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Evaluation of the Medicaid Value Program: Health Supports for Consumers with Chronic Conditions

Partnership Health Plan of California Case Study

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PARTNERSHIP HEALTH PLAN'S PHASE INTERVENTION

Partnership HealthPlan (Partnership) is a nonprofit Medicaid (Medi-Cal) health plan in Solano, Napa, and Yolo counties in northern California. Formed in 1994, Partnership has 88,000 members and is the only plan serving Medicaid beneficiaries in the three counties. For the Medicaid Value Program (MVP), Partnership implemented a provider-based intervention known as PHASE (Preventing Heart Attacks and Strokes Everyday), which, developed by Kaiser Permanente, aims to improve care for adult diabetic members with hypertension, cardiovascular disease, or depression. PHASE has three goals:

- Increasing medication use (specifically aspirin, lipid-lowering medications, ACE inhibitors, and beta blockers)
- Increasing laboratory testing, monitoring, and control (of blood pressure, lipids, and blood glucose)
- Promoting lifestyle changes (including tobacco cessation, physical activity, healthy eating, and weight management)

Seven primary care physicians spanning eight small practices participated in the intervention.[1] Although all participating physicians in PHASE received the same training and educational materials, Partnership encouraged each practice to identify approaches and process changes that were most appropriate to their specific practice to help ensure achievement of the intervention's goals. For example, some practices had existing registries to track their patients' laboratory test results or identify which patients were missing which laboratory tests. Other practices did not maintain registries or electronic systems, and therefore pursued the intervention's goals through other means, such as flow sheets, colored chart covers, and decision trees.

Given that the PHASE program was already developed by Kaiser Permanente, its underlying theory and evidence of impact existed when Partnership decided to pursue the intervention; Kaiser's own research had demonstrated that PHASE improved medication use and lowered costs. To assess the effectiveness of the intervention in selected practices with which it contracts, Partnership compared measures of care processes and outcomes for diabetic patients treated by participating physicians (about 225 patients) with the standard care received by diabetic patients in all other practices in Partnership's network, almost 90 practices serving approximately 1,650 diabetic patients.[2]

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[1] Two participating physicians worked in two separate practices. All participating physicians were solo practitioners with one exception and included a mix of urban and rural settings in Partnership's three-county area. These practices included three safety-net providers.

[2] Dually eligible patients were excluded as medication data were unavailable since the implementation of Medicare Part D. Kaiser patients were also excluded because Kaiser's implementation of PHASE was somewhat different from Partnership's, as discussed later.

ORGANIZATIONAL CONTEXT

Partnership is the only plan serving Medicaid beneficiaries in the three northern California counties. While the vast majority of Partnership's members are Medicaid beneficiaries, the plan also serves a small number of members through *Healthy Kids*, a county insurance expansion program. Partnership contracts with approximately 240 physicians spanning almost 90 practice sites. About 12 sites are safety-net providers; Kaiser physicians account for 4 practice sites. Partnership's market area includes a mix of urban and rural areas.

Partnership's interest in this project was spurred to a considerable extent by the financial pressures it faces as a result of California's low Medicaid managed care capitation rates (see Holohan and Suzuki 2003).[3] In response to these cost pressures, Partnership investigated its patient population and identified its members with diabetes as contributing disproportionately to its costs. Partnership's enrollees with diabetes represented less than 8 percent of all members but accounted for at least 15 percent of health plan costs (at the inception of MVP). Therefore, an intervention aimed at improving the care for, and ultimately reducing the costs of, diabetes patients was a logical focus for the health plan's intervention. Partnership decided to pursue a provider-focused intervention after its leadership determined within the past few years that change can be most effectively pursued at the provider level rather than at the member level. Since then, Partnership has focused most of the plan's quality improvement efforts on provider-level interventions.

Partnership operates as a network model health plan, contracting with independent physician practices and clinics across the three-county area it serves. To initiate PHASE, Partnership met in summer and fall 2005 with physicians and practices with which it had strong existing relationships to discuss the intervention. Partnership then moved forward with several practices that, after an initial meeting, appeared ready to make changes (therefore, the practices represent a group that is not necessarily representative of practices with which Partnership contracts).[4] The practices participating in PHASE are a mix of urban and rural providers, and fewer than half are safety-net providers (Table 1, columns three and four).

