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Group Dynamics: The Relationship Between Provider Group Structure and Patients' Ratings on Services Central to the Patient- Centered Medical Home (PCMH) Model

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Presenter Disclosures

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

I am employed as a Senior Biostatistician at L.A. Care Health Plan – the Local Initiative Health Authority of Los Angeles County, California.

L.A. Care is a public entity competing with commercial insurers in the Medicaid and S-CHIP markets in L.A. County.

Notes:

CAHPS® is a registered trade name of the Agency for Healthcare Research and Quality (AHRQ).
HEDIS® is a registered trade name of the National Committee for Quality Assurance (NCQA).

Outline



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I. Learning Objectives

1. Discuss provider group organizations and their purposes, from patients' and providers' perspectives.
2. Describe different provider group structures, and which forms are prevalent in a complex network.
3. Assess which provider group structures tend to deliver the best/worst performance on patients' CAHPS ratings of the quality of services from doctors and clinic staffs.
4. Analyze how demographic groups are distributed among provider group structures.
5. Describe ways in which patients choose (or are assigned) to structures.
6. Assess which demographic groups fare best or worst under different provider group structures, in their satisfaction with services as patients.
7. Describe which structural features of high-performing provider groups can be emulated by poorer-performing provider groups.
8. Discuss how to integrate the economic incentive logic in the ACO model with the qualitative drivers implicit to the PCMH model.
9. Explain how findings about health care delivery systems can be made actionable for improving quality of services.



II. Background – Health Plan and PPG PAS 2011 Survey



L.A. Care Health Plan -- large, diverse membership:

- Mostly Medicaid, urban, 2/3rd pediatric, often Spanish-speaking.
- Roughly 21% of Medicaid managed care population in California.
- Roughly 2.1% of Medicaid managed care population in the U.S.
- Los Angeles County, California: Roughly 1-in-14 residents is an L.A. Care member.
- Mostly Medicaid, some S-CHIP, SNP, and special programs.
- Serves 10 distinct language concentrations ("threshold languages"):
Spanish, English, Armenian, Korean, Cambodian, Chinese, Russian, Vietnamese, Farsi, Tagalog.
- Mostly urban and suburban; 1 semi-rural region in the high desert.

L.A. P4P PAS 2011 survey at L.A. Care:

- Measured patient experience with quality of health care services.
- The Patient Assessment Survey (PAS)* is similar to AHRQ CG CAHPS v2.0 12-month survey. PAS allowed the health plan's P4P program somewhat more focus on authorizations and statistical sensitivity (6-point scales).
- Survey mode: 2 mail waves, telephone follow-up; surveyed in English and Spanish.
- Sampled 39 provider groups: 49,549 sent, 16,288 completed: 32.9% response rate.
- Adult and Child samples in their naturally-occurring proportions.

* © and used by permission of Ted von Glahn of the Pacific Business Group on Health (PBGH).

III. Conceptual Linkage Between PCMH and ACO Models

The Patient-Centered Medical Home (PCMH) model is built on constructs that are qualitative in nature: patient preferences; access options; provider communication; coordination.



These domains can be operationalized and measured as rates, but their underpinnings are qualitative.

In contrast, the Accountable Care Organization (ACO) model is quantitative, built on rational economic logic to align provider incentives with quality care.

Linking PCMH and ACO Models to Provider Group Structure



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Is there a synthesis for the two models -- by which to integrate them in practice?:

- The PCMH model is well-suited to define the measures incentivized in the ACO model.
- Incentives work on-the-margin, potentially overpaying already-compliant provider groups who already perform well with no incentive; and potentially under-paying provider groups that face structural/qualitative impediments beyond mere risk-adjusting for exogenous disease in their patient panels.
- The PMCH model can provide the qualitative content to make the set of ACO incentive measures robust with respect to patient outcomes.
- PCMH+ACO would include root cause analysis into what qualitative factors are impairing each doctor, clinic, or provider group in the P4P program – and then peg their incentives to the specific things lacking in their practices (EMR, Urgent Care, interpreter access, etc.) – as identified by HEDIS, CAHPS, network capacity and other measures.
- As health plans assemble provider networks, administrators seek methods to identify provider groups as high quality partners for serving patients. This presentation examines how different provider group structures (staff model, medical group, IPA, and mixed models) perform in delivering in the domains of quality identified in the PCMH model.

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Notes On Provider Group Structure

There is a body of literature examining the connection between the methods for organizing and contracting health care services.



