



SOCIETY OF  
ACTUARIES®

2019 **ANNUAL  
MEETING**  
& EXHIBIT

October 27-30  
Toronto, Canada

## Session 116: Health Research Update

[SOA Antitrust Compliance Guidelines](#)

[SOA Presentation Disclaimer](#)

# Direct Primary Care (DPC)

Evaluating a New Model of Delivery and Financing

**Fritz Busch, FSA, MAAA**  
Consulting Actuary

**Dustin Grzeskowiak, FSA, MAAA**  
Consulting Actuary

OCTOBER 2019

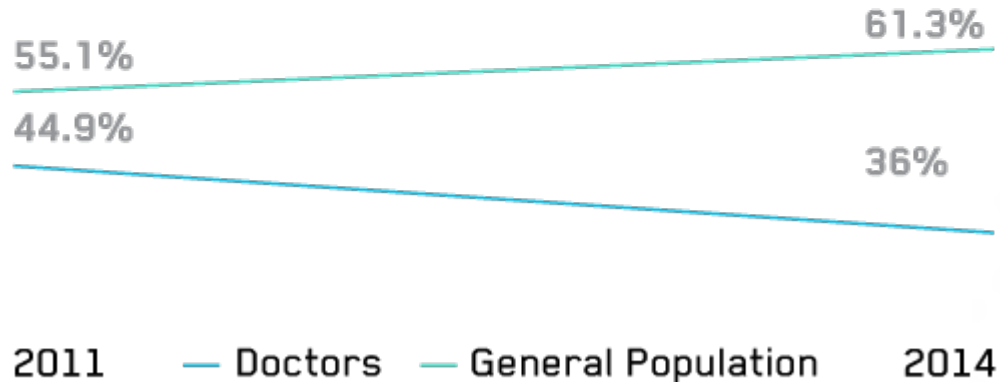
# Overview of DPC model

# Primary care landscape in US

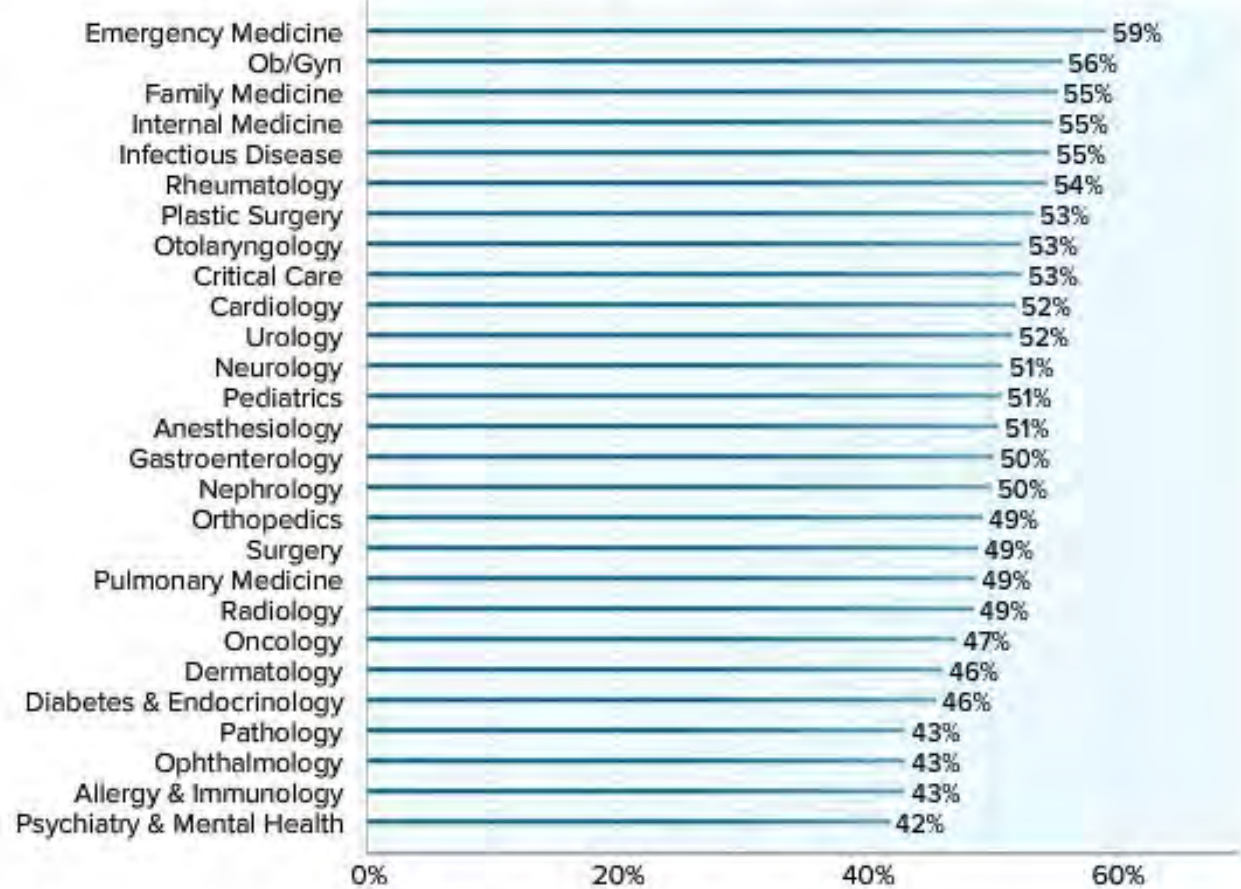
## BURNOUT



## SATISFACTION WITH WORK-LIFE BALANCE



## Which Physicians Are Most Burned Out?



# What is Direct Primary Care (DPC)?

- Most common definition –
  - Direct Primary Care practices are those which:
    1. Charge patients a recurring retainer fee to cover most or all primary care related services,
    2. Do not charge patients per-visit out-of-pocket amounts greater than the monthly equivalent of the retainer fee, and
    3. Do not bill third-parties on a fee-for-service basis for services provided.
  - Reported monthly membership fees for adults: \$25 to \$125
  - Covered services:
    - Preventive care
    - Vaccinations
    - Basic Illness treatment
    - Care coordination
    - Basic labs
    - Access to discounted prescriptions

# What can DPC offer patients?

- Increased access to their doctor
  - Same day appointments during clinic hours
  - 24/7 access to clinician via email, text, or other platforms (i.e. Skype, specialized DPC software)
- Less fragmented care via long-term direct relationship with clinician
- Discounted fees for labs, imaging, prescription medications and some specialist services
- Predictable monthly DPC membership fee covers 80-90% of care needed
- Navigation of the health care system
  - *Patients characterized their experience with DPC as “He’s not like a regular doctor” and “It’s like a family.”*
  - *“About half of my patients need more time... there’s some symptoms that may not all fit together and we need a little bit of time to figure out what’s going on. Now I have the time to sit and think about it, read, research it, come back and you don’t have to pay more copays so you’re not feeling the pressure to say you really can’t come back.”*