Historically, Partnership has had strong relationships with the physician community. It built on those relationships to encourage participation in the intervention and also gave practices a small financial incentive—a quality bonus per member per month—for implementing PHASE as a quality improvement project.[5] However, as several Partnership staff noted, the plan could not force protocols on physicians as a staff or group model plan might. Physicians agreeing to participate appeared to have an interest in improving quality of care for diabetic patients. One participating physician noted that the intervention helped streamline the practice's processes "for upcoming pay-for-performance initiatives and also to learn care models that could be expanded clinic-wide."

[3] Among states with Medicaid managed care, California's capitation rates are in the lowest third.

[4] While it was somewhat difficult to recruit participating practices for the intervention, Partnership wanted a manageable number of practices, as each required support and followup on a weekly or biweekly basis.

[5] The quality bonus, which is based on four indicators, can total up to $1.67 per member per month (for a practice's entire patient panel) if a practice pursues all four indicators. Participation in a quality improvement project such as PHASE counts as one of the four indicators.

TABLE 1

CHARACTERISTICS OF PHYSICIAN PRACTICES PARTICIPATING IN PARTNERSHIP'S PHASE INTERVENTION

Practice or Physician	County	Urban/ Rural	Safety-Net Provider	Number of Participating Physicians/Number of Physicians in Practice	Primary Intervention Activities	Existing Registry or Other Tools
Community Medical Center (Vacaville)	Solano	Mix	√	1/1	• Flow sheet from registry used to direct activities during visit • Diabetic/hypertension patient questionnaire given to patients during each office visit • Self-management questionnaire given to selected number of patients each month • Annual depression screening (PHQ-9)	PECS (i2i Tracks soon)
Woodland Health Care Blevins Group	Yolo	Rural		1/5[a]	• Visit plans used to direct activities during visit • Schedule target patients for 30-minute appointment annually • Use of action planning during visit to promote self-management • Provide PHASE education materials as needed • Use of foot examination reminder in chart as needed • Depression screening (PHQ-9) (frequency unclear)	CDEMS
Dr. Johnson (Fairfield and Vacaville)	Solano	Urban and Mix		1/4	• Use of flow chart decision tree in patient chart to ensure PHASE implementation • Record patient body mass index in chart • Document patient self-management activities	None (will use DocSite)
Drs. Velarde and Carandang (Vallejo, American Canyon)	Solano, Napa	Urban Mix		2/2	• Use of green chart covers for patients with diabetes/cardiovascular disease • Use of flow chart/decision tree in patient chart to ensure PHASE implementation	None
Dr. Paukert (Napa)	Napa	Rural		1/3	• Monthly meetings with staff to discuss diabetes patients • Reminders in patient charts about needed laboratory tests • Depression screening of patients (frequency unclear)	Electronic medical record
Winters Health Care Foundation	Yolo	Rural	√	1/1	• Use of flow chart/decision tree in chart to ensure PHASE implementation • Health maintenance reminders in electronic medical record when laboratory tests and so forth are missing or out of date • Development of group visits that will include patient education	Electronic medical record

[a]While only one of five physicians from this practice participated in PHASE, eligible patients of all five physicians were included in the treatment group, given that Partnership only had information on patients' assignment to the practice, not the individual physician.

Several other organizations also participated in this project. Kaiser Permanente staff participated directly by providing PHASE tools and materials, and attending Partnership's quarterly diabetes coalition meetings.[6] In addition, while state Medicaid (Medi-Cal) was not involved in the project, local entities, such as county nutrition services and the Solano Coalition for Better Health, participated in the quarterly meetings and played a supportive role. For example, county nutrition services provided nutrition counseling sessions for provider teams in several participating practices.

The PHASE intervention operated at the same time as existing patient-focused services that aimed to improve diabetes care for Partnership members. LifeMasters, a disease management vendor with which Partnership has contracted since July 2005, operates a patient-based disease management program for Partnership's non-dual members with diabetes or congestive heart failure. LifeMasters's telephonic intervention is aimed at helping patients better manage their conditions through counseling, coaching, and patient education. LifeMasters also participated in quarterly diabetes coalition meetings to improve coordination of practice interventions and outreach to patients.

