affordable care to patients, incorporate physician leadership and teamwork among providers, and accountability to each other,

(2) patient centered and population health focus that provides multiple points of access to care, inclusion of patients in healthcare decision-making, and resources directed at improving healthcare in the population or community served,

(3) coordination of care and sharing of information across providers,

(4) financial incentives aligned with delivering high quality, affordable care among providers,

(5) deploying evidence-based best practices to minimize quality shortfalls and variations in care,

(6) accessible and shared electronic medical records among providers to enable tracking each patient through the provision of care, performance review, and status of health problems across provider panels,

(7) ability to "right-size" capacity, and

(8) continuous innovation and learning to improve value.[204]

I use the attributes described above to evaluate the likelihood that Highmark's proposed IDN, with WPAHS as its core, is likely to be successful and achieve quantifiable benefits for its members and others.

B. UPE'S PLANNED INTEGRATED DELIVERY NETWORK

Highmark projects that the IDN itself will generate significant savings. I summarize Highmark's projected savings from these factors in Table 16.[205] I describe each component below and evaluate the foundational support provided for these estimated savings. Table 16 shows cost savings as a negative value and additional costs as positive values.

[204] Enthoven at S285-286. The National Public Health and Hospital Institute (NPHHI) recognizes these same attributes of success. See NPHHI, "Literature Review, Integrated Health Care."

[205] Highmark Supplemental Response to PID Request 2.1.1 from the Pennsylvania Insurance Department, Tab A at UPE-0013479. These estimates update previously submitted estimates on September 6, 2011 and reflect the 2012 negotiated contract between Highmark and UPMC, which affected the phase-in of savings. In addition, Highmark lowered its estimate of savings from the Right Treatment, and shifted out the timing of moving oncology services from outpatient settings to medical malls. Savings were also adjusted to reflect updates to Highmark's provider and product strategies. The savings are similar to the estimates submitted earlier by Highmark, although the savings materialize more slowly.

Table 16

HIGHMARK'S PROJECTED TIMING OF IDN SAVINGS AFFILIATION WITH WPAHS ($MILLIONS)

SAVINGS CATEGORY	CY2012	CY2013	CY2014	CY2015	CY2016
UPMC Out-of-Network					
Oncology shift					
Utilization shift					
Reimbursement					
Subtotal	**$31**	**$64**	**$33**	**($15)**	**($15)**
IDN Implementation					
Healthier Population					
Right Setting					
IP Cost					
ASC					
Imaging					
ER					
Lab Cost					
Right Treatment					
Imaging					
Lab Cost					
Lower Factor Cost					
Reduced LOS					
Implants					
Improved Quality					
Reduce Readmissions					
Reduce HAI					
Other					
Subtotal	**($5)**	**($35)**	**($125)**	**($283)**	**($432)**
Total*	**$26**	**$28**	**($91)**	**($298)**	**($447)**

Note: *Total does not sum due to rounding.

Source: Highmark Supplemental Response to PID Information Request 2.1.1

1. IDN SAVINGS WITH UPMC OUT-OF-NETWORK IN HIGHMARK'S HEALTH PLANS

The first three categories of cost savings in Table 16—oncology shift, utilization shift, and reimbursement—reflect planned efforts by Highmark to mitigate its reliance on UPMC.

Highmark's estimated IDN savings assume that UPMC is not offered in any of Highmark's health plans as an "in-network" option for Highmark's policyholders, i.e., a policyholder that chooses to receive services at a UPMC facility will pay higher costs, as will Highmark, for these services than if the member chose an in-network hospital, such as WPAHS. In mid-2010, for example, UPMC changed its billing methodology for physician oncology services that resulted in a significant increase in reimbursements (rates and total payments) for the same level and quality of healthcare services.[206] With the IDN and affiliation with WPAHS, Highmark expects to shift oncology treatment back to physician-based billing rather than outpatient facility-based billing. Oncology reimbursements are a significant component of overall reimbursements to UPMC. To estimate the effect of this shift in patient utilization from UPMC to other care settings, and the attendant cost savings, Highmark makes the assumption that there will be [redacted] higher oncology revenues at IDN facilities than currently, based on a shift in utilization from UPMC "outpatient" facilities to IDN facilities (e.g., medical malls, physician offices) with lower reimbursements.[207] Although a billing designation technicality (physician-based versus outpatient-based source of care) drives these IDN cost savings rather than an improvement in the actual quantity or quality of care provided, the savings are no less important.

Utilization Shifts

The second category of savings identified by Highmark also entails shifting inpatients and outpatients out of higher cost UPMC facilities into lower-cost non-UPMC facilities. To calculate savings in FY15 and FY16 after UPMC becomes out-of-network, Highmark estimates a percent savings from inpatient volume shifts by taking the current inpatient's percent of total Highmark spend, multiplied by UPMC's share of that spend. Highmark assumes that it will be able to shift 90% of that spend to lower cost settings. [208] Highmark assumes that it will not shift more than

[206] UPMC began billing oncology physician services as outpatient charges, which receive a higher reimbursement rate. Highmark's prior contract allowed UPMC to make this change without Highmark consent.

[207] Highmark bases this [redacted] estimate on its historical oncology reimbursements across all network and plan types for its insured members, combined with its predictions on retaining members (consumers) in its broad network (which includes UPMC) and in the narrower network (excluding UPMC).

[208] Dr. Harris notes that the utilization shift category assumes that "Highmark can move 90% of the contestable volume (both commercial and Medicare) to other facilities." He does not provide, however, an opinion on the reasonableness of this assumption since he does not offer an opinion on the reasonableness of Highmark's estimated IDN savings resulting from UPMC being out-of-network in Highmark's plans. He further notes that the 90% assumption applies to other potential cost savings in the

90% of its utilization to aligned facilities because it must cover emergency care at in-network insurance rates.[209] Highmark estimates that it will achieve a 10% savings on spend from shifting this utilization. It performs a similar calculation to estimate percent savings for outpatient services, again assuming it will be able to shift 90% of UPMC share of utilization to lower cost savings and achieve a 10% savings on that spend. Adding the estimated percent savings from outpatient and inpatient volume shifts results in a [redacted] savings on commercial reimbursements.[210] Highmark applies this percent savings to its projected declining Highmark enrollment to estimate the total IDN savings from utilization shift of [redacted] in FY15 and [redacted] in FY16.

In my view, the magnitude and plausibility of these estimated savings is highly predicated on Highmark's assumptions of UPMC utilization, ability to shift UPMC utilization, and its estimated 10% cost savings, all compared with Business As Usual. Highmark's ability to achieve these estimated IDN savings will depend on whether these assumptions materialize as projected in FY16 and FY17.

The last category of IDN value related to UPMC's relationship with Highmark reflects the incrementally higher cost of reimbursements for the Highmark members who choose to continue using UPMC after 2014 when UPMC is out-of-network. Recalling that Highmark assumes 90% of the contestable volume shifts away from UPMC once UPMC is out-of-network, the remaining 10% of volume that does not shift incurs higher reimbursement costs, which must be paid at out-of-network rates, assumed to be [redacted] of billed charges. As I discussed above, I conclude the assumption that only 10% of the volume remains at UPMC to be unsupported, and it is likely that Highmark's reimbursements to UPMC could be significantly less than estimated because it

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IDN valuation, which he does address, but again he does not address the reasonableness of the 90% assumption. See Harris Amended Supplement 4 at footnote 28.

[209] Highmark assumes about 30% of volume is emergency-related. Based on a study of its experience in Monroeville where UPMC did not have a facility (prior to UPMC East opening), Highmark examined the share of emergency care for members in Monroeville that went to UPMC facilities elsewhere rather than to Forbes Regional Medical Center in Monroeville. Two-thirds chose to obtain emergency medical care at Forbes. Based on this study, Highmark includes in its 90% estimate some diversion (2/3s) of emergency care to aligned facilities.

[210] The calculation is as follows: ([redacted] inpatient spend of total spend * [redacted] UPMC share of IP spend * 90% utilization shift * 10% cost savings) + ([redacted] outpatient spend of total spend * [redacted] UPMC share of IP spend * 90% utilization shift * 10% cost savings) = [redacted] cost savings on commercial reimbursements applied to Highmark's PMPM of projected enrollment. Across all WPAHS incremental discharge initiatives, WPAHS gains almost 80% of the incremental discharges from UPMC.

will have fewer enrollees, and therefore admissions, choosing to go out-of-network to UPMC in emergency situations. I also conclude, based on my knowledge of out-of-network rates, that [redacted] of billed charges is a reasonable assumption.

2. IDN IMPLEMENTATION AND ESTIMATED COST SAVINGS

Working with a consultant, Highmark quantified the benefits it would derive from implementing an IDN.[211] I summarize these incremental savings in the second part of Table 16. The IDN's value to Highmark and its insured members derives from several key components: (1) healthier population, (2) right setting of care, (3) right treatment, (4) lower factor costs, (5) improved quality of care, and (6) other, which is primarily therapeutic substitution of treatment. Highmark projects fully implementing these sources of value by July 2016, which will generate $432 million in cost savings in CY2016 (see Table 16 above).[212]

The term "Healthier Population" refers to Highmark's integrated care strategy to lower costs by reducing inpatient hospital volume through improved primary care physician activity.[213] A key component of that strategy is the use of patient-centered medical homes ("PCMH"), which provide a primary care physician and team to deliver coordinated care across conditions and episodes of care to a specific patient.[214] Practice-based evidence indicates that PCMHs promote better access to care leading to reductions in emergency room visits and hospitalization, which

[211] The original analysis, prepared by McKinsey & Company and submitted in Highmark's Response to PID Information Request 2.1.1, assumed that UPMC would not be part of Highmark's network after December 2012. The values estimated for each component of the IDN are referred to in the document as "directional estimates." Highmark updated these estimates to incorporate the UPMC in-network agreement through December 2014.