  - *“One of the things we do as DPC doctors is to help patient navigate the health care system, which can be very treacherous... If Mrs. Smith needs a CAT scan, I can send her to the local hospital for a \$2,000 CAT scan or to a really good standalone clinic for \$250. It’s the same test and it’s better for the patient; she’s saved money.”*

# What can DPC offer clinicians?

- Elimination of insurance related paperwork
- Lower practice overhead costs
- Reduced administrative burden on clinician
- Potential to reduce patient panel size by two-thirds
- Re-establishment of the “doctor-patient relationship” via longer visits and continuous care

One DPC doctor characterizes the math of the DPC model this way:

## The Math that makes it work:

### Traditional:

\$1.00 charged  
x 0.65 collected (avg in US)  
\$0.65  
-60% overhead (avg in US)  
\$0.26

### Our Model:

\$1.00  
x 0.99  
\$0.99  
-18%  
\$0.81

Hat tip: Dr Brian Forrest

# What are the proponents of DPC saying?

- DPC is an alternative primary care arrangement that achieves the quadruple aim:
  - Lower costs
  - Improved quality of care
  - Improved population health
  - Improved physician satisfaction

*“At a time when our country is struggling to make healthcare less costly, our [DPC] results confirm that primary care, when made more personalized and accessible to patients, can lower specialty and hospital costs, and keep people healthier and more productive. We have an opportunity to rebuild our healthcare system to ensure we're delivering the right kind of care in the right place at the right time.”*



# What are the critics of DPC saying?

- DPC is not a scalable primary care arrangement
- DPC exacerbates the existing shortage of primary care clinicians by cutting panel sizes
- DPC exacerbates existing inequities in access to care

*“Changes to the current fee-for-service reimbursement model are needed, but DPC is not the promised panacea of payment reform.”*

*DPC is not a scalable model...to achieve systemic cost savings, promote equity in access, and yield improvement in population health outcomes. Lessons learned from DPC—mainly the potential utility of global capitated payments—should be applied when developing new payment reform models and envisioning a new future for primary care delivery. However, DPC is not the answer to the problem.”*

