



## A NEW VISION FOR CALIFORNIA'S HEALTHCARE SYSTEM: Integrated Care with Aligned Financial Incentives

### Appendix II. California's Delivery System Integration and Payment System (Methodology)

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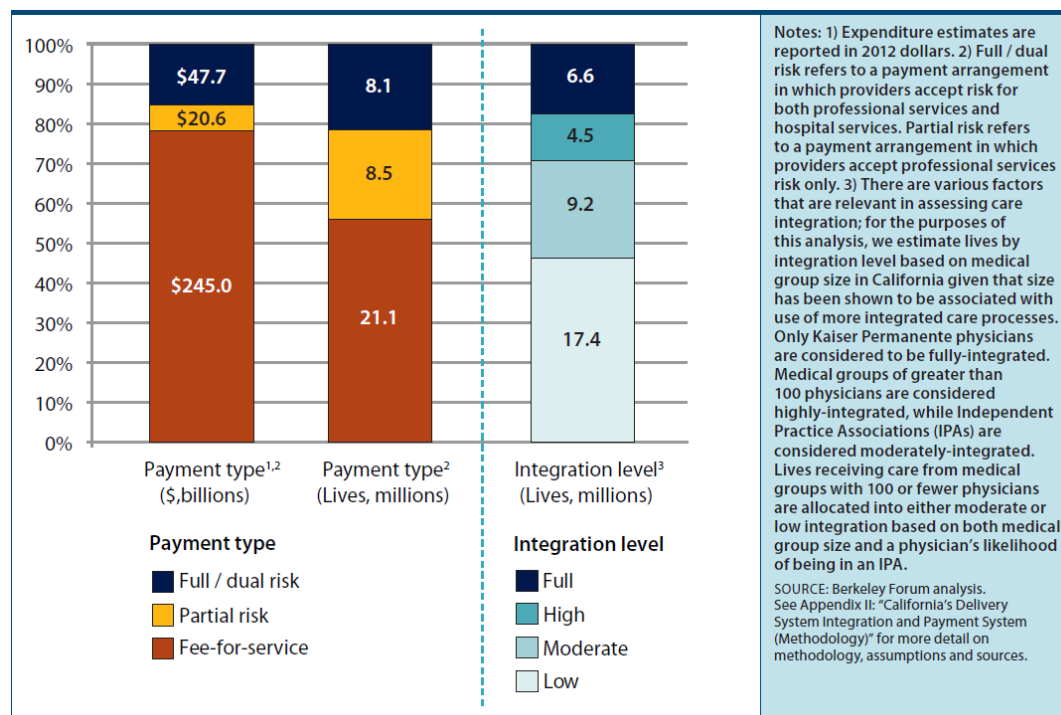
## Appendix II. California's Delivery System Integration and Payment System (Methodology)

This memorandum provides additional detail on the methods used to estimate the prevalence of risk-based and fee-for-service payment and the level of delivery system integration in California.

### Summary

Given the Forum's vision for increasing risk-based payment methods and the use of integrated delivery systems, multiple data sources were aggregated to create a snapshot of the current state of payment type and delivery system integration in California. This memorandum explains the approach and assumptions used to develop Figure 1 below, which was discussed in the main Berkeley Forum Report "A New Vision for California's Healthcare System: Integrated Care with Aligned Financial Incentives."

**Figure 1: Breakdown of payment mechanisms and delivery system integration in California by lives and dollars, 2012**



### Objectives

- 1) To estimate the number of Californians receiving care from, and the healthcare spending paid under, full/dual risk, partial risk or fee-for-service payment in 2012.
- 2) To estimate the number of Californians who received care from fully-integrated, highly-integrated, moderately-integrated or low integrated delivery systems in 2012.



## Definitions

- 1) Our definition of California healthcare spending is analogous to the Centers for Medicare & Medicaid Services (CMS) definition for national healthcare expenditures, and includes expenditures for personal healthcare services, government healthcare administration, net costs of private health insurance (profit, administration, etc.), government public health activities and investments. (For a more detailed explanation, see Appendix III “California Cost Curve, Healthcare Expenditures and Premiums Projections (Methodology).”)
- 2) Delivery system integration levels are defined as follows:
  - a. Full integration – Care provided by a single, integrated entity whereby one organization is responsible for all services, including delivery of care, payment and risk management.
  - b. High integration – Care provided by physicians in medical groups with more than 100 physicians.
  - c. Moderate integration – Care provided primarily by physicians in mid to large medical groups or Independent Practice Associations (IPAs).
  - d. Low integration – Care provided primarily by physicians not affiliated with an IPA, or who are in small medical groups.
- 3) Payment type
  - a. Full risk – Contracts in which one entity has assumed both physician and hospital risk.
  - b. Dual risk – Contracts that cover professional services and hospital risk, but under separate agreements.
  - c. Partial risk – Contracts that cover professional services only.

