**Supplemental materials for:**

Casalino LP, Chen MA, Staub C, Press MJ, Mendelsohn JL, Lynch JT, Miranda Y. Large Independent Primary Care Medical Groups. *Ann Fam Med.* 2016;14(1)16-25.

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**SUPPLEMENTAL APPENDIX 1. INTERVIEW PROTOCOLS**

**Primary Care Medical Group CEO or President Interview Protocol**

1. How long have you worked in this medical group?

2. What is your title?

2A. How long have you held this position?

3. [Ask only if respondent is an MD] How much time, if any, do you spend seeing patients?

4. When was your group created, and why was it created?

*Ask if not addressed in response to the open-ended question:*

4A. To what extent, if any, were the following important in the decision to create the group:

4A1. To build the capacity to engage in risk contracting with health plans

4A.2. To gain economies of scale to:

4A2a. Implement an electronic medical record

4A2b. Build infrastructure to improve quality – for example, by hiring nurse care managers for patients with chronic illnesses

4A2c. Anything else?

4A3. To gain negotiating leverage with health plans

4A4. To gain negotiating leverage with hospitals

4A5. To gain negotiating leverage with specialists

4A6. To gain revenue from ancillary services, such as X-ray and lab, for primary care physicians, rather than sharing revenue with specialists or a hospital.

5. How was the group created (e.g., by mergers among practices . . .)?

6. What are the advantages and disadvantages to being a large primary care-based group compared to being a more traditional multispecialty group that includes a high percentage of specialists?

*Ask if not addressed in response to the open-ended question:*

6A. What about your ability to distribute revenues from ancillary services to primary care physicians?

4E. Specialists generally generate more revenue. Is it a problem for your group not to have this revenue?

6D. What about your ability to generate savings in risk contracts from reducing specialty costs and to distribute those savings to primary care physicians.

6E. How does the primary care orientation of your group create value? How do you capture that value in revenues?

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4G. Can a primary care only group have as much negotiating leverage with health plans as a single specialty group or multispecialty group?

10. How does your group obtain cooperation from the hospitals to which you admit? In what ways do you want hospitals to cooperate with you?

*Ask if not addressed in response to the open-ended question:*

10A. How do you think hospitals in your area regard your group?

*Ask if not addressed in response to the open-ended question:*

10A1. Do they regard your group as a threat?

10A2. Do they regard your group as a partner?

10B. Is it possible to be a successful ACO without including a hospital as a partner in the ACO?

11. If the group is part of an IPA or PHO (i.e. if the group answered yes to question 11 in the form that was completed)

11A. What are the advantages and disadvantages of being part of an IPA (or PHO) for your group?

11B. How long have you been a member of the IPA/PHO?

12. What is the ownership structure of your group?

*Ask if not addressed in response to the open-ended question:*

12A. Are only physicians owners?

12B. What does it take to become an owner?

12C. What percentage of the physicians are owners?

12D. Are shares equally owned?

412E. What happens if a physician owner leaves the group?

13. How long have the top leaders in your group been in their current positions?

14. How does your group select its leaders?

15. What is the relationship like between the administrative/business leadership and the physician leadership in your group? Do you use the Mayo clinical/administrative dyad structure in the management if the group?

16. How do you bring outside perspective to the physician governing board? Do you have outside board members serving in the board?

17. What would you say is the "business model" for your group? How has the group managed to be successful?

[Note: for the following two questions, we will use the information you provide in aggregate when discussing all groups in the study, but will not use it in relationship to your group specifically.]

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18. Approximately what percentage of Medicare payment rates does your group receive:

19A. from commercial insurers?

19B. from Medicaid?

19C. Do you have a sense of how these rates compare those received by other physicians in the areas?

19. Approximately what does the average primary care physician in your group earn in a year? What is the range?

20. Will you be able to provide us with information regarding your group's performance on measures of quality, cost, and patient experience?

*Ask if not addressed in response to the open-ended question:*

20A1. Medicare PQRS?
20A2. local health plans?
20A3. Medicare shared savings ACO program?
20A4. other (please specify):

21. How would you describe your group's culture?

21A. Has your culture changed over time? If so, how?
21B. Do you think that your culture should change now? If so, how?