[212] Dr. Harris described these estimates in Harris Amended Supplement 4. He did not offer an independent assessment of their reasonableness.

[213] Highmark's Response to PID Information Request 2.1.1 from the Pennsylvania Insurance Department at UPE-0012020. See also Harris Amended Supplement 4 at ¶ 20.

[214] Shortell, Stephen M., Robin Gillies, and Frances Wu, "United States Innovations in Healthcare Delivery," *Public Health Reviews*, (1990), Vol. 32, No. 1, at 192-193. PCMHs consists of four key elements: (1) commitment to primary care, (2) emphasis on the patient, (3) implementation of new model of care, including EHRs, use of disease registries, guidelines, and patient self-management support programs, and active participation in continuous quality improvement initiatives), and (4) increased payment incentives for providing more coordinated care.

have resulted in the same or lower costs.[215]

Highmark estimates it will attain a gradual phase-in of savings as it implements its integrated patient-centered care strategy, as shown in Table 16. By CY2016, Highmark projects savings of [redacted] million. Highmark assumes that it will be able to reduce inpatient case volume by [redacted] through improved primary care physician initiatives with its aligned physicians, and by [redacted] working with non-aligned physicians.[216] Highmark focuses on three categories of potential cost savings: (1) reducing avoidable admissions through increased prevention, (2) preventing readmissions through appropriate discharge follow-up, and (3) shifting site of care to outpatient and ambulatory surgical centers.[217] These programs and expected savings phase in over the 2013-2016 period. Highmark anticipates achieving savings somewhat faster through its tiered network—10% by January 2013, 80% by January 2015, and 100% by January 2016. Savings through Highmark's broader network (which includes UPMC hospitals) materialize more slowly—5% by January 2013, 50% by January 2015, and 100% by January 2016. The continuation of Highmark's contract with UPMC through 2014 results in savings in the earlier years. Once the UPMC contract ends, Highmark projects that it will achieve full savings by 2016. This suggests that extending the UPMC contract beyond 2014 would reduce savings to less than projected, depending on the negotiated UPMC reimbursement rate and its effect on the premium differential between the tiered and broad networks.

Highmark's "Right Setting of Care" cost savings derive from shifting certain higher-cost patient care to lower cost facilities capable of providing a more appropriate level of care. Highmark

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[215] Shortell, et al at 193.

[216] The basis for the [redacted] reduction is literature on PCMH and ACO experience. The McKinsey & Company document sources "pilot ACO experience, AHIP (innovations in Reducing Preventable Hospital Admissions, Readmissions, and Emergency Room Use). Highmark provided Compass Lexecon with several citations to the literature to support this estimate, specifically "HealthPartners BestCare Initiative, How to Deliver $2 Trillion in Medicare Cost Savings and Improve Care in the Process," undated, available at www.ihi.org; Kevin Grumbach, Thomas Bodenheimer, and Paul Grundy, *The Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence on Quality, Access and Costs from Recent Prospective Evaluation Studies*, August 2009; and Katherine Gottlieb, Ileen Sylvester, and Douglas Eby, *Transforming Your Practice: What Matters Most*, Family Practice Management, www.aafp.org/fpm, January 2008. Each of these articles provides statistics on cost savings achieved using PCMH or ACOs, such as readmissions and emergency care visits. These studies support the proposition that significant cost savings can be attained using patient-centered integrated care methods, such as PCMHs and ACOs.

[217] The studies cited by Highmark indicate a 10-29% cost savings using these integrated care approaches. Highmark uses the more conservative [redacted] and [redacted] estimates.

estimates phased-in costs savings will reach [redacted] million in CY2016. Highmark estimated savings are as follows:

- Shifting inpatient admissions to lower cost facilities—Highmark assumes it will achieve [redacted] savings on the [redacted] of inpatient admissions that would shift to lower cost standalone or outpatient care facilities. This results in an overall cost savings of [redacted] or approximately [redacted] million, by CY2016. This is in addition to the [redacted] elimination of inpatient volume results discussed above.
- Shifting outpatient ambulatory surgery to standalone centers—Highmark's data indicates that approximately [redacted] of its outpatient volume is ambulatory surgery. Industry benchmarks suggest that standalone ambulatory surgery centers can perform 50% of ambulatory surgery.[218] Highmark assumes that it can shift [redacted]. Standalone centers are approximately [redacted] less costly than hospital-based ambulatory surgery centers. Since outpatient reimbursements are [redacted] of total reimbursements, the savings is approximately [redacted] If ambulatory surgery centers perform at lower costs than higher cost outpatient facilities, this would result in cost savings of [redacted] million by CY2016.
- Shifting patients to standalone imaging centers—Highmark data indicates that [redacted] of its reimbursements are outpatient-related. Approximately [redacted] of its outpatient spending is for imaging. Assuming that Highmark can shift [redacted] of the volume at an estimated cost savings of [redacted] advantage over outpatient imaging, this results in an overall cost savings of approximately [redacted] or [redacted] million as of CY2016.[219]
- Shifting urgent care from ER to urgent care facilities—Approximately [redacted] of Highmark's reimbursements are for outpatient-related services. About [redacted] of its spend is for emergency department services. Assuming that it can shift approximately [redacted] of this volume, Highmark estimates half of that shiftable volume would actually shift. This results in a cost savings of [redacted] or [redacted] million by CY 2016.
- Lowering laboratory costs by encouraging patients to use lower cost vendors rather than higher cost hospital laboratories—Recognizing that [redacted] of the volume is outpatient-related reimbursements, Highmark estimates that about [redacted] of that is laboratory services.[220] Highmark estimates that it can shift [redacted] of that volume at a [redacted] cost advantage over hospital-provided laboratory services. This results in an overall cost savings of [redacted] million, as of CY 2016.

Highmark projects these Right-Setting cost savings phase in over the 2013-2016 period.

Highmark projects additional laboratory and imaging cost savings associated with more appropriate uses of these services, which Highmark terms "Right Treatment." McKinsey & Company estimated that laboratory and imaging diagnostics prescribed in Highmark's service

[218] Currently, [redacted] of Highmark's health plan enrollees use standalone centers for ambulatory surgery.
[219] McKinsey & Company bases the [redacted] volume shift on its review of blinded industry case studies. Highmark's fee schedule shows a [redacted] differential cost advantage for imaging performed in standalone imaging centers compared with hospital imaging services.
[220] Highmark's Response to PID Information Request 2.1.1 at UPE-0012021-25.

area are significantly higher than in the BCBS Mid-Atlantic region. By reducing the utilization of these services to 20% above the benchmark, Highmark projects it could eliminate about [redacted] of its current imaging and laboratory utilization. Applying the same [redacted] spend on outpatient services, [redacted] of which is for imaging, this results in a cost savings of approximately [redacted] million by CY2016. Similarly, applying the same methodology to laboratory services, the estimated CY2016 cost savings is [redacted] million.

Another area of cost savings relates to "Factor Costs," which includes savings from reducing inpatient length of stay and managing the appropriate selection of joint replacements.[221] Inpatient length of stay is a major determinant of hospital costs. McKinsey & Company's Sources of Value analysis estimates that Highmark could reduce inpatient length of stay by [redacted] on half of its remaining inpatient spend by modifying its inpatient reimbursement strategy to induce shorter lengths of stay. Approximately [redacted] of Highmark's total spend is inpatient-related, which, applying the [redacted] reduction, is approximately [redacted] of Highmark's total spend. Highmark assumes a [redacted] reduction in costs, and an assumed [redacted] capture rate based on Highmark's experience in partnering with facilities to improve efficiency and sharing these savings with the facility. Overall, this reduction in factor costs represents approximately [redacted] of Highmark's total spend of [redacted] million as of CY2016.

A much smaller cost saving emanates from convincing physicians to standardize purchases of less expensive joint replacements. Because purchases of joint replacements account for a very small percentage of Highmark's overall total healthcare spending, this effort generates only about [redacted] million in total cost savings by CY2016.

Highmark also expects to achieve cost savings from "Improved Quality," which consists of reducing inpatient readmissions and reducing hospital-acquired infections ("HAI"). Healthcare practitioners have focused much effort on reducing these two categories of costs. Highmark bases its [redacted] million in cost savings by CY2016 on the work performed by McKinsey & Company.

The last category of estimated IDN cost savings, "Other," derives from Highmark's ability to

[221] Although improved quality is a Highmark objective of developing its IDN, the estimated cost savings under Improve Quality derive from preventing patient readmissions and reducing hospital acquired infections. See Highmark's Response to PID Information Request 2.1.1 at UPE-0012030-31.

encourage more physicians to employ therapeutic substitutions in their practice. Therapeutic substitution includes encouraging physicians to prescribe generic drugs as substitutes for brand-name drugs and encouraging physicians to prescribe less costly alternative therapies for more widely accepted, expensive therapies. Highmark's data indicates that drug spend accounts for approximately [redacted] of its total healthcare spend. Since Highmark already has generic substitution programs in place, the cost savings are minimal. The largest savings, approximately [redacted] million by CY2016 derives from physicians employing less costly alternative therapies. Highmark plans to educate its physicians on the merits of therapeutic substitution as part of its PCMH and ACA initiatives.

