May 2013

Indiana Health Information Exchange Medicare Health Care Quality Demonstration Performance Year Three Financial Results

Final Report

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RTI Project Number 0213516.001

INDIANA HEALTH INFORMATION EXCHANGE
MEDICARE HEALTH CARE QUALITY DEMONSTRATION
PERFORMANCE YEAR THREE FINANCIAL RESULTS

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CMS Contract No. HHSM-500-2012-00147G

May 2013

This project was funded by the Centers for Medicare & Medicaid Services under contract no. HHSM-500-2012-00147G. The statements contained in this report are solely those of the authors and do not necessarily reflect the views or policies of the Centers for Medicare & Medicaid Services. RTI assumes responsibility for the accuracy and completeness of the information contained in this report.

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EXECUTIVE SUMMARY

This report contains information regarding the Indiana Health Information Exchange's (IHIE's) financial results for the third performance year (PY3) of the Medicare Health Care Quality Demonstration (July 1, 2011–June 30, 2012). This report includes the following information regarding the financial reconciliation: (1) an overview of the intervention and comparison groups (IG and CG, respectively), (2) performance payment results for PY3, and (3) the savings calculation methodology. All calculations were performed according to the methods set forth in the IHIE Demonstration Protocols, Medicare Prescription Drug, Improvement, and Modernization Act (MMA) §646 Health Care Quality Demonstration (2009).

E.1 Performance Payment Results for the Third Performance Year

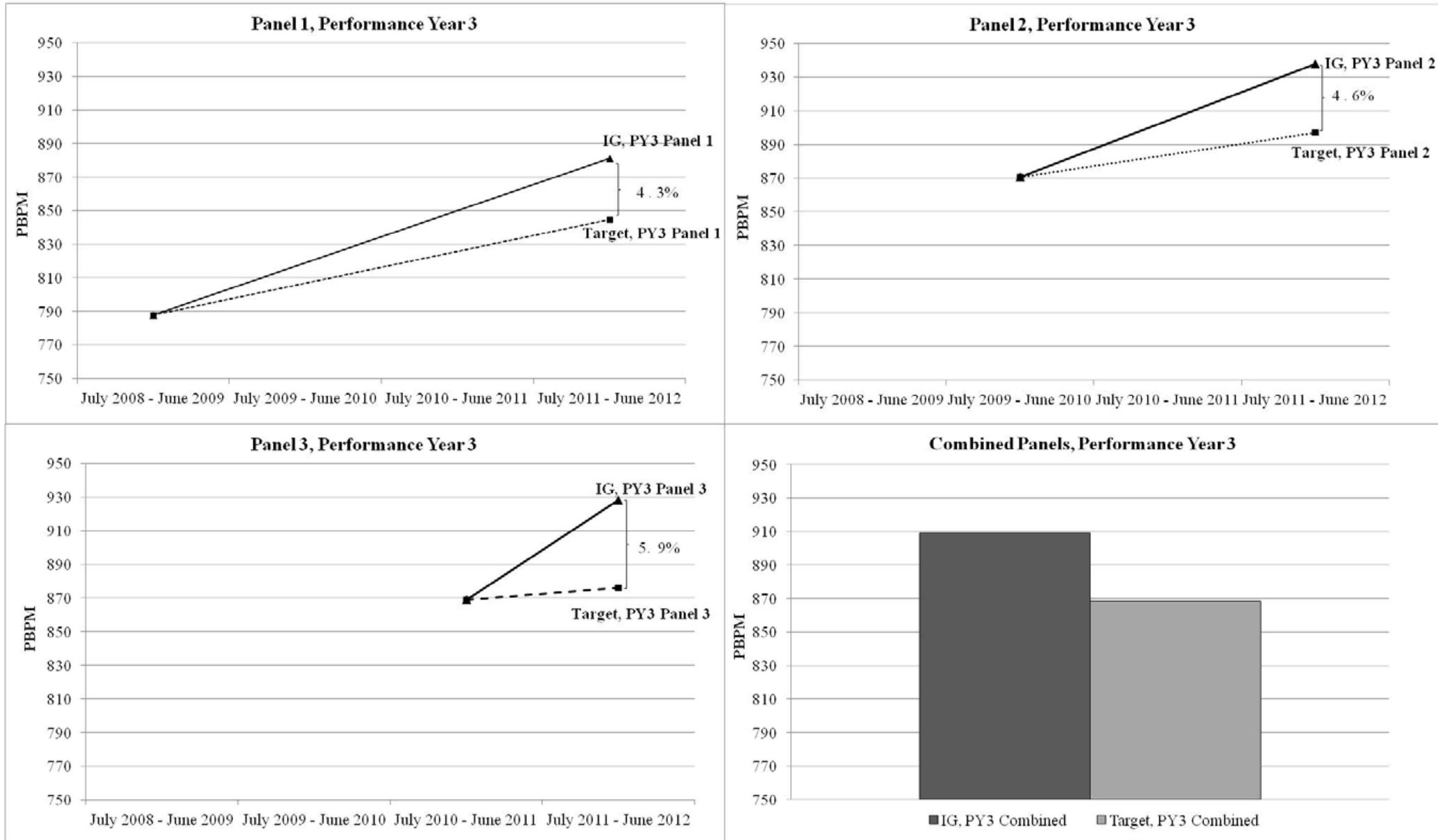
The PY3 financial reconciliation results are determined by blending the expenditure effects for the three separate physician panels. Overall trends in per beneficiary per month (PBPM) expenditures, standardized for baseline differences, are shown in **Figure E-1** for each panel's intervention group (IG) and target. Each panel is shown individually and the combined target and combined standardized expenditures are shown in the fourth graph in the figure. Standardized expenditures for all three panels were higher for the IG than the comparison-adjusted target. Panel 1 expenditures exceeded the target by 4.3% ($881.25; target of $844.79), panel 2 expenditures exceeded the target by 4.6% ($937.99; target of $897.03), and panel 3 expenditures exceeded the target by 5.9% ($928.19; target of $876.10).