22. Did the mission/vision that brought you together work or did it have to change over time? If yes, then how and why did it change?

23. What do you think are the biggest challenges facing your group for the future?

*Ask if not addressed in response to the open-ended question:*

23A. Are there current/future health care system changes or issues that concern your group? How may they impact your group?

24. How would you envision your group growing in the future?

A*sk if not addressed in response to the open-ended question:*

24A. Do you foresee your group:
24A1. expanding specialty services
24A2. remaining primarily primary care
24A3. adding ancillary services
24A4. Anything else

24B. What do you foresee your group looking like in 5 years? 10 years?

24C. If planning to add specialists: in what specialties?

25. What would you say is the biggest legal or regulatory barrier that your group has to deal with? Why is it a barrier?

26. Is there anything else that you would like to tell us? Is there anything that we should have asked that we haven't asked?

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**Primary Care Medical Group Medical Director Interview Protocol**

1. How long have you worked in this medical group?

2. What is your title?

2A. How long have you held this position?

3. How much time, if any, do you spend seeing patients?

4. What are the advantages and disadvantages to being a large primary care-based group compared to being a traditional multispecialty group that includes a high percentage of specialists?

*Ask if not addressed in response to the open-ended question:*

4A. What about your ability to distribute revenues from ancillary services to primary care physicians?

4B. Do you find your group has more cohesion and fewer inter-specialty disputes?

4C. What about your ability to refer patients to any specialist in the community (rather than restricting referrals to specialists within the group)?

4D. What about your ability to generate savings in risk contracts from reducing specialty costs and to distribute those savings to primary care physicians?

4F. Policy analysts often favor multidisciplinary groups because of the opportunities they provide for inter-specialty communication? Is it a disadvantage for your group to lack this?

5. Why do primary care physicians choose to join your group?

*Ask if not addressed in response to the open-ended question:*

5A. What do physicians perceive as the advantages and disadvantages of joining your group, both for themselves and for their patients?

5B. What type of practice environments did most of your group's physicians come from prior to joining?

5C. Is it difficult to find high quality primary care physicians to join your group?

5C1. Approximately how many primary care physicians apply to join your group for every one you accept?

5C2. What do you do to find primary care physicians to join your group?

5C3. Do you think that a scarcity of primary care physicians might detract from your group's ability to be successful in the future?

6. [If the group includes a reasonable number (say ≥ 5%) of specialists], ask:

6A. Why do you include specialists in the group?

6B. Can specialists be owners/partners in the group?

6C. Why are specialists willing to join your group rather than working in a single specialty group, for a hospital, or in a more traditional multispecialty group?

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6D. Does your group plan to add many specialists in the next two years? If so:
6D1. why?
6D2. In what specialties?

7. What specialist groups does your group primarily refer to?

7A. To what degree do individual providers in your organization have a choice of which specialists to refer to?

8. What does your group expect specialty physicians to provide to you when you refer patients to them?

*Ask if not addressed in response to the open-ended question:*

8A. Do you have a written agreement about what will be provided?

8B. Have you made any major changes in specialty referral patterns over the past two years? If so, why, and what have the results been?

8C. Are your group and any specialty groups able to share patient records electronically?

8D. How do you think the specialty groups in the area regard your group? As a threat? As a partner?

24. Who reads the imaging studies for your group? Is that working well?

9. What is/are the hospital(s) to which your group primarily admits patients?

10. Have you made any changes in the hospital(s) to which you admit during the past two years? If so, why?

11. How does your group obtain cooperation from the hospitals to which you admit? In what ways do you want hospitals to cooperate with you?

12. How does your group coordinate care with hospitals?

*Ask if not addressed in response to the open-ended question:*

12A. What communication mechanisms/technologies (shared electronic medical records, health information exchanges, etc.) are used to coordinate care between your providers and hospitals?

12B. Generally, how satisfied is your group with the relationship/level of care/level of communication provided by the hospitals you refer to?

13. Does your group include hospitalists? If so, what are the advantages and disadvantages of having hospitalists within your group?

13A. [If group has hospitalists] Approximately what percentage of your group's hospitalized patients are cared for by your hospitalists?