The capital costs of developing and implementing UPE's IDN is significant, approximately $1 billion. In Table 17, I summarize the component costs based on information provided by Highmark.[222]

Table 17

Provider Network Stategy Implementation

IDN Component	Expenditure $M
TOTAL	***$1,000***
WPAHS	[redacted]
Physican Network	
Medical Malls	
Community Hospitals/Outpatient Services	
JRMC	
SVHS	
Other	

3. CURRENT STATUS OF UPE'S IDN

As of January 9, 2013, Highmark had implemented several components of its IDN strategy. Specifically, Highmark had employed [redacted] physicians and had offers in progress to another [redacted] physicians. It has entered into affiliation agreements with WPAHS and Saint Vincent hospital systems, although Highmark has not yet consummated these affiliation agreements, and has completed its affiliation agreement with Jefferson Regional Medical Center. It also has affiliated

[222] Some portion of the Community Hospital investment is attributable to JRMC.

with Premier Medical Associates and, and it has been widely reported in the media, MedExpress. As part of its medical malls strategy, Highmark will be opening its facility at the Wexford Mall in Summer 2014 and the Monroeville Ambulatory Center in Summer 2013. The latter will house four operating rooms and three gastroenterology procedure rooms. In addition, it is presently expanding the Bethel Park Outpatient Center.[223]

Highmark's group purchasing organization ("GPO") is operating and has five provider contracts. JRMC recently joined the GPO. The GPO's pharmacy and medical surgery warehouses will open in Summer 2013. [224]

A major component of UPE's IDN strategy is bringing physician practices into the network in terms of management and ACA reimbursements. Thus far, [redacted] physician practices have joined and [redacted] practice staff. It currently has another [redacted] physician practices onboarding.

As of January 9, 2013, Highmark has committed $907 million to develop its IDN and has spent $311 million towards that commitment. [225]

4. IMPACT OF THE IDN ON HIGHMARK PREMIUMS

Overall, Highmark plans to invest $1 billion to implement its IDN strategy, which Highmark projects will generate approximately $447 million per year in healthcare cost savings by CY2016. Using the cost savings phase-in projections (shown in Table 19), differences in savings relating to Highmark's tiered and broad networks, and enrollees within the service area affected by the IDN, Highmark translates this into a savings of approximately 8% from its Business As Usual ("BAU") forecast (i.e., without the IDN).[226]

Dr. Harris opines that competition between two IDNs, such as UPMC and Highmark, will result in lower prices to the market and more efficiencies passed on to consumers than that which

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[223] "Highmark/WPAHS Affiliation Update for the Pennsylvania Insurance Department, January 9, 2013," at 2.
[224] "Highmark/WPAHS Affiliation Update for the Pennsylvania Insurance Department, January 9, 2013," at 2.
[225] "Highmark/WPAHS Affiliation Update for the Pennsylvania Insurance Department, January 9, 2013," at 2.
[226] Highmark estimates the IDN would affect [redacted] of its large group enrollees, 90% of its small group enrollees, and [redacted] of its senior group.

would occur with only one IDN.[227] A firm in a perfectly competitive market that is able to replicate the lower costs structure of a rival firm will cause the market supply curve to shift downward and savings will be passed on to consumers. If Highmark were able to create cost efficiencies through the integration of its health plans with hospitals and physicians, and through furthering WPAHS's current integration of physicians and its hospital network, this strategy would enable Highmark to replicate integrated cost efficiencies purportedly achieved by UPMC. Dr. Harris does not opine that these savings will actually materialize; only that IDN competition will enable the pass through of these cost savings to consumers if they do occur. Highmark estimates that the IDN, with the WPAHS affiliation, will result in a $3000 lower premium for a family of four than would occur without the IDN and WPAHS affiliation. Highmark believes that a substantial portion of its membership is at risk should UPMC and Highmark not reach an in-network reimbursement agreement after December 2014 and it is unable to affiliate with WPAHS. Highmark believes that the savings it expects to generate from the IDN will enable Highmark effectively to compete against other health plans offering in-network access to UPMC.

5. EVALUATION OF WHETHER HIGHMARK'S PROPOSED IDN HAS THE NECESSARY ATTRIBUTES TO SUCCEED

Using Enthoven's eight attributes of a successful IDN described above, I evaluated the likely impact of Highmark's intended IDN using information provided by Highmark.

Shared value and goals: Success depends on whether participants, including administrators, board of directors, physicians, and other stakeholders, commit to delivering high quality, affordable care to patients and have the organizational structure to facilitate teamwork and accountability among stakeholders. Enthoven reports that physician leadership is essential for success.[228] With respect to physicians, Highmark plans to align most practices using either a joint practice operating model or direct employment of physicians. It plans to use a physician contracting model only during a transition period, along with tiering, to incentivize change.[229] To

[227] Harris Amended Supplement 4 at ¶¶ 27-28.
[228] Enthoven at S286.
[229] Consumer choice initiative products, e.g., tiered networks, have been shown to result in positive consumer behavior changes. Sinaiko, Anna D., "How Do Quality Information and Cost Affect Patient Choice of Provider in a Tiered Network Setting? Results from a Survey," Health Services Research, (April 2011), 46:2.

align secondary care, Highmark currently plans to develop steering, pay-for-value reimbursement, and shared tools, e.g., EMR, to change referrals.[230]

Highmark's broadly defined strategy appears consistent with the shared values and goals as an element for implementing a successful IDN. Highmark's ACA model appears to set up appropriate incentive mechanisms to promote shared value and goals.[231] The details underpinning these broad plans are of most relevance in assessing the likelihood of success. Highmark's ACA model appears to be sufficiently specific and transparent on the performance required of physicians to receive compensation for achieving shared goals. It remains uncertain whether the compensation is sufficient to incentivize physicians to undertake and continue to meet the additional performance requirements once they sign on with the program.

Patient-centered and population health focus: The Highmark IDN will use patient-centered medical homes to provide comprehensive, coordinating care by focusing on the "whole" patient. The patient's personal physician or a clinical lead will be responsible for coordinating all caregivers, including family members. Under PCMH, patients choose their personal physician.[232] PCMHs are more effective in providing "quality of care, patient satisfaction with care, care coordination, and access than other alternative practice means" and overall lower costs.[233] The research to date indicates that results depend on the size of physician practices encompassed under the PCMH and on the presence of key structural and point of care elements, such as establishing longer patient visit times. Shortell *et al* also state that for a PCMH to be successful, it "must be coupled with a larger entity that can bring in other components of the delivery

[230] Highmark's Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012808.
[231] "Quality Blue, Accountable Care Alliance, ACME PCP Pitch Pack, August 13, 2012."
[232] Highmark's Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012938.
[233] Shortell, Stephen M., Robin Gillies, and Frances Wu, "United States Innovations in Healthcare Delivery," *Public Health Reviews*, (2010), Vol. 32. No. 1, at 193-194. The authors cite to Group Health Cooperative of Puget Sound in Seattle WA use of PCMHs which resulted in a 29% reduction in emergency room visits and an 11% reduction in ambulatory care sensitive admissions compared to control sites. There were also significantly higher patient experience scores and less staff burnout. The Community Care of North Carolina PCMH also showed positive effects compared with control sites. This PCMH achieved a 40% decrease in hospitalization for asthma and an 11 % lower rate of emergency room visits. The program also resulted in significant total savings to NC's Medicaid and SCHIP programs. In Pennsylvania, Geisinger's use of PCMH's used "health navigators" to achieve a 14% reduction in hospital admissions relative to a control group, and a 9% reduction in total costs over a 24-month period. Its return on investment in this program was greater than 2 to 1. For Intermountain Healthcare in Salt Lake City UT, its use of a PCMH resulted in an absolute reduction of 3.4% in two-year mortality for high risk elderly patients relative to the control group. In addition, Intermountain achieved a 10% relative reduction in hospital admissions and a net reduction in total costs per patient per year.

system, provide resources, create economies of scale, and implement accountability for performance."[234]

Based on the evidence to date, incorporating a PCMH model into UPE's IDN should generate materially improved clinical and fiscal outcomes. Highmark's broadly defined strategy is consistent with patient-centered and population health focused strategies that have worked in other successful IDNs and Highmark has set up its ACA model as a mechanism to reward participating PCMH physicians and facilities for achieving particular goals.[235]

Coordinated care and information sharing across providers: Through the deployment and widespread availability of Highmark's health information exchange and electronic health records system (HIE/EHR), Highmark expects physicians and clinicians will have the means to review and update a patient's EHRs and create a care plan that coordinates care across providers. These care plans will incorporate insights from evidence-based research.[236] IDN providers include medical malls, urgent care centers, centers of excellence, hospitals, post-acute care centers, and virtual care services.[237] The intended purpose of these multiple access points is to enable provision of medical services at the right level of care to facilitate better clinical outcomes with improved cost efficiencies.

Highmark's health information exchange system and electronic medical records are likely to facilitate the coordinated care that has proven to be attainable with such systems. Highmark has not provided details on the mechanisms it will use to develop care plans and deploy these strategies across providers. Highmark has provided details in its ACA model on mechanisms to promote alignment and coordination of care. In addition, the sharing of detailed utilization and quality metrics with ACA participants appears to be of the type shown to promote improved quality and delivery of healthcare.