The linkage between those structures and the quality of care have been explored. The mechanisms by which different structures deliver quality, are somewhat less understood, but often proceed on two assumptions:

1. The degree to which health services are integrated in a health plan or provider group, determines the leverage that the organization has over quality.
2. Much of the benefit of healthcare integration comes from having electronic medical records (EMR).

Staff model systems (where the clinicians are employees of the system) appear to promote standards and practices which use electronic medical records (EMR) – but these are practices which are broader in scope than tools such as EMR.

IV. PCMH Components Partly Measured in Member Experience Surveys

The core questions in common patient experience surveys (CAHPS, CG CAHPS, PAS, PES, etc.) include measures related to PCMH.



- AHRQ has a PCMH-specific version of the CAHPS Clinician and Group survey (CG CAHPS).
- This pilot study uses data from the Patient Assessment Survey (PAS) instrument, which is largely comparable in content to CG CAHPS.
- Among PCMH standards offered by NCQA (6 standards, 21 elements), the following PCMH elements were covered in the PAS 2011 survey, and are primarily in the access to care and continuity of care domain:
 - Timely access (particularly for urgent care).
 - Access (approvals): specialist appointments; care, tests, and treatments.
 - After-hours access.
 - Interpreter access.
 - Coordination of care (PCP is up-to-date on patient's treatment history; follows up on tests).

V. Operationalization and Analytic Approach

In competitive markets, health plan administrators continually face the question as to which provider organizations to partner with.

This will be particularly true under health care reform: Where the basic package is largely pre-defined, the main feature that health plans will compete on, is the provider network.

This paper examines whether provider group structure impacts quality, as a consideration in evaluating provider groups being considered for health plans' provider networks.

The degree of integration within a medical group, is not necessarily captured in formal documentation. Health program administrators may benefit from a simple way of characterizing provider groups as potential partners pursuing quality.

“What’s in a Name?”:

- Medical groups traditionally were staff model organizations. This paper explores whether “medical group” or “IPA” in a provider group’s name, provides a rough way to identify the degree of integration present.



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Analytic Approach (Cont.)

The maintained hypothesis was that performance on general service measures and PCMH measures, would be highest among provider groups with fully-integrated operations and services.

The hypothesis assumes that the following features of fully-integrated staff model organizations contribute to better health care and service and patient ratings:

- Training in a uniform style of practice.
- Electronic medical records for medical history and coordination of care.
- Consolidated facilities, so that patients can get more than one test or service in a single visit.

In this study, that hypothesis was tested using the following 5 levels to represent the degree to which a provider group had elements of a fully-integrated staff model, in descending order of sophistication:

- Staff Model (medical groups – sometimes owned by a health plan – with self-contained services: clinics, labs, pharmacies, and sometimes hospitals);
- Medical Group (clinical staff are largely employees of the medical group);
- Mixed (MG+IPA – often geographical, by acquisition);
- IPA (independent practices, under an association, which provides contracting, billing, and record-keeping services);
- Small clinics with assigned members.

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VI. Testing Relationship of Provider Group Structure to Performance on PCMH Measures



L.A. Care conducted a survey of provider group patients in fall 2011 of 39 provider groups, representing a canvass of the largest provider groups in L.A. Care’s provider network – those which had sufficient patients in the past year to survey with usable precision.

Provider groups were classified based primarily on “medical group” (MG) or “IPA” (independent provider association) in their business names, validated by examining the organizations’ self-descriptions that appear in their Internet homepages.

Below is the breakdown of types in the analysis of the 39 provider groups:

Staff Model*	3 (7.7%)	[Plan-owned medical groups.]
Medical Group	16 (41.0%)	[Doctors are employees of group.]
Mixed (MG+IPA)	4 (10.3%)	[MG partners with IPA to cover geog.]
IPA	13 (33.3%)	[Indep. doctors share support services.]
Clinic	3 (7.7%)	[Clinic with assigned patients.]

* The Staff Model results in this briefing are heavily driven by one strong performer. However, that same organization has a similar market position and presence in state and national markets, so the findings here may be generalizable.

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Relationship of Provider Group Structure to Service Quality

- A few results were significant, and most matched the expected pattern where groups with the most Staff Model elements performed best.