8C. [Whether or not the group has hospitalists] What percentage of your group's hospitalized patients are cared for by hospitalists who are <u>not</u> employed by your group?

14. Beyond hospital relations, have you been able to create connections to rehabilitation facilities and skilled nursing facilities and to home care?

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15. Has behavioral health played a role in your clinical strategy?

15A. If so, how?

16. How do you utilize nurse practitioners and physician assistants within your group?

17. What has been effective in improving quality in your group?

18. Have you been able to demonstrate cost savings generated by your group for Medicare patients and/or commercially insured patients? What has been most effective in producing savings?

19. Does your group provide individual physicians with reports on any of the following areas of performance?

19A. quality of care
19B. patient experience

19C. cost of care (generic prescribing)

[Please note that reports on generic prescribing should prompt a "yes" answer to the "cost of care" question.]

20. [If yes to any of the questions in question #19] Does your group show physicians how their performance compares to other physicians in the group?

20A. [If yes] Are the other physicians identified individually?

22. How would you describe your group's culture?

22A. Has your culture changed over time? If so, how?

22B. Do you think that your culture should change now? If so, how?

23. What do you think are the biggest challenges facing your group for the future?

24. Is there anything else that you would like to tell us? Is there anything that we should have asked that we haven't asked?

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**Quality Improvement Director (non-physician) Interview Protocol**

1. How long have you been with this medical group?

2. What is your title?

2A. How long have you held this position?

3. To what extent does your medical group do population health management – that is, to what extent does it reach out to patients between office visits to help them improve their help?

4. Can you tell us a bit more about how your group does population health management?

3. What do you think have been the most effective processes for improving the quality of care provided by your group?

4. What do you think have been the most effective processes for minimizing the overall cost of care generated by patients cared for by your group?

*Ask if not addressed in response to the open-ended questions above:*

4A1. Does your group use nurse care managers for patients with:
a) asthma
b) congestive heart failure
c) diabetes
d) depression
e) other (please specify):

4A2. Dies your group use disease registries for patients with:
a) asthma
b) congestive heart failure
c) diabetes
d) depression
e) other (please specify):

6. What are the biggest barriers to improving the quality of care provided by your group?

7. How would you describe your group's culture?

7A. Has your culture changed over time? If so, how?

7B. Do you think that your culture should change now? If so, how?

8. Does your group use any formal techniques, such as lean techniques or Six Sigma? If so, how is that working out?

9. Does your group participate in any "collaboratives" with other groups aimed at improving the care you provided? If so, what collaborative(s)? How is that working out?

8. Does your group have any written agreements with any of the following types of organization? If so, can you tell us a bit about what is in those agreements? How well are the agreements working? By other organizations, we mean:

8A. home health agencies
8B. rehabilitation facilities

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8C. nursing homes

9. Do all – or almost all – of the physicians in your group use an electronic health record?

[If yes]:

21A. What company's EHR do you use?

21B. How long has your group used this EHR?

21C. Does your group's EHR connect to:

21C1. the EHR in the hospitals your group uses most frequently?

21C2. the EHR in the medical specialty groups to which your group refers most frequently?

10. Does your group have a data warehouse? If so, how well is it working?

10A. Where does the data that fills the warehouse come from?

11. Does your group use the data warehouse to:

11A. stratify patients on risk?
11B. create registries of patients with certain chronic diseases?
11C. create "dashboards"

12. What do you think are the biggest challenges facing your group for the future?

13. Is there anything else that you would like to tell us? Is there anything that we should have asked that we haven't asked?

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**Hospital CEO Interview Protocol**

1. How long have you known [NAME OF PRIMARY CARE GROUP]?

2. What are your impressions of the group?

3. In terms of the group's ability to grow and to succeed financially, what do you see as the group's strengths and weaknesses?

4. Is the group a good partner for your hospital? What are the advantages and disadvantages for your hospital of working with [NAME OF PRIMARY CARE GROUP]? Is the group a threat to your hospital?

5. In terms of the group's ability to create value – that is, to provide high quality care at a reasonable cost – what do you see as the group's strengths and weaknesses?