Financial incentives: Modifying healthcare consumer and provider consumption behavior is difficult. Specifically, Highmark envisions IDN physicians will effectively re-direct patients towards the most cost-efficient, high-quality options for care, which would include medical

[234] Shortell, Stephen M., Robin Gillies, and Frances Wu, "United States Innovations in Healthcare Delivery," *Public Health Reviews*, (2010), Vol. 32. No. 1, at 193-194.
[235] Shortell, Stephen M., Robin Gillies, and Frances Wu, "United States Innovations in Healthcare Delivery," *Public Health Reviews*, (2010), Vol. 32. No. 1, at 193-194.
[236] Highmark's Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012939-40.
[237] Highmark's Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012942-47.

malls, outpatient clinics and surgery centers, and lower cost hospitals. To incentivize patients to choose the most cost-effective, high-quality healthcare delivery option, Highmark plans to use its Community Blue health plan, which offers health care within the IDN in return for lower premiums. The Community Blue health plan excludes most UPMC hospitals, which Highmark views as a higher-cost provider and one inconsistent with its lower-cost health plan.[238]

To incentivize providers to re-direct patients to more cost effective, high-quality healthcare delivery, Highmark will employ a pay-for-value reimbursement structure that incentivizes providers to adhere to evidence-based care, participate in shared services and improve first-time outcomes. Providers will receive higher reimbursements for certain procedures by lowering costs elsewhere in the system.[239] Physicians will receive additional compensation for meeting quality, cost, and value metrics, e.g., reducing unnecessary utilization of medical resources, reducing variability in practice, managing length of stay more effectively, and selecting lower cost medical supplies.[240] As part of its ACA strategy, Highmark identified 50 independent PCP practices with a patient attribution of around 200,000 members. Highmark's goal was to sign ACA contracts that would deliver 75% of that member attribution volume. As of December 2012, Highmark had secured contracts with eight of the largest practices, which Highmark reported would deliver over 100,000 patients and allow it to meet its 75% goal.[241]

Highmark premises the success of changing patient and provider behavior to choose more cost effective, high-quality delivery of care on its ability to successfully design and implement these financial incentive programs. The adoption of Community Blue is the mechanism for shifting inpatients from UPMC to WPAHS. The projected number of shifted inpatients is substantial and varies by member segment. [redacted]

[238] As of December 2012, hospitals in the Community Blue network included 50 hospitals and over 7,600 physicians.

[239] "Supplemented Overview of Highmark's Strategic Vision," Amendment No. 2 to Form A, Tab E at 21. In follow-up discussions with Highmark ACA responsible management, Highmark indicated that it provides PCPs with a pro forma showing the physicians and practice a comparison of reimbursements that the physician and practice would obtain under the Quality Blue and ACA plans based on current performance. The physicians and practice also receive information showing the upside in reimbursements for meeting the requirements under the ACA. Highmark ACA responsible management indicated that these data show significant upside reimbursement potential and have been well-received by these physicians and practices. Discussions with Highmark ACA responsible management, December 12, 2012.

[240] "Supplemented Overview of Highmark's Strategic Vision," Amendment No. 2 to Form A, Tab E at 21.

[241] Discussions with Highmark ACA responsible management, December 12, 2012.

[redacted] The expected switching of patients from UPMC would include both inpatient and outpatient services with inpatient services expected to be [redacted] of the total and the UPMC movement to WPAHS reflects [redacted] of the total UPMC shift.[242]

By year-end 2012, Community Blue had approximately [redacted] enrollees. These enrollees include approximately [redacted] WPAHS members and [redacted] Highmark members. Approximately [redacted] different groups account for the remaining [redacted] members.[243]

It remains uncertain whether the financial incentives Highmark has constructed are sufficiently attractive to change substantially the behavior to physicians and members to achieve the projections Highmark has set forth.[244]

Evidence-based best practices: UPE's IDN will use evidence-based data analysis, both internal and external, to improve its clinical practices and develop new protocols or order sets.[245] Analysis of data is useful in identifying patients at greatest risk for specific health problems so that interventions can take place. In addition, data analysis can provide insight into which patients are most open to behavior change and response to interventions.[246] Highmark details some efforts in its ACA model promoting clinical coordination and improved outcomes. The level of specificity is not as detailed as other areas of the ACA program. With the limited information provided, it is difficult to assess the likely success of Highmark's evidence-based best practices.

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[242] "Community Blue Pricing Summary, Calendar Year 2013." See also Community Blue, Response to PID Request-September 6, 2012; Community Blue, Offering a Range of Benefit Designs for Groups of 2-50; Community Blue, Offering a Range of Benefit Designs for Groups of 51-99.

[243] Discussion with Highmark, February 7, 2013. Response to Blackstone Request Regarding Community Blue confirmation of Highmark Community Blue enrollments received March 8, 2013.

[244] The ACA reimbursement program awards points towards increased reimbursements for in-system ACA admissions, which would tend to direct admissions to participating hospitals. This would include not only WPAHS, but all other participating hospitals.

[245] Highmark's Supplemental Response to May 3, 2012 Letter from the PID, at UPE-0012952.

[246] Highmark's Supplemental Response to May 3, 2012 Letter from the PID, at UPE-0012953.

Accessible and shared electronic medical records among providers: Successful IDNs exhibit a strong commitment to making all patient records accessible to all providers within the IDN and to most community providers, including those outside the system. The EHRs must track all patient encounters and possess the ability to combine all data on a system-wide basis for analysis and benchmarking. [247] Feedback on clinical and fiscal performance must be regularly available to providers to achieve the clinical and fiscal accountability that defines an ideal IDN.[248]

Highmark appears to embrace the criticality of implementing a comprehensive and fully accessible electronic health records system with its planned HIE and HER, and providing the cost and utilization output from those records back to physicians and facilities to improve quality and cost/utilization. If Highmark is successful in implementing EHR and HIE across its IDN system, with accessibility for all providers, it will be a critical stepping-stone for implementing a successful IDN.

Ability to "right-size" capacity: As discussed in this report, WPA is an over-bedded, oversupplied region for the delivery of healthcare. Only three hospitals in WPA, all UPMC hospitals, have occupancy rates above 80%. Community hospitals' occupancy rates range between 57-72%, well below the rate many healthcare practitioners view as an efficient utilization level for non-ICU care.[249] WPAHS's occupancy rates range from 44.5 to 70%.

I assessed the implications of this excess capacity by estimating the additional admissions that could occur at area hospitals if each hospital were to operate at 75% and 80% capacity rather

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[247] For example, As of June 2009, Geisinger's EHR system contained more than three million patient records and acts as a "central nervous system" for the Geisinger organization. According to an article describing the system, the structure supports evidence-based practices at the point of care. It also supports a patient web portal that has shown to be effective in achieving a decline in missed appointments, and fewer phone calls to Geisinger clinics per month, which lead to greater physician and office staff productivity. McCarthy, Douglas, Kimberly Mueller, and Jennifer Wrenn, "Geisinger Health System: Achieving the Potential of System Integration Through Innovation, Leadership, Measurement, and Incentives," The Commonwealth Fund, Case Study, Organized Health Care Delivery System, June 2009, at 3-4.

[248] NPHHI at 9.

[249] As a general rule of thumb, acute care hospitals typically consider an occupancy rate of around 80% or more as an acceptable level, although this may vary. For example, intensive care units typically consider an occupancy rate of around 70% or more as acceptable. There is no ideal hospital occupancy rate that applies to all hospitals. Determining an efficient occupancy rate depends on many hospital attributes, such as size, rural/urban location, turn-away rates, and specialty bed pools within a hospital, such as obstetrics, orthopedic, ICU. See, for example, Jones, Rod, "Hospital Bed Occupancy Demystified," *British Journal of Healthcare Management,* (2011), Vol. 17, no 6:242-248.

than its current rate of utilization, and the commensurate number of excess beds. My analysis showed that there are over 1,485 additional beds that are "excess" even at 75% capacity utilization. This represents approximately 11% of total bed capacity in the area. This suggests that sufficient capacity exists within WPA such that considerable consolidation or re-alignment of patient admissions could occur.

Excess capacity in the delivery of healthcare has potential adverse consumer welfare effects in terms of higher costs relative to circumstances where capacity is closer to demand. The healthcare industry is widely recognized as having excess and inefficiently aligned capacity. Uncertain and changing demand and suboptimal volumes in service lines with substantial available capacity result in higher costs and in some cases, medical arms races to attract needed patient volumes. Re-alignment of capacity and services, including shutting down or re-purposing excess beds and excess capacity in individual service lines is difficult to accomplish by individual providers. Acquisitions and affiliations among providers present unique opportunities to re-align and rationalize capacity and services.[250]

As Highmark presently contemplates the Affiliation, it has not identified any excess capacity within WPAHS for rationalization or removal. Rather, Highmark and WPAHS management jointly promoted reopening West Penn's ER services to increase the volume of inpatient discharges at WPAHS. Overall inpatient volumes in the southwestern PA area have been flat or declining. Diversions from other hospitals to WPAHS have the potential to increase WPAHS's operating efficiency, but also could reduce the operating efficiency of other competing facilities. If Highmark is successful in attracting over 30,000 additional inpatients per year away from UPMC and other area hospitals to WPAHS by FY16, it will substantially reduce WPAHS's excess capacity, with potentially offsetting increases in excess capacity at UPMC and other area hospitals. This could have a significant impact on the operations of these competing hospitals, particularly community hospitals where the occupancy rates are already well below potentially acceptable levels. The net effect would depend on a number of factors. It is almost certain that

[250] I note that not all mergers between hospitals result in realized opportunities to re-align and rationalize capacity. Dranove and Lindrooth (2003) distinguish between a merger of hospitals (clinical consolidation of operations, single license, single set of financial and utilization statistics) and a system acquisition (independent hospitals operating under common ownership). The authors found that a merger will lead to larger and consistent cost savings over time. According to this one study, system acquisitions was not found to lead to statistically significant lower costs 3 to 4 years post-acquisition, although these acquisitions appear to result in lower costs in the two-year post-acquisition period.

these hospitals would mount some type of defensive strategies to retain these valuable inpatient volumes. Highmark, however, does not incorporate into its projections the response of other hospitals to Highmark's diversion strategy. Absent some means to take excess capacity out of the marketplace or efficiently re-align in the face of these patient shifts, the potential exists that the community could face higher rather than lower costs.[251]

Highmark's contract with UPMC increases the uncertainty of Highmark achieving its projected results since it is dependent on shifting volume away from UPMC. The contract dampens Highmark's incentive and ability to re-align more of its network products toward WPAHS and/or other community hospitals and away from UPMC, particularly where there is some likelihood that the contract will continue beyond 2015.[252] Similarly, a renewed contract with UPMC provides Highmark the ability to offer to its members an all-inclusive network that is competitive with those of other insurers.