## Estimation of Spending and Enrollment by Payment Type

### 1) Full/Dual Risk

- a. For the purpose of estimating enrollment under both full risk and full integration, we have included only Kaiser Permanente. Cattaneo and Stroud Inc. reported 6.6 million Californians enrolled under Kaiser’s commercial HMO, Medicare Advantage, Medi-Cal and Healthy Families plans.<sup>1</sup> We have estimated that another 1.5 million Californians receive care from providers with full or dual risk arrangements, mostly in Southern California where dual risk arrangements are more common in HMO plans. These enrollment numbers were calculated using 50% of the non-

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<sup>1</sup> Cattaneo and Stroud Inc. (2012).



Kaiser Medicare Advantage enrollment (0.5 million) plus 25% of the commercial non-Kaiser HMO enrollment (1.0 million).<sup>2</sup> Total lives in full/dual capitation are thus approximately 8 million.

- b. Spending under full/dual risk is estimated at \$48 billion. This is based on an estimate of Kaiser's 2012 California revenue, derived from Kaiser's 2010 reported revenue of \$34.3 billion<sup>3</sup> adjusted upwards by California's healthcare spending growth rates for 2011 and 2012 (See "Appendix III "California Cost Curve, Healthcare Expenditures and Premiums Projections (Methodology)" for a discussion of the growth rates), plus the costs for the 50% of the non-Kaiser Medicare Advantage enrollees, plus the estimated costs of the 1 million Californians covered under HMO contracts with full/dual risk. Based on expert opinion, these costs were estimated to be 30% lower than the average 2012 healthcare spending per capita due to the lower risk profile of the commercially insured<sup>4</sup>, the fact that they are cared for by highly integrated providers and the high proportion of these members residing in Southern California, which has lower healthcare costs than Northern California.<sup>5</sup>

## 2) Partial Risk

- a. The number of lives estimated under partial risk (9 million) was calculated from Cattaneo and Stroud Inc. HMO Enrollment reports<sup>6</sup> by tabulating all HMO lives not covered under full/dual risk. This figure entails half of the non-Kaiser Medicare Advantage enrollment (0.5 million), 100% of the Medi-Cal managed care enrollment (5.8 million) and 75% of the non-Kaiser HMO commercial enrollment (3 million). The remaining half of Medicare Advantage enrollment and remaining 25% of non-Kaiser HMO enrollment was included above, under full/dual risk.
- b. The spending estimates under partial risk (\$21 billion) assumed that 50% of non-Kaiser Medicare Advantage (\$5 billion) and 50% of Medi-Cal payments (\$5 billion) were paid under partial risk contracts. Under partial risk, generally only professional services are capitated. Commercial partial risk includes estimated physician payments in non-Kaiser HMOs. The other \$10 billion figure was calculated starting with the \$86 billion in total payments to physicians in California multiplied by the percentage of physicians who were affiliated with a commercial HMO (except Kaiser) and estimating that 70% of their services were paid through partial risk arrangements. All numbers have been trended to 2012.

## 3) Fee-for-Service

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<sup>2</sup> Ibid.

<sup>3</sup> California HealthCare Foundation (2011).

<sup>4</sup> Based on a Berkeley Forum analysis of CHS (2009) data.

<sup>5</sup> Based on a Berkeley Forum analysis of data provided by Milliman Inc, using the Thompson Reuters MarketScan Commercial Claims and Encounters Database 2008-2010.

<sup>6</sup> Cattaneo and Stroud Inc. (2012).



- a. Fee-for-service enrollment of 21 million lives was estimated using Medicare fee-for-service enrollment (3.3 million),<sup>7</sup> Medi-Cal fee-for-service enrollment (2.7 million),<sup>8</sup> commercial non-HMO enrollment (7.3 million)<sup>9</sup> and 7.3 million uninsured.<sup>10</sup>
- b. The remainder of the \$313 billion in 2012 healthcare spending not attributable to full or partial risk, or \$245 billion, was assumed to be fee-for-service.

## **Estimation of Enrollment by Level of Delivery System Integration**

### **1) Fully-integrated system**

- a. Fully-integrated system projections for 2012 were derived from August 2012 Cattaneo and Stroud Inc. reports produced from March 2012 DMHC data.<sup>11</sup> This figure includes Kaiser's commercial HMO, Medicare, Medi-Cal, and Healthy Families enrollment, for a total of 6.6 million lives.
- b. All 6.6 million lives in fully-integrated care systems are shown under full risk.