6. Is there anything about the fact that this is a primary care-based, physician-owned group that makes it special? If so, what?

7. Can you give us a quick sense of your view of the competitive environment for physician services in this area? Is there a lot of consolidation of medical groups? Are large numbers of physicians employed by hospitals?

8. Has the hospital created its own primary care group? If so, why, and how has that worked out?

9. Is there anything else that you would like to add? Anything else that we should be asking you?

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**Health Plan Medical Director  Interview Protocol**

1. How long have you known [NAME OF PRIMARY CARE GROUP]?

2. What are your impressions of the group?

3. In terms of the group's ability to grow and to succeed financially, what do you see as the group's strengths and weaknesses?

4. In terms of the group's ability to create value – that is, to provide high quality care at a reasonable cost – what do you see as the group's strengths and weaknesses?

5. Is the group a good partner for your health plan?  What are the advantages and disadvantages for your health plan of working with  [NAME OF PRIMARY CARE GROUP]?  Is the group a threat to your health plan?

6. Is there anything about the fact that this is a primary care-based, physician-owned group that makes it special?  If so, what?

7. Can you tell us anything about your contract with the group?  Does it involve risk for the group for the cost of care?  Potential bonuses for quality of care and/or patient experience?

8. Can you share any data with us on the group's performance compared to the rest of your network?  We would not publish this data or speak about it to others, but would use it in aggregate to help us assess the six groups we are studying.

9. Can you give us a quick sense of your view of the competitive environment for physician services in this area?  Is there a lot of consolidation of medical groups?  Are large numbers of physicians employed by hospitals?

10. Is there anything else that you would like to add?  Anything else that we should be asking you?

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**Specialist group leader Interview Protocol**

1. How long have you known [NAME OF PRIMARY CARE GROUP]?

2. What are your impressions of the group?

3. In terms of the group's ability to grow and to succeed financially, what do you see as the group's strengths and weaknesses?

4. Is the group a good partner for your medical group? What are the advantages and disadvantages for your group of working with [NAME OF PRIMARY CARE GROUP]? Is the group a threat to your group?

5. Is there anything about the fact that this is a primary care-based, physician-owned group that makes it special? If so, what?

6. Do you have any kind of formal contract or written agreement with the group?

7. What does [NAME OF THE PRIMARY CARE GROUP] expect from your physicians when they refer a patient to a physician in your group?

7A. Do these expectations differ from those of other physicians in the area?

7B. Are the expectations reasonable?

8. Can you give us a quick sense of your view of the competitive environment for physician services in this area? Is there a lot of consolidation of medical groups? Are large numbers of physicians employed by hospitals?

9. Is there anything else that you would like to add? Anything else that we should be asking you?

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SUPPLEMENTAL APPENDIX 2: THE SURVEY INSTRUMENT.

Please see attached pdf document.

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# Physician Survey

## Large Independent Primary Care Groups

**1.** During a typical workday, approximately how many patient office visits do you personally conduct? ___ visits

**2.** During a typical workday, approximately how many hours do you work overall? ___ hours

**3.** How would you rate your satisfaction with your medical group at this time?

| Very dissatisfied | Somewhat dissatisfied | Neither satisfied nor dissatisfied | Somewhat satisfied | Very satisfied |
|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ |

**4.** When you decided to join your medical group, what did you feel were the most important reasons for you, personally, to do so?

*Please fill in the oval to the right for one or more of the following choices, but **fill no more than three choices**:*

| | |
|---|---|
| I needed to relocate geographically. | ○ |
| I believed that there was a potential for higher income for me from the group. | ○ |
| The group provided an opportunity to become an owner of the practice. | ○ |
| I believed I would have better alignment with the values and culture of the group. | ○ |
| I preferred a primary-care based group to a multispecialty group. | ○ |
| I liked the clinical quality programs used by the group. | ○ |
| I liked the technological infrastructure (EMR, etc.) of the group. | ○ |
| I believed the group would have greater negotiating leverage with health insurance plans. | ○ |
| I believed the group would provide expertise in the business side of medicine, allowing me to focus on practicing medicine. | ○ |
| I expected to have greater autonomy as an individual physician within the group then if I worked within other large organizations. | ○ |
| I expected to have a better work/life balance. | ○ |

