,771
Electronic health records (EHR) system	developed in-house	developed in-house	free, web-based
Distinct features	-virtual care (phone, email, Skype) -visits scheduled in 30-min increments -freedom to see any clinician at any clinical site -clinician-led care coordination -medical record storage service	-health coach-led care coordination and panel management -team-based care with "transitions navigator" to coordinate care offsite -visits scheduled in 30-min increments -onsite behavioral health specialist -free transportation to/from P2 and other medical appointments	-virtual care (phone, email) -visits scheduled in 20-min increments -health coach and nutritionist, plus onsite acupuncturist/herbalist (independent contractor) -members-only web resources
Medical neighborhood connections	limited	limited	limited
Community offerings (open to non-members)	none	-monthly classes to support physical, social, and emotional health (e.g., painting, walking, advance care planning) -seasonal social activities (e.g., Valentine's Day Party, July Sock Hop)	-monthly classes on healthy living with community experts -weekly qigong classes -biweekly walking/running classes

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SUPPLEMENTAL APPENDIX 2. Pioneer Practice Business Models (based on the framework proposed by Morris et al. 2005)

	P1 (direct care – large scale)	**P2 (contract)**	**P3 (direct care – small scale)**
Factors related to *offering/service*: How do we create value?	-provide "concierge care for the masses," incl. underserved patients -de-emphasize clinic by offering virtual care -personalize relationship with practice organization	-specialized services and clinical space for geriatric patients and their support system (wider hallways with handrails, etc.) -personal relationship with health coach and ancillary staff	-holistic approach to disease prevention through lifestyle modification -personal relationship with physician
***Market* factors: Whom do we create value for? (target patient population)**	-uninsured, underinsured, insured individuals	-Medicare Advantage patients	-uninsured, underinsured, insured individuals -individuals interested in alternative approaches to health
***Internal capability* factors: What is our source of competence?**	-general primary care, with emphasis on behavioral health	-clinical expertise in geriatric medicine and clinic space designed for seniors	-holistic (lifestyle) medicine
***Economic* factors: How do we make money?**	-start-up venture capital -individual memberships -employer contracts (all employees become members) -contract with carrier for managed care plan for underserved	-venture capital -insurer sponsorship/contract	-individual memberships -employer contracts (on-location wellness services)
***Growth/exit* factors: What are our time, scope, and size ambitions?**	-growth by attracting more employer contracts	-growth by attracting more sponsors and building more clinics	-no current plans for growth

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SUPPLEMENTAL APPENDIX 3: Practice Models

P1: Larger-Scale Direct Care Hybrid Model

- *Focus on relationships, access, and care coordination with care organized by and around the clinicians and their professional expertise and craft.*
- *Seeking to serve all members of the community.*
- *Larger-size practices with multiple sites.*
- *Experimental hybrid of conventional direct care model.*

Business model

Revenue sources

- Venture capital investments for start-up, expansions, and bridge funding
  - *Challenged when some initial investors withdrew*
- Monthly membership fee for individuals/families, tiered by age
  - *This was initial and primary on-going source of revenue*
  - *Direct care core*
- Monthly fee for 24/7 virtual urgent care
  - *A means to attract additional patients into practice*
  - *Also a way to serve more of the community, part of their vision*
- Subscription plan for employers where employer pays monthly membership fee for all employees
  - *Additional way to serve more of community*
  - *Facilitate expansion to help meet investment payments*
- Contract with carrier for managed care plan for underserved where carrier pays agreed upon monthly membership fee (different than others above) for those enrolled.
  - *Challenged by carrier reduction in fee partly related to high turnover of carrier members*
  - *Another way to serve more of the community*

P2: Contract Model

- *Team-based model, where health coaches are responsible for the majority of patient care in consultation with physicians with goal of maintaining regular contact with high-risk patients.*
- *Small practice size with multiple local sites (as patient panel grows) being scaled nationally. Priority placed on developing responsive team culture.*
- *Clinical teams and care tailored to site-specific contract and population served.*
- *Clinicians freed to emphasize professional expertise and craft.*

Business model

Revenue sources

- Venture capital investments for start-up, expansions, and bridge funding
  - *Allowed them to develop and test model*
  - *Early returns are attractive to on-going investment*
- Contracts with local carriers for Medicare Advantage population ($ per member per month), which also includes percentage of share in any savings

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- *The shared risk percentage rises as panel size expands*
- *Guaranteed revenue base allows clinical innovation to achieve value*

P3: Small-Scale Direct Care Model

- *Clinician-based model, where physicians/PAs are responsible for the majority of patient care, aided by front office staff and one medical assistant.*
- *Focus on integrative health, including emphasis on lifestyle modification and wellness promotion.*
- *Small practice size, which is linked to capacity and demand.*

Business model

Revenue sources

- Monthly membership fee for individuals/families for menu of guaranteed services
  - *Primary on-going source of revenue & direct care core*
  - *Maintaining continuity is challenge in this economically-challenged area*
- Contracts with employers for on-site wellness clinics at set fee at controlled times
  - *Provides extra income while satisfying professional interests*
- Flat co-pay for visits and extra pay for laboratory services, etc. (at reduced rates)
- Flat co-pay for nutritionist and health coach visits
  - *Both of above help keep monthly membership fees reasonable for local community*

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