The uncertainty about potential outcomes, e.g., whether Highmark will successfully attract volume away from UPMC toward WPAHS, as well as towards other community hospitals, suggests that the PID should consider providing sufficient flexibility in its decision to permit Highmark to reassess its capacity needs once Highmark has had sufficient experience to determine the likely success of its WPAHS inpatient diversion strategy and network re-alignment.

Continuous innovation and learning to improve value: Highmark has provided little specific information on planned efforts to enhance continuous innovation and learning to improve value. Captured under this element of success are efforts, such as frequent training and development of employees to lead, frequent testing of strategic activities through pilot programs, efforts to empower staff to innovate, and employing evidence-based practices.[253] Providing care

[251] I note that higher costs due to excess and mis-aligned capacity may be inevitable in WPA. UPE bases its IDN value on its ability to attract patients to lower cost, more appropriate settings of care. If successful, this will result in some lower cost hospitals gaining discharges while other higher cost hospitals lose discharges. Overall, UPE expects overall discharges to decline about [redacted] under the right setting of care strategy. Excess capacity due to lower discharges leads to higher costs unless hospitals take steps to appropriately align capacity with changing demand for its services.

[252] Highmark has the ability to use Community Blue to market WPAHS and a narrower network that excludes UPMC to consumers and is doing so at significant discount to its PPO and other products. The current UPMC/Highmark contract, however, precludes Highmark from offering any additional consumer choice initiative products, such as ones with tiering or steering mechanisms.

[253] NHPPI at 9.

coordinators and HIE data reports as part of the initial participation in Highmark's ACA program are vital steps in this direction as is making other clinical resources available to participants. It would be incumbent upon Highmark to lay out its plans on innovation and learning more specifically.

My assessment of the likely success of Highmark's proposed IDN, as presently contemplated, is that it has the overall elements that have proven to be successful in other implemented IDNs. The critical driver of success, however, rests with Highmark constructing the necessary economic incentives to change the behavior of physicians to provide coordinated care at the most cost effective service location, and, to construct the necessary economic incentives to get insured members to accept fewer provider choices in return for more cost effective, quality-delivered healthcare.

Changing behavior, particularly in healthcare where price and costs are not readily transparent is difficult. Highmark's goal to have 75 percent of its insured members attributed to an ACA physician and to shift over 30,000 inpatients away from UPMC to WPAHS hospitals by FY2016 relies on unfounded assumptions and is unreasonable in view of the economic evidence. If Highmark shows initial success in obtaining physician buy-in to the ACA and member adoption of Community Blue, Highmark is likely to face a competitive response by other insurers, particularly UPMC, to counter Highmark's success. This may require Highmark to "sweeten the deal" for both its ACA pay-for-value physician compensation and its Community Blue health plan, to meet its goals or to settle for lower rates of adoption. Either way, the cost of the IDN would be higher and return on investment would be lower than currently projected.

In addition, the overall success of UPE's proposed IDN rests with the assumption that UPMC and Highmark would not extend their present contract beyond 2014 and UPMC would become a more expensive out-of-network option for Highmark policyholders. Although this assumption may prove true, it is not unreasonable to consider that Highmark and UPMC will reach an agreement on a provider contract. Several reasons support the likelihood of a contract: (1) Highmark indicates that a post-2014 contract with UPMC is a top priority for Highmark and is working to procure a contract extension, (2) Highmark successfully lobbied the Commonwealth to intercede in negotiating an agreement with UPMC in 2012, and (3) public sentiment in WPA supports a Highmark/UPMC contract. For these reasons, I evaluate in Section V.E.3 Highmark

having a provider contract with UPMC on Highmark's projected IDN cost savings and on Grant Thornton's incremental volume discharges at WPAHS.

C. CHANGING HEALTHCARE CONSUMPTION AND PROVIDER BEHAVIOR

UPE's IDN savings depend critically on the ability of Highmark to implement the various programs described above to fundamentally change the way that physicians practice and deliver healthcare, and to change employers/patients' consumption of healthcare services. Effectively, UPE's IDN plan is to deliver high quality healthcare at lower costs resulting from three primary sources – changes in physician reimbursement rates, changes in the quantity of healthcare provided, and changes in the delivery location of that healthcare. This requires that Highmark provide effective incentives to change the behavior of both Highmark insured members and healthcare providers to choose and deliver, respectively, more cost effective health care.

1. INCENTIVES DIRECTED AT POLICYHOLDERS/SUBSCRIBERS TO ADOPT UPE'S IDN AND SHIFT INPATIENT DISCHARGES TO WPAHS

As part of its IDN strategy, Highmark must incentivize policyholders/subscribers to adopt its IDN and choose to obtain inpatient services at WPAHS hospitals. As part of Grant Thornton analysis of WPAHS, Highmark identified Community Blue and an ACA as a means to achieve this objective.[254] Highmark describes Community Blue as a narrow network product which (1) is not designed to be offered in all geographies, (2) offers innovative or aggressive reimbursement,

[254] "Supplemented Overview of Highmark's Strategic Vision," Addendum No. 5 to Amendment No. 2 to Form A, Tab E at 5-6 and also Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Grant Thornton, "Updated West Penn Allegheny Health Systems (WPAHS)," January 2013. Highmark's Response to Information Request 4.2.14 from the PID at 2-3 discusses Community. Additionally, in its response to Request 4.2.14, Highmark describes another product, Choice Blue, which it notified the Bureau of Managed Care of the Pennsylvania Department of Health in January 2012. Highmark describes this product as giving "customers flexible coverage at a reduced cost by encouraging members to use lower cost, high-quality care providers." [redacted]. Highmark is testing this product in the Erie, Crawford, and Warren counties of Pennsylvania. Highmark has not cited to this product as part of its IDN strategy and it is not included in the Grant Thornton analysis of WPAHS. Highmark Confidential Response to Information Request 4.2.14 from the PID, Letter from Nancy M. Scalise, Deputy General Counsel, Highmark Inc., to William Weigman, Director,, Division of Certification, Bureau of Managed Care, Pennsylvania Department of Health, January 30, 2012.

(3) has possible gain sharing or ultimately risk sharing, (4) has no competing IDN providers, unless geographically or specialty needed, and (5) focusses on cost conscious clients, small groups, and individual/reform markets.[255] With a narrow network product, such as Community Blue, a member agrees to accept more limited access to hospitals and providers than would be offered with a broader network product in exchange for a lower price. Highmark has determined that a price differential of about [redacted] is sufficient to incentivize its policyholders/subscribers to agree to a narrower network.[256] According to Highmark, "[t]he product provides customers/subscribers the highest level of benefits only when getting care from providers within the select network of providers."[257] The purpose of this narrow network product is to drive volume to aligned providers, such as WPAHS hospitals, medical malls and other ambulatory efforts, and align pay for value. Efficiencies would materialize through utilization, limited referral "leakage", and cost reductions. Community Blue members primarily would be treated by providers participating in Highmark's ACA, which compensates providers through Pay-for-Value or Pay-for-Performance compensation models.[258]

2. INCENTIVES TO ENCOURAGE AFFILIATED PHYSICIANS TO ADOPT PAY-FOR-VALUE COMPENSATION

Highmark's ACA initiative, which underlies its IDN strategy, compensates participating physicians by tying compensation to the value of the healthcare provided to patients. Highmark-

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[255] Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012983.

[256] Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012984. See also Response to PID Information Request 2.1.3 from the Pennsylvania Insurance Department, UPE-0010392. The literature is generally supportive of the concept that 20% differentials in premiums can be sufficient to attract consumers to HDHP and that these plans can achieve cost savings. HDHP is increasing in the US as a percentage of health plan choices (AHA Trend Watch) and are beginning to provide empirical evidence of significant savings. See, for example, See, e.g., American Hospital Association, Trends Affecting Hospitals and Health Systems, AHA TrendWatch Chartbook, 2012; Buntin, et al., "Consumer-Directed Health Care: Early Evidence About Effects On Cost And Quality," *Health Affairs*, (2006), Vol. 25, No.6; Buntin, et al., "Healthcare Spending and Preventive Care in High-Deductible and Consumer-Directed Health Plans," *Am J Managed Care*, (2011), Vol. 17, No. 3; Claxton, G., et al., "Employer Health Benefits 2011 Annual Survey," *The Kaiser Family Foundation*, September 27, 2011; Pipes, Sally, "How High Deductible Plans Lead To Low Healthcare Spending," *Forbes*, May 28, 2011; and Sinaiko, Anna D, "How Do Quality Information and Cost Affect Patient Choice of Provider in a Tiered Network Setting? Results from a Survey," *Health Services Research*, (2011), Vol. 46, No. 2.

[257] Highmark Confidential Response to Information Request 4.2.14 from the PID at UPE-0005196.