The combined target and IG expenditures for PY3 are shown in the fourth graph in **Figure E-1**. After weighting by the number of months that beneficiaries contributed to each panel, the combined result for PY3 was 4.6% excess spending ($908.93 compared with a target of $868.55). The weights applied to the panels were 0.49 for panel 1, 0.37 for panel 2, and 0.14 for panel 3. Because there were no savings, IHIE did not receive any performance payments for PY3. IHIE would have needed to underspend the standardized target PBPM amount by 1.79% (the minimum savings rate) to qualify for performance payments during this PY.

E.2 Intervention Group Characteristics

Figure E-2 shows the distribution of physicians assigned to the IHIE panels in PY3 and their specialties. Primary care physicians were defined as physicians with specialties of family medicine, internal medicine, or general practice; physician assistants; nurse practitioners; and clinical nurse specialists. Specialist physicians were defined for these purposes as any participating physician with a non-primary care specialty. Nearly 80% of the physicians in panel 1 had primary care specialties, slightly less than 50% of the physicians in panel 2 had primary care specialties, and nearly 60% of the physicians in panel 3 had primary care specialties.

Figure E-1
Trends in per beneficiary per month expenditures, by panel and combined, PY3



(continued)

Figure E-1 (continued)
Trends in per beneficiary per month expenditures by panel and combined, PY3

NOTES: IG, intervention group; PY3, performance year 3.

Panel 1's comparison-adjusted target was $844.79 PBPM. Panel 1's standardized actual expenditures were $881.25 PBPM—higher than the target by 4.3%.

Panel 2's comparison-adjusted target was $897.03 PBPM. Panel 2's standardized actual expenditures were $937.99 PBPM—higher than the target by 4.6%.

Panel 3's comparison-adjusted target was $876.10 PBPM. Panel 3's standardized actual expenditures were $928.19—higher than the target by 5.9%.

The combined standardized target ($868.55) is the weighted sum of the panel 1, panel 2, and panel 3 targets. The combined PBPM standardized actual expenditures ($908.93) are the weighted sum of the panel 1, panel 2, and panel 3 standardized expenditures. The beneficiary month weight for panel 1 inPY3 = 0.49; the beneficiary month weight for panel 2 in PY3 = 0.37; the beneficiary month weight for panel 3 in PY3 = 0.14.