	ADULT	CHILD
Doctor Is Up-to-Date on Patient's Care:	<u>Predicted order</u> ^b	<u>Predicted order</u> ^b
Doctor Follows Up On Tests:	Not in pred. order ^b	Not in pred. order ^b
Got Timely Care When Urgent (PCP):	Opposite of pred. ^{ab}	Not in pred. order ^{ab}
Got Timely Care When Urgent (Specialist):	(Missing data)	(Missing data)
Easy to Get Specialist Appointment:	Somewhat pred. ^{ab}	<u>Predicted order</u>
Got Medical Help After Hours:	<u>Predicted order</u> ^b	<u>Predicted order</u>
Got Specialist Appt. As Soon as Needed:	<u>Predicted order</u> ^b	Mostly as predicted ^b
Easy to Get Care, Tests, Treatments:	<u>Predicted order</u> ^b	<u>Predicted order</u>
Got Interpreter When Needed:	(Missing data)	Not in pred. order ^b

ANOVA with post hoc comparisons. **Bold** denotes that F is significant at $p \leq 0.05$.

Green indicates results support hypothesis. **Red** indicates opposite.

Italics indicate that groups performed in hypothesized order: Staff > MG > Mixed > IPA > Clinic.

Underlined: 2 or more groups have non-overlapping means in ANOVA (usually Staff and Clinic).

^a Fails normality assumption (Shapiro-Wilk $p \geq 0.05$).

^b Fails homogeneity of variance assumption (Levene $p \leq 0.05$). ANOVA is robust to this in larger samples.

Most of these questions used “Never”, “Sometimes”, “Usually”, “Always” response sets, with “Usually” and “Always” tallied as favorable responses. The scores are mean-scored rates of favorable responses for each provider group, among the sample of its patients who responded to the survey.

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Relationship of Provider Group Structure to Service Quality

- Ratings are used by CMS and NCQA to calculate performance of health plans, in ranking, accrediting, and paying plans (CMS).
- PCMH-relevant measures are also used in those scoring systems.
- None of the results for ratings were statistically significant, but nearly all manifested the predicted pattern where provider groups with more elements of staff model operation outperformed the other groups.



	ADULT	CHILD
Rating of Health Care:	<u>Predicted order</u> ^b	Largely as predicted ^b
Rating of Primary Care Doctor:	Staff as predicted ^b	<i>Predicted order</i> ^a
Rating of Specialist	<i>Predicted order</i> ^b	<i>Predicted order</i> ^b
Health Plan Rating:	Mostly as pred. ^b	<u>Somewhat as predicted</u> ^a

ANOVA with post hoc comparisons. **Bold** denotes that F is significant at $p \leq 0.05$. **Green** indicates performance supports hypothesis. *Italics* indicate correct sequence: Groups perform in hypothesized order: Staff > MG > Mixed > IPA > Clinic. Underlined: 2 or more groups have non-overlapping means in ANOVA (usually Staff and Clinic).

^a Fails normality assumption (Shapiro-Wilk $p > 0.05$).

^b Fails homogeneity of variance assumption (Levene $p \leq 0.05$). ANOVA is robust to this in larger samples.

Ratings were given on a scale of 0 to 10, with “8”, “9”, and “10” treated as favorable.

The scores are mean-scored rates of favorable responses for each provider group, among the sample of its patients who responded to the survey.

Distribution of Patient Demographics In Those Structural Types

- Staff model has a lower percent females, but no pattern otherwise.
- Staff model has more elderly, but no age pattern otherwise.



<u>Gender (% Female)</u>	<u>Adult</u>	<u>Child</u>
Staff Model	71.9%	45.0%
Medical Group (MG)	76.5%	49.1%
Mixed (MG+IPA)	77.7%	52.0%
IPA	75.7%	49.0%
Clinic	75.2%	49.2%
<u>Age (children and elderly)</u>	<u>Adult (56+)</u>	<u>Child (<12)</u>
Staff Model	33.8%	75.9%
Medical Group (MG)	16.7%	77.0%
Mixed (MG+IPA)	16.6%	78.0%
IPA	15.0%	80.3%
Clinic	17.2%	84.9%

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Distribution of Patient Demographics In Those Structural Types

- Staff model has a higher percent of patients with disabilities.
- Mixed (MG+IPA) has higher concentration in poorest area.
 - “Mixed” model may merge with established IPAs in hard-to-serve regions for geographical expansion.



<u>Have Disability</u>	<u>Adult</u>	<u>Child</u>
Staff Model	38.1%	4.0%
Medical Group (MG)	18.6%	2.7%
Mixed (MG+IPA)	18.7%	2.4%
IPA	16.1%	2.5%
Clinic	14.3%	1.8%
<u>Region (% in poorest region)</u>	<u>Adult</u>	<u>Child</u>
Staff Model	15.1%	19.0%
Medical Group (MG)	16.1%	22.8%
Mixed (MG+IPA)	25.9%	35.8%
IPA	18.5%	20.5%
Clinic	1.9%	11.1%

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Distribution of Patient Demographics In Those Structural Types

- IPAs and clinics have a higher concentration of ESL/LEP members.
- Mixed (MG+IPA) has lowest percent of non-white adults.