[258] Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012984. Highmark Confidential Response to Information Request 4.2.14 from the PID, at UPE-0005197.

employed Primary Care Physicians ("PCPs") participating in its Quality Blue compensation program will move to the ACA pay-for-value program.[259] Highmark is actively marketing the ACA to independent PCPs. I understand that physicians who choose not to participate in the ACA may remain in Highmark's network under Highmark's Quality Blue program.[260] In rolling out its IDN and ACA model, Highmark is inviting four types of healthcare providers to participate: (1) WPAHS, (2) independent IDSs, (3) independent PCPs, and (4) independent specialists. Independent IDSs include Excela, Heritage Valley, St. Clair, Jefferson, Washington, and Butler.[261]

The ACA model will provide greater PCP reimbursements by increasing fees paid on Evaluation & Management ("E&M") claims. Highmark will provide quality, costs per utilization, and care alignment performance metrics to physicians as feedback on each facility's progress in achieving stated performance goals. Physicians will receive additional compensation for attaining PCMH accreditation. The model also requires increased care alignment and coordination among physicians within the ACA. In addition, the ACA requires participants to achieve meaningful use and increased focus on and participation in HIEs. Participating physicians will be evaluated based on three criteria: [redacted] Under this program, physicians have the ability to increase reimbursement per-member per-month ("PMPM") [redacted] over levels available under the Quality Blue program.

Facilities and physicians will receive detailed quality measurement assessment reports showing quality performance measures, such as prevention, pediatric and adult well care, chronic condition care, and geriatric care, against benchmarks. Highmark will score facilities and physicians on a [redacted]

[259] Highmark's Quality Blue hospital program originated in 2002. As of late 2012, the program included 91 hospitals in Pennsylvania and West Virginia and about 4,600 physicians serving 1.7 million members. Highmark Nov. 7, 2012 Press Release, "Highmark's Quality Blue Hospital and Physician Program continues efforts to improve the quality of care and reduce health care costs."

[260] "Quality Blue, Accountable Care Alliance, ACME PCP Pitch Pack, August 13, 2012." See also Highmark Supplemental Response to PID Information Request 4.6.7.1 from the Pennsylvania Insurance Department.

[261] As of March 2013, Highmark had affiliated with JRMC and plans to affiliate with Saint Vincent, which is a hospital located in Erie, PA, outside the Pittsburgh area.

[redacted]

The ACA will provide participants with a care coordinator for a period, providing access to Highmark medical doctors, clinical quality consultants, pharmacy consultants, and informatics and analytics staff. In addition, the care coordinator will assist the participant with health promotions, disease management and case management programs. The ACA will share population management dashboards with participants to promote identification of high utilization patients, high-risk patients, population-wide cost and utilization analyses, and prescribed drug and date data for patients to assist in tracking patient's care.

D. HIGHMARK'S AFFILIATION WITH WPAHS AS THE CORE COMPONENT OF ITS IDN

Achieving Highmark's projected cost savings depends on Highmark's ability to manage providers and change policyholder/subscribers' utilization of healthcare, including incentivizing members to choose a hospital within the IDN. Reducing inpatient volumes at higher cost hospital services is paramount. To do this, Highmark asserts that it needs to acquire WPAHS in order to align WPAHS incentives with Highmark's incentives to achieve high quality, lower cost healthcare in southwestern Pennsylvania. Highmark has the incentive to keep WPAHS as a viable competitive alternative to UPMC and as an important component of its IDN strategy to reduce healthcare costs for its members both through transitioning more to WPAHS and also by competing against UPMC and seeking lower rates from it. Likewise, WPAHS has the incentive to participate in the Highmark network, which has a substantial share of commercial policyholders/subscribers in WPA and controls a substantial share of WPAHS's commercial and Medicare Advantage reimbursements. Nonetheless, Highmark and WPAHS's incentives are not perfectly aligned in that Highmark negotiates to buy provider services from WPAHS as well as

WPAHS's rivals, and WPAHS sells provider services to Highmark as well as to Highmark's rivals, which places WPAHS and Highmark at opposite ends of contract negotiations. In addition, without further affiliation, any unencumbered investment that Highmark makes in WPAHS's operations also has spillover benefits to subscribers of Highmark's rivals using WPAHS.

Highmark's strategy would create a viable WPAHS hospital system that will incentivize providers and patients to choose WPAHS, presumably at lower cost and comparable quality for full range of services, instead of UPMC or other hospitals. Highmark recognizes that physicians play a central role in determining the care patients receive and where that care is delivered. Highmark refers to its IDN as a virtual network in which providers can fully participate without formal integration.[262] Highmark's WPAHS "diversion" strategy includes realigning physicians' incentives, both employed and affiliated, with Highmark's incentives to reinvigorate WPAHS by attracting more patients from other, higher cost facilities, and deliver the IDN benefits Highmark projects.

The expected direct benefits of the IDN derive largely from projected increased discharges at WPAHS and attendant reduced costs of care by more fully utilizing WPAHS's lower cost of delivering healthcare to Highmark's members. Highmark projects that these additional discharges will generate a significant amount of incremental inpatient net reimbursements for WPAHS hospitals. These additional discharges would increase inpatient revenues to $773 million in FY13, $872 million in FY14, $1.045 billion in FY15, $1.183 billion in FY16, and $1.234 billion in FY17.[263]

According to Grant Thornton's projections, Highmark's strategy to attract inpatients to WPAHS

[262] "Supplemented Overview of Highmark's Strategic Vision," Addendum No. 5 to Amendment No. 2 to Form A, Tab E at 22.

[263] Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Exhibit K, Grant Thornton, "Updated Projections: West Penn Allegheny Health Systems," January 2013. WPAHS inpatient volume gains are based on an analysis performed by the Grant Thornton accounting consultancy with assistance from Highmark's internal actuaries. Highmark provided Compass Lexecon with confidential access to the underlying assumptions on which these estimates are based. I am able, to a degree, to assess the validity or robustness of these projections and provide my views on the likelihood that UPE's IDN strategy will produce the estimated incremental inpatient volumes that it estimates are required to restore WPAHS as a viable provider of healthcare services to the WPA community. I review these projections in the broader context of the information Highmark has provided on its IDN source of value and ACA physician compensation model, particularly regarding the sufficiency of quality and scope to cause providers and patients to choose WPAHS rather than UPMC or other hospital providers.

hospitals will result in improved financial conditions for WPAHS hospitals. Specifically, it will enable Allegheny General and Allegheny Valley Hospitals to achieve a positive operating income by FY13. Forbes Regional and Canonsburg would continue to operate in the red until FY14. West Penn Hospital would achieve a positive operating income by FY15, at which time the consolidated hospital system would be achieving sufficiently positive operating income to [redacted] and achieve a positive operating income for the overall consolidated WPAHS operations. [264]

Table 18 summarizes Highmark's projected diversion of inpatient discharges to WPAHS resulting from its IDN/WPAHS affiliation strategy, taking into consideration certain market factors or conditions. I provide a brief description of each source of projected shifted discharges below.[265]

Table 18

Highmark's Projected WPAHS Discharges From Patient Volume Shifting Initiatives

	Inpatient Discharges					
	FY12E	FY13P	FY14P	FY15P	FY16P	FY17P
Baseline Volume in FY12	56,644	[redacted]				
UPMC East Opening						
Physician Alignment						
Employed Physician Out-of-System Referral Practices						
New Highmark Products (Community Blue and ACO)						
Physician Organization						
IDN and Declining Population						
West Penn Reopening						
Expiration of the Existing UPMC Contract						
Adjustment to Actual						
Total Inpatient Volume	57,455	58,928	68,274	80,297	88,304	89,624
Incremental Change in Discharges from FY12 Actua	811	1,473	10,819	22,842	30,849	32,169
Net Inpatient Service Revenues ($000s)	**$733,291**	**$772,722**	**$872,219**	**$1,044,461**	**$1,183,276**	**$1,233,851**

Note: GT did not provide specific adjustments in the updated projections. Numbers in orange have not updated to reflect new projections. Based on Grant Thornton, "Updated Projections: West Penn Alleghany Health System (WPAHS), January 16, 2013, Highmark's Second Amended Form A at Tab 8, Exhibit K.

Highmark projects UPMC will be the primary source of WPAHS's incremental discharges.

[264] Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Exhibit K, Grant Thornton, "Updated Projections: West Penn Allegheny Health Systems," January 2013.

[265] The following discussion describes Grant Thornton' s projections for revitalizing WPAHS's discharges and financial condition as reported in Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Exhibit K, Grant Thornton, "Updated Projections: West Penn Allegheny Health Systems," January 2013. Unless stated otherwise, this document is the source for all projections and data cited.

Table 19 below shows the breakout of WPAHS's gains from UPMC compared with other sources, including community hospitals. Across all incremental discharge initiatives, Highmark projects that [redacted] of the net inflow to WPAHS will come out of UPMC hospitals. For some initiatives, the percentage gains will be even greater.