The value of the target minus the minimum savings requirement for PY3 was $852.98 PBPM. If the expenditures of the IHIE assigned beneficiaries in PY3 were below this point, IHIE would have achieved savings.

SOURCE: RTI analysis of July 2008 through June 2012 100% Medicare claims files and enrollment datasets.

There were several notable differences in the characteristics of the IG beneficiaries in the three panels in PY3.

1. Beneficiaries may be included in the IG even if they live outside the 9-county target area, as long as they receive services from a participating physician. In PY3, the majority of beneficiaries assigned to panel 2 were from counties outside the demonstration area (52%), compared with only 16% in panel 1 and 36% in panel 3 (Table 4). This difference may be associated with the larger proportion of specialists in panels 2 and 3. However, the total PY3 IG is a blend of the three panels, so that most beneficiaries are from within the target area and are treated by primary care physicians. The CG is not based on a panel structure; however, the design of the CG selected metropolitan areas is based on their similarity to the Indianapolis area with regard to the sociodemographic characteristics of their Medicare populations. Therefore, the CG likely has a mix of primary and specialty physicians similar to that of the IG.

2. The proportion of allowed charges represented by evaluation and management (E&M) visits is a proxy for the amount of care provided by IHIE. The mean percentage in PY3 was 54% for panel 1, 40% for panel 2, and 41% for panel 3.

3. IHIE's quality performance is based on improvement in 15 diabetes, heart health, and cancer screening process measures. The overall percentage of quality targets achieved was 62% in PY3. In accordance with the protocol, IHIE reports one quality score for beneficiaries, regardless of the panel they are assigned to in the financial reconciliation.[1,2]

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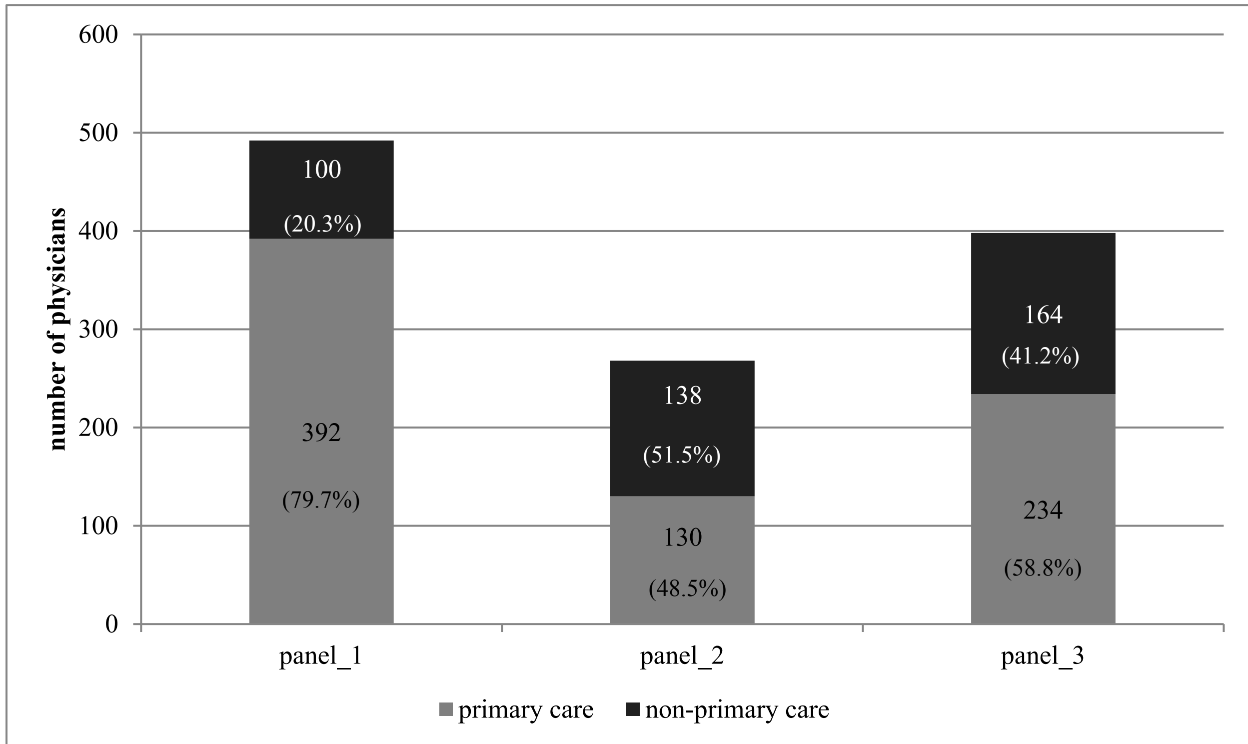
[1] See IHIE Demonstration Protocols, MMA §646, Health Care Quality Demonstration (2009).