PROGRAM INTERVENTION

In contrast to many other MVP interventions, Partnership's intervention was a provider-based rather than patient-based intervention. Partnership's role in the intervention involved training participating practices on performance improvement models, PHASE protocol, and providing support for the process changes each practice decided to pursue to reach PHASE goals. While practices decided which activities to pursue, common intervention activities focused on encouraging providers to (1) use registries to monitor their diabetic patients; (2) use a visit planner, which is a sheet inserted into the medical chart that indicates suggested medications, laboratory tests, and so forth; (3) flag medical charts to indicate the need for specific laboratory tests or other protocols; and (4) counsel patients on diet and exercise. One important aspect of the intervention was that it afforded physicians the flexibility to decide what process changes they should make to meet program goals, thereby allowing them to tailor their activities accordingly. Such flexibility was crucial in Partnership's gaining and maintaining physician engagement and improved the prospects for sustainability beyond the timeline of the MVP project.

Practices generally implemented their intervention activities through a team of two at each practice site: the participating physician and an associated nurse or medical assistant. Participating teams varied substantially in the amount of activity and process change that occurred under the intervention. (See last two columns of Table 1 for more information by practice.) One team, for example, modified its registry to monitor diabetic patients' laboratory tests and medications, included visit plans in each patient's chart, conducted depression screenings of diabetes patients, and increased counseling of patients on diabetic self-care issues. At the other end of the spectrum, another team made little progress in changing the process of

[6] The quarterly meetings included all practices participating in PHASE, as well as practices pursuing other diabetes interventions and activities.

care because it lacked any registry or electronic health record to effectively track diabetic patients. This variation in intervention intensity (among other factors) limited our ability to infer whether differences in outcomes over time or across the intervention and comparison groups were attributable to the intervention or occurred by chance.

After securing physician participation, Partnership provided its eight participating physician practices with PHASE training and associated tools, and offered ongoing assistance as needed (contacting each physician/nurse team every one to two weeks, on average). In addition, participating practices attended a quarterly diabetes coalition meeting to discuss any issues with implementation and to share ideas; such peer-to-peer learning reportedly was important for practices. In addition, Kaiser and other external groups also participated in the quarterly meetings. The intervention officially began in January 2006, though practices were at that time (and continue to be) at different stages or levels of intensity in implementing PHASE.

As a provider-level intervention, PHASE did not require patient outreach. Instead, PHASE activities and monitoring were implemented in the context of routine care delivery during physician visits. Participating physicians may have provided patients with education materials on, for example, nutrition and exercise, depending on patients' individual needs. As such process changes were made, the intent was for intervention activities to become part of the physicians' routine practice. In fact, while PHASE targeted diabetic patients, one participating physician indicated that other (non-diabetic) patients with chronic conditions are undoubtedly benefiting from the process changes made under PHASE.

PROCESS AND OUTCOME MEASURES

Partnership's process and outcome measures aimed to determine how well the effort addressed each of its three intervention goals (see outputs and short-term outcomes in Figure 1). Process measures included the proportion of patients who had laboratory tests (including Hemoglobin A1c [HgA1c] and low-density lipoprotein [LDL] tests), and had claims for medications (including ACE inhibitors, statins, and beta blocker).[7] Outcomes measured by Partnership were the proportion of patients with controlled HgA1c and LDL levels (among those with tests). Partnership staff believe that the intervention will ultimately lead to improved health status and quality of life and lower health care costs for targeted patients, per Kaiser's findings on the PHASE program. However, these outcomes would occur over a much longer time period and therefore were not measured as part of this initiative.

For all measures, Partnership examined changes over time, as well as differences between patients in the intervention clinics as compared with non-dual eligible patients in all other clinics with which Partnership contracts (excluding Kaiser clinics). The comparison group consisted of almost 90 practices serving approximately 1,650 patients with diabetes where the number of physicians ranged from one (like most of the intervention sites) to five or more. The number of clients served in comparison group clinics varied more than in intervention clinics because of the

[7] HgA1c, LDL levels, and use of the mentioned medications are clinically recommended quality markers for patients with diabetes and cardiovascular disease.

handful of large practices in the comparison group. The variation in practice size between the intervention and comparison groups is another factor that made inference on reported outcomes difficult. Larger practices might have more resources available to implement protocols than smaller practices, suggesting that the composition of the intervention and comparison groups might have been too different at baseline to make inferences over the intervention period.[8]

Given that the available data did not fully capture how participating practices interacted with patients, measurement of the intervention's effects was somewhat limited. For example, most of the practices implemented depression screening of targeted patients, but data on screening rates were unavailable. Similarly, promoting lifestyle changes was a major component of the PHASE protocol, but because data on patient education or similar activities were stored in practices' registries or electronic medical records, they were cumbersome and Partnership lacked direct access to such information.