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<u>Language Pref. (% non-English) *</u>	<u>Adult</u>	<u>Child</u>
Staff Model	48.2%	66.6%
Medical Group (MG)	48.7%	71.3%
Mixed (MG+IPA)	44.2%	68.1%
IPA	57.1%	77.2%
Clinic	71.4%	88.0%
<u>Ethnicity (% non-white) *</u>	<u>Adult</u>	<u>Child</u>
Staff Model	87.8%	96.9%
Medical Group (MG)	81.7%	96.3%
Mixed (MG+IPA)	77.3%	97.0%
IPA	89.2%	94.5%
Clinic	91.4%	98.9%

* Includes no resp./declined; assumption that non-white, ESL/LEP have systemic reasons to refuse.

Testing Relationship of Provider Group Structure to PCMH (Cont.)

California's Integrated Health Association (IHA) findings provide independent support for the maintained hypothesis in this paper, that medical group structure is related to quality:



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IHA gathers data on healthcare quality among provider groups (POs) in California. Annual results are published online by the California Office of Patient Advocate (OPA).

- The results below are largely from commercial patient populations.
- Results below for 2013 are based performance in the 2012 measurement year:
 - Searchable by county: <http://reportcard.opa.ca.gov/rc2013/medicalgroupcounty.aspx>.
 - Scoring methodology: <http://reportcard.opa.ca.gov/rc2013/medicalgroupabout.aspx>.

Results:

- 48 POs qualified as top-rated based being in the top 25% of performers statewide on several domains of quality care (HEDIS, patient experience, meaningful use of health information technology, etc.)
- Virtually all POs in that report were structured as medical groups (MGs); with a few Mixed structures having IPAs -- <http://reportcard.opa.ca.gov/rc2013/topmedicalgroup.aspx#All>.
- Among the 48, virtually all were MGs, with a few having mixed structures (MG+IPA).
- 28 of the 48 were Kaiser-affiliated. (In the U.S., Kaiser is likely the archetypal staff-model HMO with associated medical groups.)
 - Among non-Kaiser groups, nearly all are medical groups, with some mixed structure (MG+IPA).
- In the Los Angeles County region covered in earlier slides, the top-performing 11 POs were all structured as medical groups. 8 of these were Kaiser-affiliated, hence are staff model.
- Caveat on disparities: 10 of those MGs are in the network serving Medicaid patients discussed elsewhere in this briefing. However, only about 1-in-15 of those Medicaid patients are in IHA top-rated provider organizations.

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VII. Discussion and Implications

The health plan's survey scores manifest weak-but-systematic evidence that provider groups which self-identify as having more features of staff model practice, their service quality increases.

- Finding supported in the independent Adult and Child samples.
- The IHA results also provide independent corroboration of that hypothesis.
- “Mixed” (MG+IPA) and Clinic often deviated from prediction – need tighter definitions.

The relatively weak showing in the group-level tests is due to low sample size (n=39) among provider groups. The underlying data, however, are from 16,288 member surveys. Because the primary unit of analysis in the study is “provider group,” not “patient”, the study opted for a conservative approach and tested provider groups. For later work, a mixed model with provider group effects should more appropriately represent the provider groups, and will have more statistical power from these same data by drawing from the patient-level information.

The analysis thus used a conservative approach. The finding gives sufficient support to justify additional data gathering, with any additional statistical work focused on constructing a multi-level model that fits provider effects using patient-level data.

Another factor known to be missing from the present approach, is the presence and use of electronic medical records (EMR). Data on meaningful use exist at the provider level for this population. Any future model should test whether the main effect inside provider group structure is EMR. That could be true of HEDIS (which relies heavily on electronic records), but is less likely with CAHPS (which is based on patient assessments of service quality).

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VIII. Recap of Learning Objectives

1. Discuss provider group organizations and their purposes, from patients' and providers' perspectives.

In California contracts, authorizations (specialists, tests, etc.) are often delegated to provider groups, and that is the context in which patients may be aware of the provider group or its function.

To doctors, provider groups provide economies of scale and scope for contracting, authorizing services, and aggregating clinical encounter data.

2. Describe different provider group structures, and which forms are prevalent in a complex network.

Basic provider group structures analyzed include: Staff Model, Medical Group, Mixed (MG+IPA), IPA, and Clinic.

3. Assess which provider group structures tend to deliver the best/worst performance on patients' CAHPS ratings of the quality of services from doctors and clinic staffs.