[2] Section 3.1 of the IHIE Demonstration Protocols indicates that IHIE would submit 20 quality performance measures for PY3. IHIE submitted only 15 quality performance measures for PY3; these 15 measures were used to determine the quality score.

Figure E-2
Physician specialties compared across panels



NOTES:

1. Primary care specialties are defined as family medicine (207Q00000X, 207QA0505X, 207QG0300X), internal medicine (207R00000X, 207RG0300X), general practice (208D00000X), physician assistant (363A00000X, 363AM0700X), nurse practitioner (363L00000X, 363LA2100X, 363LA2200X, 363LF0000X, 363LG0600X, 363LP2300X), or clinical nurse specialist (364S00000X, 364SA2100X, 364SA2200X, 364SC2300X, 364SF0001X, 364SG0600X).
2. Non-primary care signifies practitioners in specialties other than those named in Note 1 and it includes specialist physicians.
3. The counts of physicians listed may not match the counts of physicians in the profile tables. Some physicians did not list primary specialty information in the National Plan & Provider Enumeration System (NPPES).

SOURCE: RTI analysis of July 2011–June 2012 100% Medicare claims files and enrollment datasets; NPPES, May 2012.

E.3 Intervention and Comparison Group Characteristics

The CG for IHIE consists of beneficiaries from three other metropolitan areas in the Midwest identified using the IHIE beneficiary assignment algorithm. In general, the CG was similar to the IHIE IG in PY3 in nearly all important respects.

- Because the comparison target area encompasses three regions rather than one, the total number of PY3 CG beneficiaries was more than twice as large as the IG (348,210 compared with 121,215; Table 2). The CG is selected from three regions to increase the precision of the target by minimizing the effect that both random and

systematic fluctuations in any one area could have. The larger CG also lowers the minimum savings requirement, because increasing population size decreases the minimum savings rate.

- In PY3 the two groups had similar numbers of office/outpatient visits (mean = 9.03 in the IG and 8.05 in the CG), as well as similar hospital discharge rates (Table 3).

- The composition of the two groups was similar with respect to gender, age group, and reason for Medicare eligibility across panels for the BY and PY3. Panel 2 beneficiaries were slightly older and less likely to be disabled (Table 3).

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SECTION 1
OVERVIEW OF PERFORMANCE YEAR THREE RESULTS FOR THE IHIE MEDICARE HEALTH CARE QUALITY DEMONSTRATION

This report contains information regarding the Indiana Health Information Exchange's (IHIE's) financial results for the third performance year (PY3) of the Medicare Health Care Quality Demonstration (July 1, 2011–June 30, 2012). The package includes the following information regarding the financial reconciliation: (1) an overview of the intervention and comparison groups, (2) performance payment results for PY3, and (3) savings calculation methodology.

All calculations were performed according to the methods set forth in the IHIE Demonstration Protocols, Medicare Prescription Drug, Improvement, and Modernization Act (MMA) §646 Health Care Quality Demonstration (2009).

1.1 Overview of the Groups and Panels

The initial design of the IHIE demonstration was to phase in the intervention starting with primary care and then to incrementally include high-volume specialty care, hospital care, and other specialty care. The panel design would then allow comparison of physicians to similar physicians (primary care physicians [PCPs] to PCPs and specialists to specialists) over time. However, CMS decided that all physicians who were members of a participating practice were to be considered participating physicians, regardless of their specialty. Thus, the panel design incorporates all new physicians to IHIE in a separate panel each year. **Table 1** shows the specialty distribution of IHIE physicians in PY3. There were no changes to the panel design in PY3.