Process and outcome measures that Partnership did report provided little evidence that the intervention had an effect over the 12 months ending March 2007, compared with usual care provided by comparison group clinics (Table 2).[9] For example, the change from baseline to followup in the proportion of patients with HgA1c tests was not meaningfully different in the intervention group (5.4 percent) compared with change in the comparison group (7.1 percent). Likewise, changes in the proportion of diabetic patients with an LDL test were also not very different between the intervention and the comparison groups.

Not surprisingly, little change in these two process measures also translated into few meaningful differences in their respective outcome measures. Among patients with an HgA1c test, there was a small increase (1.9 percent) in the proportion with controlled HgA1c, compared with a small drop in the comparison group (1.4 percent); but this trend was likely not significant and not a meaningful change.[10] Trends were even less favorable for the controlled LDL measure among patients with an LDL test. The proportion of patients with controlled LDL in the intervention group, compared to baseline, fell by 5.6 percent compared with a 10.6 percent rise in the comparison group.[11] Because these measures are often the most difficult to change, it is likely that the MVP intervention time period was too short to expect changes due to the intervention.

Reported prescription drug utilization measures also suggested that the intervention did not have much of an effect on patients in intervention clinics compared with those in comparison group clinics. Changes from baseline in the proportion of patients with either ACE inhibitor, statin, or beta blocker prescriptions were either smaller or not considerably different from the

[8] Partnership reported that it did not have the ability to separate small and large clinics from its comparison group due to its data systems limitations.

[9] Due to the problems with its reporting systems, Partnership was unable to report tests of significance for any intervention-comparison differences. However, given the size of its study population and the small differences between the intervention and comparison groups' outcomes, it is likely that none of the differences were statistically different from one another.

[10] HgA1c was defined to be in control if the value was less than 9 percent.

[11] LDL was defined to be in control if the value was less than 100 mg/dL.

proportion of comparison group patients with these prescriptions. In addition, the increase in the proportion of patients with fills for all three prescriptions was only slightly higher in the intervention group compared to the comparison group (33.3 percent versus 30.6 percent), but is likely not indicative of a program impact, since this pattern was not consistent for each individual drug class. The lack of promising outcomes may reflect the relatively small number of patients receiving the PHASE treatment in the participating practices, the fact that some participating practices engaged in less intensive intervention activities than others, and that Partnership chose to compare smaller practice sites to a mix of small and large ones. Given these concerns, it is important to consider these findings in context of the intervention as a whole. In particular, a more thorough investigation of how the intervention was conducted at each clinic might offer insight as to why outcomes did not improve.

INTERVENTION CHALLENGES

While it seems possible to adapt PHASE to the Partnership context, implementation proved to be more challenging than expected, especially as Partnership had relatively little leverage over participating practices. Yet, given that Partnership relied on an existing and well-developed intervention, it could draw on existing materials and experiences (Partnership staff noted that Kaiser Permanente was willing to share this information). Kaiser, however, developed the intervention in the context of a staff model health plan. As a network model plan, Partnership's structure differs markedly from Kaiser's structure, making implementation of PHASE in independent practices difficult. Several individuals involved with the intervention noted that Kaiser can more easily and uniformly implement PHASE across practices because Kaiser (1) already maintains an electronic information technology system, (2) can require its physicians to follow the PHASE protocol, and (3) employs chronic disease management staff whose responsibilities include tracking diabetic patients. Conversely, participating clinics in Partnership's PHASE intervention relied on different systems (some without a registry or electronic medical records). Moreover, participating practices were small, with few office and nursing staff, most of whom were already stretched with existing responsibilities.

An additional challenge was the possibly confounding impact of the LifeMasters disease management program on patient outcomes. Patient education activities under LifeMasters and PHASE may have been duplicated, depending on the extent to which participating physicians in PHASE actively educated patients. However, some viewed the two programs as complementary, given that LifeMasters targets patients and PHASE targeted providers—thereby attempting to influence diabetes care through several means. Nonetheless, as outcome measure results seem to suggest, the PHASE intervention was likely not powerful enough to have an effect beyond any effect that might be associated with the LifeMasters program (though we cannot quantify this either).