# Milliman study

# SOA Research Expanding Boundaries (REX)

- Focused on increasing the amount of impactful research produced by the SOA
- Goal of REX Pool:
  - “To encourage the development of more multi-year, multi-phase projects that advance the profession through expansion of practice across traditional practice-area boundaries, addressing issues related to public policy, and/or addressing actuarial issues of broad societal interest.”
- 2018 Actuarial Practice Expansion and Socially Relevant Research
- SOA’s Strategic Research Program on Health Care Cost Trends
  - Health Care System Reform including innovative health care and insurance products; health care cost reduction approaches; and refined health care markets

# Outline of DPC study

- ‘Direct Primary Care: Evaluating a New Model of Delivery and Financing’
- Proponents and practitioners of DPC claim that DPC achieves quadruple aim:
  1. Better health outcomes
  2. Lower health costs
  3. Improved patient experience and access
  4. Enhanced clinician experience
- Primary objective of our study is to provide a comprehensive and objective actuarial evaluation as to the validity of these claims
- Secondary objective to provide healthcare stakeholders (patients, payers, policymakers, and actuaries) with understanding of the DPC landscape

# Methodology 1: Literature review

- Objectives:
  - Define the DPC model of delivery and financing
  - Characterize distinctive features of DPC including variations between DPC and traditional primary care and among DPC practices
  - Summarizing any existing literature regarding the efficacy or expected efficacy of the DPC model
- Status:
  - Complete
- Outcomes:
  - Identified 36 relevant articles on DPC and an additional 7 providing different definitions of DPC
  - Determined most common “definition” of DPC (referenced by Fritz on earlier slide)
  - Developed 40 page report summarizing and categorizing existing DPC literature – DPC Overview, Cost Outcomes, Regulatory Considerations, Provider Experience, and Patient Access
  - Identified gaps in existing literature

# Methodology 2: DPC physician interviews and survey

- Objectives:
  - Document first hand information from the physicians operating DPC practices
  - Gain insights into the motivations and process for starting a DPC practice and discern common operational features and challenges
  - Compile survey information on DPC covered services, membership fees and structure, and panel size.
- Status:
  - Physician interviews complete (10 in total)
  - Survey (Expected distribution to ~500 DPC practices in September)
- Outcomes:
  - What's the essence of DPC? “T-I-M-E, time”, “Purity”, “One-doctor-one-patient”, “longitudinal”
  - Motivation for DPC? “I thought the structure of the traditional primary care model was legitimately insane. My plan before I found DPC was to pay off my debt and then find some other career outside of medicine, like waitressing for example.”

# Methodology 3: Data analysis

- Objectives:
  - Quantify impact of DPC for employer population after accounting for selection differences
  - Measure impact to PMPM claim costs, inpatient admissions, and emergency room visits
- Status:
  - Final stages
- Outcomes:
  - Public employer with about 2,000 members enrolled in health plan implemented DPC option
  - About half of the population selected the DPC option in first two years
  - DPC members were younger and healthier than members not enrolling in DPC
    - Similar selection pattern as you might expect when offering a narrow network product to existing PPO population
    - Employer DPC selection may be opposite of individual DPC selection
  - Selection adjusted results show some claim cost savings from DPC and impact on high cost utilization



**Fritz Busch**

fritz.busch@milliman.com

**Dustin Grzeskowiak**

dustin.grzeskowiak@milliman.com



# Primary Care Delivery Models

**Casey Hammer, FSA, MAAA**  
Consulting Actuary

OCTOBER 2019



# Purpose of our Research

- Describe the business and financial implications of the changing landscape as it impacts Primary Care Physicians (PCPs)
- Provide a framework to project and measure the financial impact of these programs

# Current Primary Care Provider Environment

- Role and Responsibilities of the PCP
  - Generalists who understand and diagnose an array of conditions
  - Helps the patient navigate through the healthcare system
  - Ongoing relationship with the patients
- Business Environment
  - Earn less than specialists
  - Outnumbered by specialists
  - Potential PCP shortage as fewer doctors go into primary care
  - Shifting from independent practices to larger medical groups

# Innovative Primary Care Programs

- Concierge
- Bridges to Excellence
- Federally Qualified Health Centers (FQHCs)
- Large Provider Groups
- Patient Centered Medical Homes (PCMH)

# Elements of Primary Care Programs

- Reimbursement
  - Base compensation
  - Incentives
- PCP Selection
- PCP Administrative Cost
  - Role of PCP
  - Technology
  - Business model
  - Direct Funding of Expenses
  - Resources for insured patients
- Performance Metrics
- Initiatives and Tasks