**5.** How would you rate your overall satisfaction with your career in medicine?

| Very dissatisfied | Somewhat dissatisfied | Neither satisfied nor dissatisfied | Somewhat satisfied | Very satisfied |
|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ |

**6.** How many years have you worked in your medical group? ___ years

**7.** What is your specialty?

*Please fill in the oval to the right for one of the following choices as appropriate.*

| | |
|---|---|
| Family Practice | ○ |
| Internal Medicine | ○ |
| Geriatrics | ○ |
| Other (*Please specify*): | ○ |

_____

**8.** Are you an owner of your medical group? Yes ○ No ○

**9.** If you are not an owner of the group, can you become an owner within the next three years? Yes ○ No ○

**10.** What is your age? ___ years

**11.** What is your gender? Male ○ Female ○

**12.** During the five years prior to joining your medical group, what practice setting(s) did you work in?

*Please fill in the oval to the right for one or more of the following choices as appropriate.*

| | |
|---|---|
| Solo/small primary care practice | ○ |
| Multispecialty group practice<br>*approximate number of physicians:* ____ | ○ |
| Hospital-based practice | ○ |
| Academic medical center | ○ |
| Community health center/public clinic | ○ |
| VA/Military | ○ |
| Residency or Fellowship training | ○ |
| Other (*Please specify*): | ○ |

_____

**13.** Please indicate your opinion about the following statements regarding advantages and disadvantages of working in your medical group:

| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|---|
| **a.** Because our group is largely primary care, we have a strong sense of cohesion and few inter-specialty disputes. | ○ | ○ | ○ | ○ | ○ |
| **b.** Because our group is independently owned, I don't feel external pressures from outside entities such as hospitals. | ○ | ○ | ○ | ○ | ○ |
| **c.** Our medical group invests resources in putting processes in place that help improve the quality of patient care we provide. | ○ | ○ | ○ | ○ | ○ |
| **d.** I find it easy to access specialty care for my patients. | ○ | ○ | ○ | ○ | ○ |
| **e.** I am satisfied with the quality of care provided by specialists within my medical group to whom I refer patients. | ○ | ○ | ○ | ○ | ○ |
| **f.** I am satisfied with the communication I have with specialists within my medical group to whom I refer patients. | ○ | ○ | ○ | ○ | ○ |
| **g.** I am satisfied with the quality of care provided by specialists outside my medical group to whom I refer patients. | ○ | ○ | ○ | ○ | ○ |
| **h.** I am satisfied with the communication I have with specialists outside my medical group to whom I refer patients. | ○ | ○ | ○ | ○ | ○ |
| **i.** I am satisfied with the quality of care of hospitals to which I refer patients to be admitted. | ○ | ○ | ○ | ○ | ○ |
| **j.** I am satisfied with the communication I have with hospitals to which I refer patients to be admitted. | ○ | ○ | ○ | ○ | ○ |
| **k.** I am satisfied with the quantity and pace of my clinical workload. | ○ | ○ | ○ | ○ | ○ |
| **l.** I am satisfied with my level of autonomy in the way I practice. | ○ | ○ | ○ | ○ | ○ |
| **m.** I am satisfied with my work/life balance. | ○ | ○ | ○ | ○ | ○ |
| **n.** I am satisfied with the level of ownership that I have or will be able to have in my medical group. | ○ | ○ | ○ | ○ | ○ |
| **o.** The formula that our group uses to determine physicians' compensation rewards physicians who provide high quality care. | ○ | ○ | ○ | ○ | ○ |
| **p.** I am satisfied with the amount of input I have into key decisions that are made in our medical group. | ○ | ○ | ○ | ○ | ○ |
| **q.** I am satisfied with the income I receive from my medical group. | ○ | ○ | ○ | ○ | ○ |

**14.** Are there any comments you would like to make about things you like or dislike about your medical group or about the advantages or disadvantages of working in a primary-care based, physician-owned practice? If so, please add them here:

**15.** Today's date: ___/___/20___

**Month** **Day** **Year**

**Thank you very much for taking the time to complete our survey.**