Finally, the PHASE intervention occurred alongside other projects and activities. For example, half of the practices participating in PHASE were also a part of a self-management project for which Partnership received funding from the California HealthCare Foundation. In addition, one participating practice and several practices from the comparison group were involved with Partnership's diabetes collaborative. With activities occurring in both the

treatment and comparison practices, the various projects likely confounded the benefits of PHASE and masked any positive developments.

CONCLUSIONS

Given the small number of physicians that participated in the intervention, the variability with which they implemented PHASE, and the fact that LifeMasters may have improved care for all non-dual eligible diabetic patients overall, it is not surprising that the intervention did not demonstrate any meaningful differences over time between patients at treatment and comparison clinics. Nonetheless, the intervention provided Partnership with important qualitative information on implementation challenges and how those challenges varied across the physician practices with which it contracts. In fact, Partnership shared findings and lessons from PHASE during a regional conference on best practices in disease management in the fall of 2006. In addition, although the intervention focused on diabetic patients, potential impacts might possibly be broader; practice changes made as part of PHASE may also affect non-diabetic patients with chronic conditions, as well as non-Partnership patients. (However, these broader impacts were not measured.)

While Partnership faced several challenges in implementing PHASE, several lessons emerged. First, Partnership found that involving a team from each office—rather than just the participating physician—promoted ownership and helped office staff better understand the intervention. Second, of PHASE's three goals, participants reported that promoting lifestyle changes was the most difficult goal to achieve; counseling requires time, and some physicians were uncomfortable in the role of counseling patients. Moreover, there generally was no optimal way to track counseling activities (in the registry or medical record) except through notes in patient charts (for which data abstraction is generally expensive). Finally, Partnership realized the importance of coordinating the PHASE intervention practices with the LifeMasters activities and tried to promote collaboration between groups to avoid duplication of effort.

Given that Partnership allowed participating physicians to tailor PHASE activities to their own practices and to move at their own paces, the changes made in how providers worked with patients were typically incorporated into the care process and appear to have a reasonable chance at being sustained beyond the end of MVP. Moreover, Partnership will continue to offer a quality bonus to participating practices, as well as new practices that want to implement PHASE in the future, which should also help promote sustainability. The extent to which the intervention is generalizable or scalable, however, remains unclear. Physicians were actively recruited to participate in the intervention, and those who agreed to participate formed the intervention group; these physicians may differ systematically from others in Partnership's network and therefore may not be representative of the network of physicians as a whole. The intervention activities may also require physicians to spend more time with their patients—in activities such as patient counseling—and some physicians may be reluctant to do so. In the words of one participating physician, "I'm not sure how successful an expansion would be . . . I think it will be hard to get other providers to buy in. . . ." Partnership therefore must carefully consider how best it could expand the intervention in the future or encourage practices to adopt the most successful components of process change for additional patient populations or as part of other quality improvement programs.

REFERENCES

Holohan, John and Shinobu Suzuki. 2003. "Medicaid Managed Care Payment Methods and Capitation Rates in 2001." *Health Affairs*, vol. 22, no. 1, 2003, pp. 204–218.

TABLE 2

BASELINE AND INTERVENTION PERIOD MEASURES FOR THE INTERVENTION AND COMPARISON GROUPS AS OF MARCH 2007
(Percent of Patients)

	Intervention Group				Comparison Group			
	Sample Size	Baseline	Intervention	Percent Difference	Sample Size	Baseline	Intervention	Percent Difference
HgA1c Test Conducted	226	74	78	5.4%	1,656	70	75	7.1%
HgA1c in control (<9%) among those tested	177	54	55	1.9%	1,239	71	70	–1.4%
LDL Cholesterol Test Conducted	226	75	73	–2.7%	1,656	64	67	4.7%
LDL cholesterol in control (<100 mg/dL) among those tested	165	36	34	–5.6%	1,110	47	52	10.6%
Filled Pfor:								
ACE inhibitor	226	64	64	0.0%	1,656	57	59	3.5%
Statin	226	49	55	12.2%	1,656	47	53	12.8%
Beta blocker	226	26	28	7.7%	1,656	31	36	16.1%
ACE inhibitor, statin, and beta blocker	226	12	16	33.3%	1,656	13	17	30.8%