Table 19

Source of WPAHS's Incremental Volume Projected by Grant Thorton

	Discharges (1)	UPMC Discharges	% of Total	Non-UPMC Hospital Discharges	% of Total	Organic Discharges	% of Total
Highmark Enrollee Discharges at UPMC (2011)							
Adjustment to Enrollee Discharges (2)							
Highmark's Share of WPAHS loss to UPMC East Opening							
Highmark's Share of Physician Alignment							
Highmark's Share of WPAHS Physician Referrals Out-of-System							
Highmark's Share of WestPenn Re-opening							
Highmark's Share of New Products							
Adjusted Baseline Highmark Enrollee Discharges at UPMC							
Source of WPAHS Incremental Discharges							
UPMC East Opening							
Physician Alignment							
Employed Physician Out-of-System Referral Practices							
New Highmark Products (Community Blue and ACO)							
Physician Organization							
IDN and Declining Population							
West Penn Reopening							
Expiration of the Existing UPMC Contract							
Total Inpatient Volume							
Net Incremental Change in Discharges from FY12 Base	32,169						
Source Share of Discharges							
Increase in Discharges	41,015						
Percent of UPMC Adjusted Discharge Base							
Increase in Discharges as % of UPMC Adjusted Discharge Base							
Gains to Community Hospitals from Highmark's Efforts							
Expiration of the Existing UPMC Contract							
Net Effect on Non-UPMC Hospitals from IDN and Losses to WPAHS				1,953			

Notes:
(1) Based on details provided in Harris Supplement 6 and Amendment 2 to Confidential Supplement to Form A, Exhibit K. The values shown
(2) Source of WPAHS incremental discharges includes Highmark and other payor discharges. Adjustments reflect Highmark's enrollee share

In terms of net incremental change in discharges at WPAHS by FY17, Highmark and Grant Thornton project that over [redacted] would be discharges that would have gone to UPMC.[266]

UPMC East Hospital Opening: UPMC opened a new acute care hospital close to WPAHS's Forbes Regional Hospital. Highmark projects this new hospital will shift [redacted] inpatients in

[266] Dr. Harris calculates the percentage as [redacted] based on gains from UPMC rather than the net incremental discharges. Harris Supplement 6 at ¶ 35.

FY13 and [redacted] inpatients each year thereafter through FY17, from WPAHS hospitals, primarily Forbes.

The loss of volume at Forbes to the competing UPMC East requires that Highmark attract additional volume from UPMC and other hospitals to make up this volume loss either to Forbes or other WPAHS hospitals. Based on information provided by WPAHS, year-to-date June 30, 2012 discharges and patient days at Forbes was lower than the year before. The January 2013 Grant Thornton update reflected WPAHS discharge data through October 31, 2012 and reported that Forbes performed better than expected, incurring only about half of the expected losses from new UPMC East competition. In addition, Forbes is currently undergoing the process of certification as a Level 1 trauma hospital, which once it obtains certification, will drive additional volume at Forbes.[267] For this reason, Grant Thornton lowered its estimated loss to UPMC East accordingly. [redacted].[268] In my view, these data help to validate the assumption used by Grant Thornton for the effect of opening UPMC East on discharges at WPAHS.

As I understand Highmark's WPAHS turnaround investment strategy, Highmark's competitive response to the opening of UPMC East is to restore Forbes competitive edge by upgrading Forbes's entry façade, attaining a Level I trauma designation, purchasing interest in Premier Medical Associates [redacted].[269] Forbes would serve as the anchor hospital for the IDN in the eastern portion of the service area.[270] WPAHS also envisioned establishing a trauma program and growing specialty services at Forbes as part of the Highmark Affiliation.[271] It is my understanding that Grant Thornton did not incorporate these latter enhanced Forbes service lines in its analysis of projected lost volume to UPMC East, and in my view, it would be difficult to do so. These estimated losses are net of undertaking the current planned efforts to retain inpatient

[267] Discussions with Grant Thornton on January 11, 2013. Additional volume from Level 1 certification is not explicitly incorporated into the Grant Thornton model.
[268] Harris Supplement 6 at ¶ 6.
[269] Highmark Corporate Strategy Planning at HMK-DOJ-001423.
[270] WPAHS Response to 3.5, "Collaborative Design Session Introduction, Highmark/WPAHS Strategic Advance," August 17-18, 2011, WPAHS-005743-920 at WPAHS-005765.
[271] "West Penn Allegheny Health System, Rating Agency Presentation, November 2011, WPAHS-006221.

volume at Forbes.

Physician Alignment: UPE's IDN strategy is to develop relationships or affiliations with approximately [redacted] physicians. The timing of these new affiliations is [redacted] new physicians in each of FY14 and FY15. Highmark projected [redacted] new affiliated physicians in FY13, [redacted] Highmark uses an estimated average incremental annual discharge per employed physician, along with a ramp up period (25% in Year 1, 75% in Year 2, and 100% in Year 3) for physicians to refer an estimate portion of their inpatients to WPAHS hospitals, to derive an additional 12,887 WPAHS inpatient discharges by FY17.

Highmark provided the PID with details on the ACA and physician compensation mechanisms that it will use to modify physician referral behavior to attract referrals from other hospitals to WPAHS hospitals. I describe these mechanisms elsewhere in this Report. The PID did not receive detailed data on WPAHS-employed referrals to non-WPAHS hospitals, although I understand from discussions with Highmark and its consultants that Highmark and Grant Thornton used these details to estimate potential patient shifting.[272] Specifically, in its July 2012 and January 2013 projections, Grant Thornton examined the current referral patterns from PHC4 2011 inpatient admissions data for [redacted] physicians being recruited by Highmark. It extrapolated these referral patterns to [redacted] projected affiliated physicians to derive fiscal year inpatient admissions. Grant Thornton calculates that the [redacted] admitted on average [redacted] inpatients per year to WPAHS after adjusting for patients enrolled in UPMC Health Plan and patients that would continue services at other facilities. This results in the estimated [redacted] inpatient admissions by FY17 when applied to the expected [redacted] recruited Highmark physicians.[273]

Using this extrapolation methodology, however, results in flawed projections, as Dr. Harris correctly points out in Harris Supplement 6. Predicting referral patterns for other non-identified physicians depends on the type of practice the physician has, the physician's specialty, the

[272] Highmark's claims data provided information on patient referrals. These data link to WPAHS employed and with other physicians Highmark intends to solicit for its IDN network.

[273] Confidential Supplement Amendment Form A, Tab 8, Grant Thornton, "West Penn Allegheny Health Systems (WPAHS)," July 2012 and subsequent discussions with Grant Thornton and Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Exhibit K, "Updated Projections: West Penn Allegheny Health Systems," January 2013. The numbers generated in July 2012 and January 2013 are identical for FY14 through FY17.

geographic location of the physician practice and its patient base, and which physicians Highmark ultimately recruits.[274] It is doubtful that the referral patterns of the [redacted] known physicians accurately mimic the referral patterns of [redacted] unknown physicians. Dr. Harris applies a different methodology to estimate the likely source of the 12,887 additional admissions to WPAHS by FY17. In addition, using patient discharge data by zip code, Dr. Harris observes patients' choice of hospitals by zip code, located within WPAHS's 90% draw area. Dr. Harris uses these data to predict the hospital source for the additional admissions at WPAHS.[275]

Dr. Harris also estimates a different average number of admissions per physician. In the PCH4 data, he identifies [redacted] physicians among the [redacted] with large numbers of inpatient admissions at a specific hospital. All other physicians report one or two patients for a specific hospital. Considering the [redacted] physicians to be outliers, he excludes the top and bottom 2.5% of the inpatient admissions per physician, which lowers the average inpatient admissions from [redacted] to [redacted].[276] This lowers the projected increase to 11,249 inpatient admissions captured by WPAHS.

The hospital source of WPAHS's incremental admissions varies significantly when comparing the estimates generated by the Grant Thornton and Dr. Harris methodologies. I show a comparison of these estimates in Table 20.

[274] Harris Supplement 6 at ¶ 11.
[275] Harris Supplement 6 at ¶¶ 13-15 and at Appendix 2.
[276] Harris Supplement 6 at ¶ 3 and at Appendix 3.

Table 20

Projected Source of FY2017 WPAHS Admissions

	Grant Thornton		Harris Using 12,887 Incremental Admissions	Harris With 11,240 Incremental
Total	***100.0%***	***12,887***	***12,887***	***11,249***
UPMC				
Butler				
St. Clair				
Excela Westmoreland				
HV Sewickley				
Excela Latrobe				
Uniontown				
Washington				
Jefferson				
HV Beaver				
Jameson				
Conemaugh				
Monegahela				
ACHM				
Other hospitals				
Within29 county area				
Outside 29 county area				

The difference between Grant Thornton and Dr. Harris's estimated admissions attracted to WPAHS through physician alignment is about [redacted] of Grant Thornton's projected FY17 total admissions. Of more import are the differences associated with the *source*s of these incremental admissions. For example, Harris projects [redacted] admissions would come from [redacted] whereas Grant Thornton's methodology predicts [redacted] admissions from the same hospital, which highlights the lack of certainty associated with these projections. In 2011, [redacted] occupancy rate was [redacted] one of the highest for community hospitals in the 29-county area. In addition, Grant Thornton's methodology only predicts potential diversion from eight hospitals whereas Dr. Harris's methodology indicates a wider effect, and in most cases, a more significant number of diversions from other hospitals. Dr. Harris opines that an additional [redacted] admissions to community hospitals from Community Blue would offset referrals out of these community hospitals to WPAHS from physician alignment.

To the extent that community hospitals benefit from referrals presently made by these physicians, diversion of these referrals to WPAHS hospitals will have a negative effect on the revenue stream of these community hospitals. Likewise, any loss of referrals by these physicians to UPMC will negatively affect UPMC as well. It is likely that UPMC and any affected community hospital will respond affirmatively to mitigate any material loss of inpatients. I emphasize that any "negative" effects as reflected in reduced admissions are not competitive or anticompetitive effects, but the result of diversion of patients (and hence revenues) to lower cost or higher quality care. These effects expectedly would occur in a competitive marketplace with health plans competing with limited or tiered networks, or competing more generally.

The primary limitation of the Grant Thornton analysis with respect to physician alignment and other sources of additional WPAHS discharges, is that the analysis is static, i.e., it does not incorporate a likely response by competing hospitals, such as UPMC, into the projections. It is not economically rational to effectively ignore an almost certain response by UPMC and other community hospitals to aggressively mitigate losses to WPAHS and that this response would offset at least some portion of projected inpatient gains by WPAHS. It is my opinion that Highmark's projections likely overstate the volume of inpatient gains at WPAHS from physician alignment, although the magnitude of this overstatement is not discernible.