In PY3, the financial reconciliation uses two groups of beneficiaries, the intervention group (IG) and the comparison group (CG). Each group has a performance year (PY) and a base year (BY). The groups are not followed across time but are reassigned in each period. In PY3, the protocol calls for a panel design for the financial reconciliation. Thus, in PY3, 10 sets of beneficiaries are used in calculations – 6 sets of IG beneficiaries and 4 sets of CG beneficiaries. The sets are as follows:

- IG PY3 physician panel 1 beneficiaries
- IG PY3 physician panel 2 beneficiaries
- IG PY3 physician panel 3 beneficiaries
- IG BY physician panel 1 beneficiaries
- IG BY physician panel 2 beneficiaries
- IG BY physician panel 3 beneficiaries

- CG PY3 beneficiaries (same for all three panels)
- CG BY physician panel 1 beneficiaries
- CG BY physician panel 2 beneficiaries
- CG BY physician panel 3 beneficiaries

In this section, we will describe the methodology behind selecting beneficiaries and some attributes of the IG and CG for PY3. **Tables 2–4** contain information describing the attributes of the IG and CG for PY3. The information in these tables is sourced from the profile tables, which are provided as a separate appendix to this report. The interested reader is referred to the profile tables in the appendix for a more in-depth look at the IG and CG.

1.2 Beneficiary Assignment Methodology

PY3 has three physician panels: panel 1, panel 2, and panel 3. Physician panel 1 consists of physicians who entered into a participating provider agreement prior to the start of PY1. Physician panel 2 consists of physicians who are not members of panel 1 and who entered into a participating provider agreement prior to the start of PY2. Physician panel 3 consists of physicians who are not members of panel 1 or panel 2 and who entered into a participating provider agreement prior to the start of PY3. The panel 1 baseline consists of beneficiaries assigned during the year prior to PY1 (July 1, 2008–June 30, 2009). The panel 2 baseline consists of beneficiaries who were assigned during the time period that is PY1 (July 1, 2009–June 30, 2010) but who were not assigned to the IG in PY1. The panel 3 baseline consists of beneficiaries who were assigned during the time period that is PY2 (July 1, 2010–June 30, 2011) but who were not assigned to the IG in PY2. The IG for all panels is assigned during PY3 (July 1, 2011–June 30, 2012). **Figure 1** shows the timing of the BYs and PYs**.**

1.2.1 Intervention Group

The IG population consists of Indiana residents who meet general eligibility criteria (defined in Section 2 of the Protocol) with at least one qualifying evaluation and management (E&M) visit with a participating physician, regardless of the tax ID number (TIN) or place of service ZIP code on that claim line item. The IG beneficiaries are identified using final action claims with dates of service falling within the start and end dates of the demonstration year and a paid-date within 6 months of the end of the demonstration year. In PY3, 121,215 beneficiaries were assigned to the IG (see Table 2).

There are four steps involved in assigning beneficiaries to the PY3 IG. They involve, in turn, identifying participating practices, identifying participating physicians, assigning physicians to a physician panel, and identifying IG beneficiaries.

1. Use the list of TINs, sent by IHIE to CMS, to identify participating practices.
2. Identify participating physicians – any physician who, during PY3, provided a qualifying E&M visit to an eligible Medicare beneficiary, if that visit was billed

through a participating practice within the 9-county Indianapolis area (as specified in the Protocol). RTI excluded from the list of physicians used for assignment any physicians whose National Provider Identifiers (NPIs) identified them as participating in other programs during PY3.

3. Assign physicians to panel 1, panel 2, or panel 3 by comparing the list of participating physicians from step 2 to the list of participating physicians from PY1 and PY2. All physicians included in PY1, PY2 and PY3, or PY1 and PY3 are assigned to panel 1; physicians assigned to PY2 and PY3 are assigned to panel 2; and physicians included only in PY3 are assigned to panel 3.

4. Identify PY3 IG beneficiaries as beneficiaries who have at least one qualifying E&M visit with a participating physician, who meet the general eligibility criteria for the demonstration IG, and who were not assigned to any other program. Beneficiaries who had a qualifying visit with a panel 1 physician, regardless of visits with any panel 2 or panel 3 physicians, are assigned as panel 1 beneficiaries. Beneficiaries who had a qualifying visit with a panel 2 physician only or a combination of panel 2 and panel 3 physicians are assigned as panel 2 beneficiaries. Beneficiaries who had a qualifying visit with only a panel 3 physician are assigned as panel 3 beneficiaries.