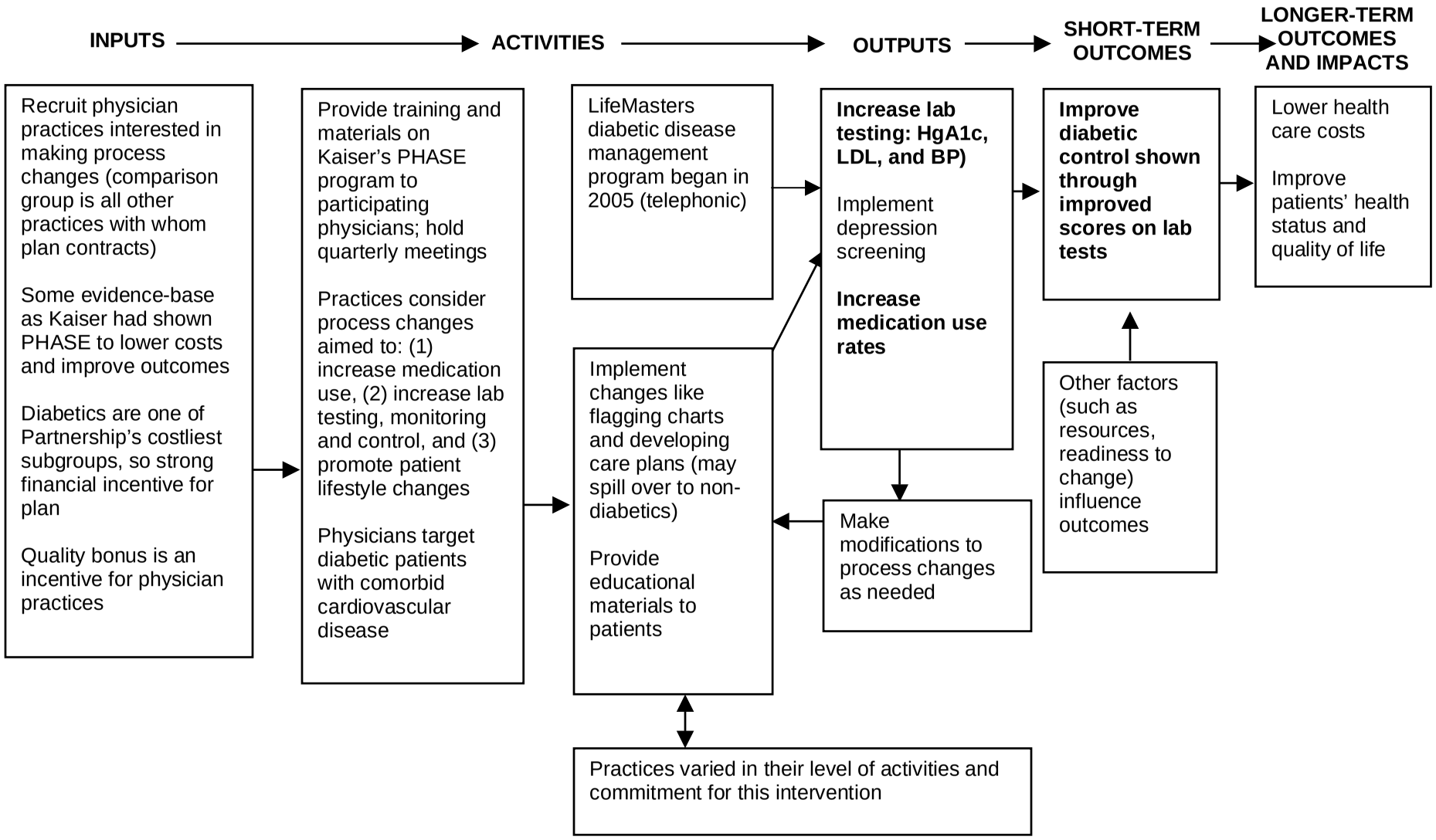
Source: Partnership MVP reporting template.

Note: Baseline measures are for calendar year 2005 and intervention period measures are for April 2006 through March 2007. Partnership also reported rolling 12-month values for each intervention quarter, but these measures are by-and-large representative of reported values. Intervention group patients include all nondual eligible patients with diabetes in intervention clinics and comparison group patients include all nondual eligible patients in non-Kaiser clinics. Partnership did not have enough individual-level data to conduct tests of statistical significance for any of its measures.

ACE = Angiotensin-Converting Enzyme; HgA1c = hemoglobin A1c; LDL = low-density lipoprotein.

FIGURE 1

LOGIC MODEL OF PARTNERSHIP HEALTH PLAN'S PHASE INTERVENTION



Note: **Bold** indicates reported process and outcome measures.