Employed Physician Out-of-System Referral Practices: WPAHS does not require its employed physicians to refer inpatients to WPAHS hospitals. Grant Thornton reports that approximately [redacted] of WPAHS's employed physicians refer inpatients to hospitals outside of the WPAHS system.[277] It believes that a reinvigorated WPAHS will cause employed physicians to change their referral patterns and reduce the number of out-of-system referrals to [redacted] in FY13, [redacted] in FY14, [redacted] in FY15 and [redacted] thereafter.[278] It projects that by FY17, this change in referral behavior will result in an additional [redacted] discharges to WPAHS hospitals. Grant Thornton projects that [redacted] [majority] of these referrals will be captured from UPMC with the remainder from other area hospitals by FY15.

[277] Amendment No. 2 to Confidential Supplement Submitted With Form A, Tab 8, Exhibit K, Grant Thornton, "Updated West Penn Allegheny Health Systems (WPAHS)" January 2013 and discussions with Grant Thornton.

[278] Grant Thornton's January 2013 projections incorporate a slower rate to modify physician behavior to refer patients in-system rather than to hospitals outside of WPAHS. This reduction reflects, in part, the delay in consummating the Transaction.

Dr. Harris appears to accept the overall estimate of shifting WPAHS employed physicians' referrals from out-of-system to in-system.[279] However, Dr. Harris disagrees with the methodology for determining which community hospitals will bear the consequence of altering these referral patterns. Based on the July 2012 Grant Thornton analysis, Dr. Harris examines the outflow pattern of WPAHS physician referrals using Highmark's 2011 inpatient data for WPAHS-employed physician. Dr. Harris calculates that almost half of the outflow to non-WPAHS hospitals is to UPMC. Using this to allocate the impact to non-WPAHS hospitals, Dr. Harris estimates that WPAHS would capture [redacted] admissions from UPMC, with the remaining [redacted] admissions captured from other area hospitals. Table 21 summarizes the different effects by hospital under each methodology.

Table 21

Estimated Effect of Altering WPAHS-Employed Physician Out-of-System Referrals

	Number of Admissions Lost to WPAHS	
	GT Estimate	Harris Estimate
Total	***5,642***	***5,640***
UPMC	[redacted]	
Butler		
St. Clair		
Excela Westmoreland		
HV Sewickley		
Excela Latrobe		
Uniontown		
Washington		
Other		

[279] Although Dr. Harris based his analysis on the July 2012 Grant Thornton projections, his criticisms remain valid since the methodology used by Grant Thornton in the January 2013 projections is essentially the same as July 2012.

With the Harris methodology, community hospitals bear a larger burden of the effect of incentivizing WPAHS-employed physicians to refer more admissions to WPAHS hospitals.[280] As with physician alignment, these differences highlight the uncertainty that exists in predicting the effect on individual community hospitals of modifying physician behavior.

It may be easier for hospitals and insurers to change the behavior of employed physicians than the behavior of independent physicians because of a hospital/insurer's ability to set up incentives and methodologies or investments to induce or modify behavior. Highmark provided details on the mechanisms that it would use to alter "aligned" physician referral behavior to attract referrals to WPAHS hospitals. These mechanisms consist of both compensation incentives and resources available to physicians to assist in delivering healthcare more effectively. In my view, Highmark's strategy incorporates learning from the experience of others in forming PCMHs and ACAs. That said, Highmark's strategy depends on physicians adopting the ACA program and adhering to its objectives. The Highmark program contractually commits non-employed physicians to align with the program, which should increase adherence to the program's objectives.

Highmark has not addressed how these incremental inpatient volumes may affect non-WPAHS hospitals, i.e., community hospitals and UPMC, used by these physicians. As above, to the extent that community hospitals benefit from referrals presently made by these physicians, diversion of these referrals to WPAHS hospitals will have a negative effect on the revenue stream of these community hospitals. Likewise, any loss of referrals by these physicians to UPMC will negatively affect UPMC as well. It is likely that UPMC and any affected community hospital will respond aggressively to mitigate any material loss of inpatients.

As I indicated earlier, Highmark and its consultant, Grant Thornton, do not incorporate any dynamic response by competing hospitals to the loss of volume likely at their respective hospitals from UPE's IDN/WPAHS strategy. I find this to be a severe limitation on the robustness of the projections set forth by Highmark. I do not find it credible to implicitly assume

[280] Dr. Harris did not provide data showing incremental admissions from hospitals other than those listed in the table above. Also, Dr. Harris did not update his analysis based on the updated Grant Thornton projections. I do not find this to be a limitation since I only use Dr. Harris's analysis to illustrate the great uncertainty in predicting the impact on individual community hospitals from implementing Highmark's strategy to increase discharges at WPAHS. The uncertainty remains with the updated Grant Thornton projections.

that other competing hospitals, particularly UPMC, would not take immediate and decisive actions to mitigate the loss of a significant volume of patients to WPAHS. For this reason, at this time, I recommend that the PID consider this to be a serious limitation on the robustness and credibility of the WPAHS volume and financial projections provided by Highmark and Grant Thornton.

New Highmark Products (Community Blue and Accountable Care Alliance): Highmark launched its revised Community Blue product in Fall 2012 and its Accountable Care Alliance in July 2012. As of January 2013, Community Blue had approximately [redacted] enrollees of which [redacted] are WPAHS- or Highmark-affiliated.[281] Highmark provided details on the attributes of the Community Blue and ACA products, which incentivize policyholder/subscribers to purchase the Community Blue product and to incentivize physicians to contract with Highmark's ACA. Highmark expects to make some changes to the Community Blue product before the Summer 2013 open enrollment season. These changes include increasing the discount relative to other plans for smaller policy groups and removing some of the restrictions on packaging Community Blue as part of a menu of health plans offered to a customer's employees. Highmark expects these changes will further increase the competitiveness of Community Blue.[282]

Highmark projects that the Community Blue product and ACA will result in an additional 6,647 inpatient discharges at WPAHS hospitals by FY17.[283] These projections are significantly above the additional WPAHS discharges projected in July 2012 based on Highmark's revised view of its ability to drive subscriber adoption of these products.

From discussions with Highmark and responsive documents produced during the PID proceeding, Highmark is marketing the Community Blue product at a lower premium and price to patients to compensate the policyholder/subscriber for a narrower choice network, i.e., not

[281] Discussions with Highmark, February 7, 2013.
[282] Discussions with Highmark, February 7, 2013.
[283] In July 2012, Grant Thornton projected 186,000 commercial enrollees and 13,000 Medicare Advantage tiered product enrollees by FY2015. Based on Highmark actuary data, commercial enrollees generate approximately [redacted] inpatient admissions per 100,000 commercial enrollees. Although Community Blue enrollees would not be able to use UPMC facilities, a Community Blue enrollee could receive emergent care at a UPMC hospital. Grant Thornton assumes that all Medicare Advantage diversions would come from UPMC losses. Dr. Harris described these projections in Harris Supplement 6 at ¶¶ 19-25 based on the July 2012 Grant Thornton projections, but did not offer any independent assessment on the reasonableness of these estimates or update his assessment based on the January 2013 updated projections.

including UPMC hospitals in the Community Blue network, and to reflect lower costs as a result of limiting the network to lower cost providers.[284] This type of pricing strategy is common when offering narrower choice within a provider network.

Physician Organization: The Physician Organization that will be incorporated into UPE presently consists of approximately 550 employed physicians. WPAHS's physician group has increased by a net [redacted] physicians since June 30, 2012. Highmark does not include any further increases in its projections, but does see opportunities to improve the productivity of existing employed physicians, i.e., caring for a larger volume of patients. Highmark projects that this improved productivity will result in [redacted] more inpatient discharges per physician at WPAHS, increasing to an additional [redacted] inpatient admissions by FY16 and FY17.[285]

It is unclear how increasing the number of patients seen by physicians increases the number of inpatient hospital referrals. Highmark has not provided any documentation to support this cause and effect or these projections. The additional admissions to WPAHS are likely to have a negative impact on UPMC and other local community hospitals that would have captured these referrals.

IDN and Declining Population: A key feature of UPE's IDN strategy is changing physician and patient behavior to choose the right setting for treatment. In many cases, this would result in fewer inpatient discharges and greater use of outpatient facilities, such as ASCs, medical malls, and non-hospital labs and imaging centers. In addition, Highmark recognizes that WPA has a declining population that will result in fewer inpatient discharges. Together, Highmark projects that these two factors will result in [redacted] fewer inpatient discharges at WPAHS hospitals by FY17.[286]

Highmark projects that it will take approximately five years to build out its IDN. Based on

[284] Supplemental Response to May 3, 2012 Letter from the PID at UPE-0012984. See also Response to PID Information Request 2.1.3 from the Pennsylvania Insurance Department, UPE-0010392.

[285] The net effect of not adding new physicians beyond the [redacted] additional physicians employed in FY13 and a one-year delay in efforts to increase the productivity of physicians to generate discharges results in a [redacted] lower number of additional discharges by FY16 and FY17 than projected in July 2012.

[286] Amendment No. 2 to Confidential Supplement Submitted with Form A, Tab 8, Grant Thornton, "West Penn Allegheny Health Systems (WPAHS)," January 2013 and subsequent discussions with Grant Thornton. The [redacted] reduction in inpatient admissions declines in the Grant Thornton update because the baseline WPAHS discharges changes. As of the date of this Report, Grant Thornton has not provided the revised estimate.