Figure 1
Overview of intervention groups and baselines for panels by performance year

<table>
<tr><th>Base Year</th><th>Year 1</th><th>Year 2</th><th>Year 3</th></tr>
<tr><td>Panel 1 baseline:
Patients treated during base year by a member of physician panel 1</td><td>Intervention group:
Patients treated during performance year 1 by a member of physician panel 1</td><td rowspan="2">Intervention group:
Patients treated during performance year 2 by any participating physician in panels 1 or 2</td><td rowspan="3">Intervention group:
Patients treated during performance year 3 by any participating physician in panels 1, 2 or 3</td></tr>
<tr><td></td><td>Panel 2 baseline:
Patients treated during performance year 1 by a member of physician panel 2 and not included in performance year 1 intervention group</td></tr>
<tr><td></td><td></td><td>Panel 3 baseline:
Patients treated during performance year 2 by a member of physician panel 3 and not included in performance year 2 intervention group</td></tr>
</table>

SOURCE: IHIE Demonstration Protocols, Figure 2.2.3.1.

The BY IG consists of beneficiaries (1) who receive a qualifying E&M visit during the BY from a physician who is a participating PY3 physician and (2) who meet general BY eligibility criteria for the demonstration. For each panel, the same list of participating physicians was used to assign beneficiaries to IHIE in PY3 and the panel's corresponding BY. The panel 1 BY was July 1, 2008–June 30, 2009; the panel 2 BY was July 1, 2009–June 30, 2010; and the panel 3 BY was July 1, 2010–June 30, 2011. Beneficiaries were excluded from the panel 2 BY if they were included in the IG in PY1 and from the panel 3 BY if they were included in the IG in PY2. In PY3, 56,263 beneficiaries were assigned to the BY for the IG panel 1; 33,149 beneficiaries were assigned to the BY for the IG panel 2; and 12,933 beneficiaries were assigned to the BY for the IG panel 3 (see Table 2).

In PY3, CMS implemented a policy to prevent beneficiaries from being included in the savings calculations for more than one program at a time. Beneficiaries were excluded from IHIE assignment if they were assigned to any of the following programs during PY3: Independence at Home Practice Demonstration, Physician Group Practice Transition Demonstration, Multi-Payer Advanced Primary Care Demonstration, Pioneer, Medicare Shared Savings Program (SSP), Medicare-Medicaid Coordination Office (MMCO) Financial Alignment Demonstration (Duals), or Comprehensive Primary Care Initiative (CPCI). Beneficiaries who were assigned to any other program were excluded from both PY3 and the BY for the IHIE savings calculation. Physicians were also excluded from the list of physicians (NPIs) used for assignment if they were participating in another program during PY3. RTI obtained a list of the beneficiaries and physicians in other programs from the Master Data Management (MDM) system maintained by CMS to perform the exclusions.[3]

1.2.2 Comparison Group

The CG population consists of residents residing in comparison counties in the metropolitan areas (depicted in **Figure 2**) of Milwaukee, WI, Columbus, OH, and Louisville, KY, and who meet the general eligibility criteria (defined in Section 2 of the Protocol) with at least one qualifying E&M visit. The metropolitan areas were selected because of their similarity to the Indianapolis area with regard to the sociodemographic characteristics of their Medicare populations. The CG beneficiaries are identified using final action claims with dates of service falling within the start and end dates of the demonstration year and a paid-date within 6 months of the end of the demonstration year.

Two steps are involved in assigning beneficiaries to the CG:

1. Identify beneficiaries residing in the comparison counties who received at least one qualifying E&M visit during the demonstration year.