The analysis gives weak-but-systematic evidence that provider group structures with elements of Staff Model practice, perform best on general ratings, and on PCMH-relevant measures. Some structures may serve providers' preferences for independent practice; and might not serve patients' needs in terms of coordination of care, convenience (one-stop health care), etc.



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VIII. Recap of Learning Objectives



4. Analyze how demographic groups are distributed among provider group structures.

Staff model has more elderly members and more members with disabilities. Staff model has a lower percent of females. Mixed model (MG+IPA) has higher concentration in the poorest region, yet the lowest percent of non-white adults. (Medical Group may merge with established IPA in hard-to-serve areas.) IPAs have the highest concentration of ESL/LEP members.

5. Describe ways in which patients choose (or are assigned) to structures.

Although some medical groups advertise directly to patients, many or most members select a doctor first, and receive the medical group to whom that doctor is contracted. Health plans like L.A. Care use an algorithm to assign the member based on criteria: appropriate doctor (pediatrician for children); facilities within a reasonable travel radius for the member; and language access.

6. Assess which demographic groups fare best or worst under different provider group structures, in their satisfaction with services as patients.

Members with disabilities may fare well in staff model settings, due to their higher and more frequent utilization of services and facilities. Findings on region and language tend to suggest that less centralized structures (MG+IPA, IPA, Clinic) serve poorer areas, and areas where language and ethnic minorities are concentrated. Even if staff model structures excel, the less centralized structures may offer a presence in regions not served by the more centralized structures.

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VIII. Recap of Learning Objectives (Cont.)



7. Describe which structural features of high-performing provider groups can be emulated by poorer-performing provider groups.

Electronic medical records (EMR) are being promoted nationally. Centralization of labs and ancillary services for one-stop access, may be an option for improving access while lowering network costs, but transportation is an issue when centralizing. Changing practice style to incorporate PCMH features has no similar technological fix.

8. Discuss how to integrate the economic incentive logic in the ACO model with the qualitative drivers implicit to the PCMH model.

Pay-For-Performance (P4P) incentive programs that include PCMH measures along with HEDIS, CAHPS, and capacity and process measures, are the most common route.

9. Explain how findings about health care delivery systems can be made actionable for improving quality of services.

Direct incentives based on service quality as an element in P4P, are one method. Contracting is another method: Reforms in health plan accreditation, Medicare Star ratings, and related aspects of health care reform, have increased competitive pressures. Health plans are increasingly receptive to using information on provider group performance in making decisions about which provider groups to partner with, when building a provider network.

IX. Making the Findings Actionable for Better Quality



Medical groups don't have to be fully "staff model" in order to incorporate some of the features that characterize staff model organizations: coordination of care, Health Information Technology; convenience (one-stop health care through centralized lab work and co-location with clinics); more multi-specialty recruiting; dissemination of best practices; training in a uniform style of care, etc.

Health plans have some leverage with provider groups in contracting and incentive programs. This is particularly true if focused on provider groups for whom the health plan's membership constitutes a noticeable portion of the provider groups' patient panels.

Some other features can be promoted through quality improvement projects. For example, staff model practices tend to have good control over calendaring and scheduling visits. The potential efficiencies can be recovered in any clinic through advanced access techniques for managing doctors' time.

Actionability: Potential Actions By Process Owners



- Provider contracting must maintain network capacity, and high-performing staff model groups are not necessarily available with sufficient capacity to be a complete solution. *However, wherever a choice is available, contracts can begin to select and incentivize provider groups that adopt staff model features.*
- Enforcing contract provisions is a solution, but has limitations unless wielded carefully. Providers often have more market power than patients or Medicaid health plans – particularly wherever Medicaid reimbursement is low.
- Given that federal Electronic Medical Record (EMR) incentive money is available as a carrot, health plans can tactfully prod providers and clinics to make use of EMR. Web training showing how the technology actually works, may also lower barriers.
- Use geocoded information to locate areas where multi-service labs are furthest. Identify whether seed money to provider groups or lab services would be sufficient to draw lab services into areas of greatest need.
- For consenting patients, technology and privacy protocols have been evolving for information sharing between providers in separate organizations (something taken for granted in the staff model world). For example, explore the possibility of a daily census of provider groups' patients discharged from hospitals, for timely follow-up by doctors to prevent avoidable ER visits and hospital readmissions.

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Related briefing:

“Does Form Follow Function?: Provider Group Structure as a Driver of HEDIS Quality Of Care Measures in a Large Urban Medicaid Health Plan”,

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