# Initiatives and Tasks

- Focus on initiatives that can provide “Better Care. Smarter Spending. Healthier People.<sup>1</sup>”
- The success of any program depends on the number and depth of the initiatives adopted
- Initiatives: Program with a broad goal
- Tasks: Specific actions taken by physicians that make up the initiative

<sup>1</sup>. Centers for Medicare and Medicaid Services

# Initiatives and Tasks

- Initiative: Reduce emergency room utilization
  - Tasks:
    - Educate patients on what constitutes an emergency and promote other sites of care
    - 24 hour nurseline
    - Tools to distribute where urgent care centers are located
    - Target frequent fliers to connect them with appropriate care
    - Direct patients to in-network emergency rooms
- Initiative: Reduce acute hospitalization
  - Tasks:
    - Care management to control chronic conditions
    - Do hospital rounds to manage the length of stay
    - Assist with discharge planning
    - Communication between patient, family hospitalist and specialists

# Initiatives and Tasks

- Initiative: Managing chronic care
  - Tasks:
    - Formal disease management programs
    - Advise patients on hospital choice
- Initiative: Efficient utilization of specialty care
  - Tasks:
    - Screen for alternative treatments before providing a specialist referral
    - Work with the specialists to develop and manage the treatment plan
    - Specialist selection
    - Screen for mental health and treat when appropriate
    - Stay involved to make sure specialist appointments are made and kept



# Initiatives & Tasks

- End of Life Care
- Serious Illnesses
- Pharmacy
- PCP Staff
- Outpatient system management

# Framework for Financial Modeling

- Consider current performance and initiatives
- Consider areas where a PCP could have an impact
- Select an initiative and determine the underlying tasks
- Determine what data sources are available to model the initiatives or tasks
- Sensitivity test the assumptions
- When modelling several initiatives, savings may overlap
- Compare savings estimates to benchmarks

# Initiative: Reduce Ambulatory Care Sensitive Admissions

- Care coordination across multiple providers
- Nurse care managers for chronic conditions
- Same day scheduling or after hours access
- Provide transportation
- Patient educators for chronic conditions
- Medical assistant outreach for chronic condition follow-up

# Ambulatory Care Sensitive Admissions

State of California

Prevention Quality Indicator Description	Admits/1000	Allowed PMPM
01 - Diabetes Short-Term Complications	0.10	\$0.18
02 - Perforated Appendix	0.16	\$0.38
03 - Diabetes Long-Term Complications	0.15	\$0.49
05 - Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	0.21	\$0.38
07 - Hypertension	0.08	\$0.14
08 - Heart Failure	0.49	\$1.24
10 - Dehydration	0.24	\$0.37
11 - Community-Acquired Pneumonia	0.25	\$0.48
12 - Urinary Tract Infection	0.22	\$0.25
14 - Uncontrolled Diabetes	0.06	\$0.12
15 - Asthma in Younger Adults	0.02	\$0.03
16 - Lower-Extremity Amputation Among Patients with Diabetes	0.03	\$0.13
<b>90 - Prevention Quality Overall Composite</b>	<b>1.82</b>	<b>\$3.71</b>

**Data Source:** 2017 Milliman Contributor Health Cost Guidelines Source Dataset

**Measures:** Agency for Healthcare Research and Quality's Prevention Quality Indicators

# Ambulatory Care Sensitive Admissions – PCP Impacted

State of California

Prevention Quality Indicator Description	Admits/1000	Allowed PMPM
01 - Diabetes Short-Term Complications	0.10	\$0.18
02 - Perforated Appendix	0.16	\$0.38
03 - Diabetes Long-Term Complications	0.13	\$0.38
05 - Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	0.21	\$0.37
07 - Hypertension	0.07	\$0.11
08 - Heart Failure	0.48	\$1.09
10 - Dehydration	0.10	\$0.13
11 - Community-Acquired Pneumonia	0.25	\$0.48
12 - Urinary Tract Infection	0.00	\$0.00
14 - Uncontrolled Diabetes	0.06	\$0.11
15 - Asthma in Younger Adults	0.02	\$0.03
16 - Lower-Extremity Amputation Among Patients with Diabetes	0.03	\$0.13
<b>90 - Prevention Quality Overall Composite</b>	<b>1.41</b>	<b>\$2.91</b>

**Data Source:** 2017 Milliman Contributor Health Cost Guidelines Source Dataset

**Measures:** Agency for Healthcare Research and Quality’s Prevention Quality Indicators



**Casey Hammer, FSA, MAAA**  
casey.hammer@milliman.com