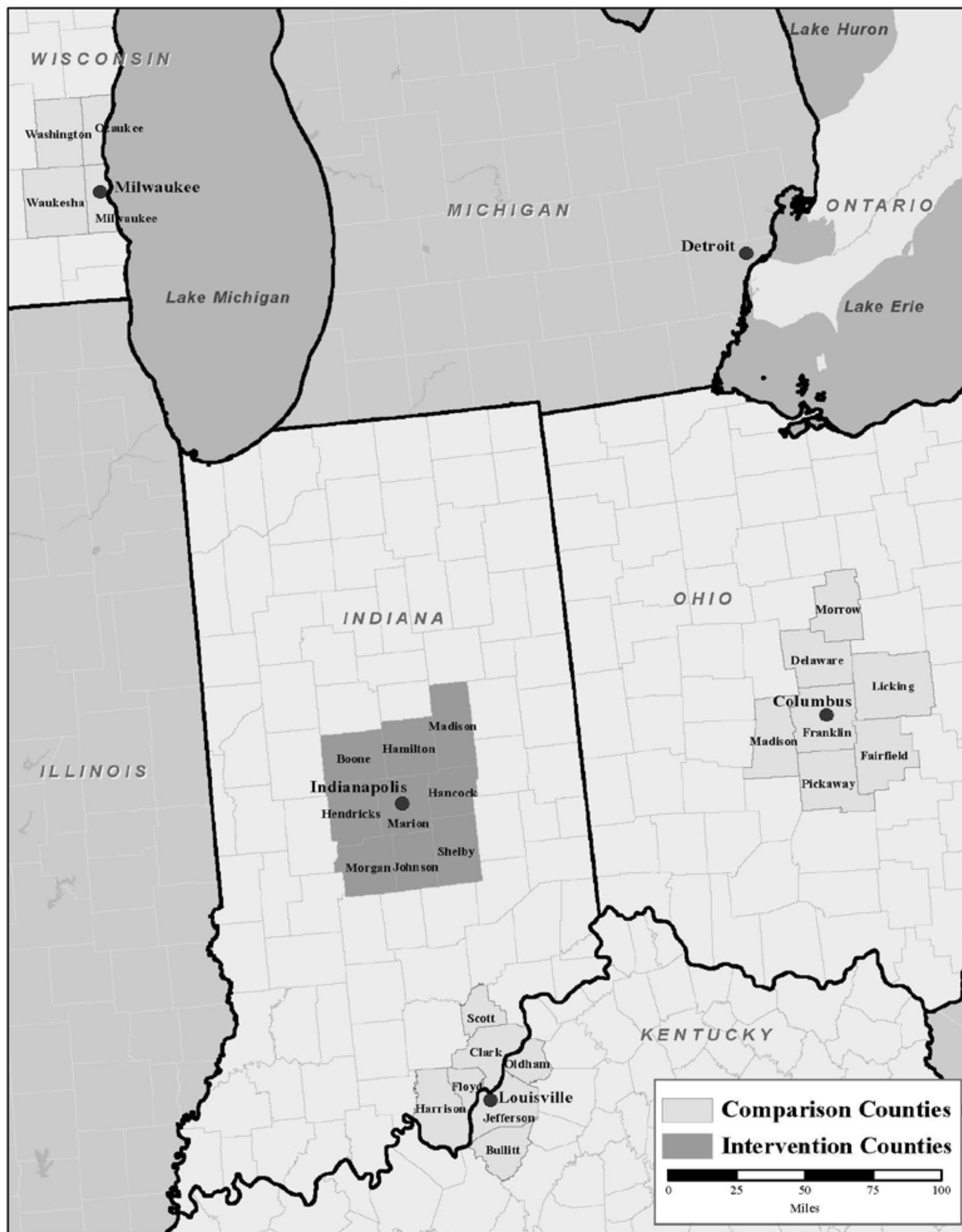
2. Among beneficiaries identified in step 1, retain those who meet all other eligibility criteria for the demonstration CG during the demonstration year. Note that if a

[3] Beneficiary assignment to other programs was determined using the beneficiary extract file in the MDM system dated 2/21/2013. Physician participation in other programs was determined using the provider extract file in the MDM system dated 1/30/2013.

beneficiary resides in a CG county, but meets eligibility requirements for the IG, assignment is made to the IG.

RTI defined four CG sets of beneficiaries. One set of beneficiaries was assigned during PY3 that is common to all panels and includes 348,210 beneficiaries (see Table 2). The second set of beneficiaries was for the BY for panel 1 and consisted of 355,383 beneficiaries. The third set of beneficiaries was for the BY for panel 2 and consisted of 341,741 beneficiaries. The last set of beneficiaries was for the BY for panel 3 and consisted of 347,301 beneficiaries.