### **2) Highly-integrated system**

- a. Highly integrated system enrollment was derived from IMS data<sup>12</sup> showing that approximately 13% of non-Kaiser physicians in California belong to medical groups with 100 or more physicians. We then estimated that these physicians care for a disproportionate share (14.4% instead of 13%) of California's insured population of 30.4 million, due to efficiencies in highly integrated systems. We thus arrived at the estimate of 4.4 million Californians receiving care through highly integrated systems.
- b. In order to break down the 4.4 million lives in highly-integrated care systems by payment type, we estimated 1.5 million were covered under dual risk, and of the remaining 3 million, 80% were covered under partial risk (2.1 million) and 20% were covered under fee-for-service (0.9 million). This number was derived from several case studies of large medical groups<sup>13</sup> that showed a similar proportion of enrolled lives in risk-based payment and fee-for-service, as well as from extensive discussions with experts on the current state of risk-based contracting in California.

### **3) Moderately-integrated system**

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<sup>7</sup> Kaiser Family Foundation (2012).

<sup>8</sup> California Department of Health Care Services (2012).

<sup>9</sup> California HealthCare Foundation (2011).

<sup>10</sup> Kaiser Family Foundation (2010-2011).

<sup>11</sup> Cattaneo & Stroud Inc. (2012).

<sup>12</sup> IMS Health Incorporated (2010).

<sup>13</sup> See Gbemudu et al. (2012) on HealthCare Partners, Carluzzo et al. (2012) on Monarch HealthCare and Palo Alto Medical Foundation (2013).



- a. Moderately-integrated system enrollment was estimated based on IMS data<sup>14</sup> grouping physician practice sizes and then adjusting for the likelihood of physicians being in a moderately-integrated system (e.g. an IPA or mid-sized medical group). We estimated that 25% of sole practitioners, 35% of medical groups with 2-4 physicians, 60% of medical groups with 5-24 physicians, 65% of medical groups with 25-49 physicians and 70% of medical groups with 50-99 physicians would be considered moderately integrated. The result was an estimate of 9.2 million lives in moderately integrated systems.
- b. In order to break down the lives in moderately integrated care systems by payment type, we estimated that the proportion of covered lives under partial risk in these mid-sized medical groups or in IPAs was 70%, with the remaining 30% covered under fee-for-service.

#### 4) Low integrated System

- a. Low integrated system enrollment was estimated based on IMS data<sup>15</sup> grouping physician practice sizes and applying a probability that they would not be affiliated with an IPA or in small medical groups. We estimated that 75% of sole practitioners, 65% of medical groups with 2-4 physicians, 40% of medical groups with 25-49 physicians and 35% of medical groups with 50-99 physicians would be considered low integrated. This resulted in 10.1 million insured and 7.3 million uninsured Californians who are cared for in low integrated systems, for a total of 17.4 million lives.
- b. All lives in low-integration systems were considered cared for under fee-for-service.

## Limitations

In addition to the assumptions made in each of the scenarios described above, there are several major limitations in our analysis.

- 1) Only Kaiser Permanente is included under the estimates of enrollment and spending in fully-integrated delivery systems. We recognize, however, that there are other delivery systems in California that also may meet the criteria for fully integrated systems, including the Veteran's Administration and some other provider groups with full risk contracts. We did not have adequate data to include these systems, thus the total number of Californians receiving care in fully-integrated systems may be somewhat undercounted.
- 2) Hospitalization expenses for Californians covered under partial-risk HMOs are included in our estimates for fee-for-service expenses. Partial-risk physicians have various risk-sharing agreements whereby they may be compensated based on their patients' hospital utilization levels. Therefore, some expenses are included in the fee-for-service category have elements of risk-based payment.

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<sup>14</sup> IMS Health Incorporated (2010).

<sup>15</sup> Ibid.



- 3) Many assumptions were used to estimate the healthcare spending paid under partial risk arrangements because contracting and spending under partial risk (capitation) agreements are considered proprietary and public data is unavailable. We performed sensitivity testing of the base-case assumption above, in which 50% of Medicare Advantage and Medi-Cal payments and 70% of physician payments for the commercially insured were paid under partial risk arrangements. Increasing assumed partial risk payments under Medicare Advantage and Medi-Cal to 75% and increasing commercial physician payments to 90% grew the amount of partial risk payment by approximately \$7 billion. This scenario only results in the overall fee-for-service payment share being reduced to 76%, vs. the 78% of our base-case assumptions. Decreasing Medicare Advantage and Medi-Cal payments to 25% and decreasing commercial physician payments to 45% decreased the amount of partial risk payment by approximately \$7 billion. This scenario only results in overall fee-for-service payment share being increased to 80% vs. the 78% of our base-case assumptions.
- 4) Physician group size was used as a proxy to indicate the integration level of the delivery system. This is an imperfect indicator, as integration is a function of the use of information technology, clinical integration, hospital/physician relationships, among other factors. It was selected as a proxy indicator because of evidence that practice size is associated with greater levels of evidence based care management practices reflecting clinical integration.<sup>16</sup>

## Acknowledgements

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<sup>16</sup> Shortell (2011).





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