Figure 2
Map of the intervention group and comparison group counties



1.3 Characteristics of the Intervention and Comparison Groups

The IG is a nine-county area surrounding Indianapolis, IN, and the CG includes the three metropolitan areas of Columbus, OH, Milwaukee, WI, and Louisville, KY. The IG and CG counties are depicted in Figure 2.

Table 1 shows the distribution of physicians assigned to IHIE in PY3. There were 1,164 physicians used in the beneficiary assignment in PY3. Table 1 also compares the specialties of the panel 1, panel 2, and panel 3 physicians in PY3. Primary care physicians were defined as physicians with specialties of family medicine, internal medicine, or general practice; physician assistants; nurse practitioners; and clinical nurse specialists. Specialist physicians were defined for these purposes as any participating physician with a non-primary care specialty. In panel 1, 392 physicians, nearly 80%, had primary care specialties; in panel 2, 130 physicians, slightly less than 50%, had primary care specialties; and in panel 3, 234 physicians, just less than 60%, had primary care specialties.

Table 1
Physician specialties in performance year 3 compared across panels

Panel	Practices	Participating physicians[1]	Number primary care[2]	Number non-primary care[3]	Percent primary care[4]	Percent non-primary care[4]
Panel 1	28	497	392	100	79.7%	20.3%
Panel 2	13	268	130	138	48.5%	51.5%
Panel 3	21	399	234	164	58.8%	41.2%
All	41	1,164	756	402	65.3%	34.7%

NOTES:

[1] The total number of participating physicians in each panel will not equal the sum of the physicians with primary care specialties and those with non-primary care specialties. Primary specialty information was not available for some providers in the National Plan & Provider Enumeration System (NPPES).

[2] Primary care specialties are defined as family medicine (207Q00000X, 207QA0505X, 207QG0300X), internal medicine (207R00000X, 207RG0300X), general practice (208D00000X), physician assistant (363A00000X, 363AM0700X), nurse practitioner (363L00000X, 363LA2100X, 363LA2200X, 363LF0000X, 363LG0600X, 363LP2300X), or clinical nurse specialist (364S00000X, 364SA2100X, 364SA2200X, 364SC2300X, 364SF0001X, 364SG0600X).

[3] Non-primary care signifies practitioners in specialties other than those named in Note 2 and it includes specialist physicians.

[4] Percentage of physicians for whom specialty was identified: 492 physicians in panel 1; 268 physicians in panel 2; and 398 physicians in panel 3.

SOURCE: RTI analysis of July 2011–June 2012 100% Medicare claims files and enrollment datasets; NPPES, May 2012.

As shown in Table 1, 41 practices are participating in the IHIE in PY3. Ten new practices joined the IHIE in PY3. Twenty-six practices have been participating in since PY1, and five practices were participating in IHIE for PY2 and PY3 only. Any beneficiaries of physicians in these new practices who were not participating physicians in PY1 or PY2, or any beneficiaries of new physicians in participating PY1 or PY2 practices, are included in physician panel 3.[4] The PY3 IG combined panels is the sum of the beneficiaries in panels 1, 2, and 3. The CG is almost three times the size of the IG in the BY and PY3, as the CG comprises three metropolitan areas.

Table 2 provides information regarding the number of beneficiaries assigned to the PY3 IG and CG.[5] Table 2 also shows the number of beneficiaries who were excluded on the basis of the criteria in the protocol. The proportion of beneficiaries excluded from assignment is similar for both the IG and CG in PY3. The proportion of IG beneficiaries excluded from assignment in panel 2 and panel 3 in the BY is higher than the proportion of beneficiaries excluded from assignment from the CG in the BY. This is explained by the exclusion of PY1 and PY2 IG beneficiaries from the PY3 panels 2 and 3, respectively. Slightly fewer than 17,000 beneficiaries were excluded from the BY IG for panel 2 because they were assigned to the IG in PY1, and slightly fewer than 15,000 beneficiaries were excluded from the BY IG for panel 3 because they were assigned to the IG in PY2.

Table 3 summarizes several utilization, expenditure, and demographic measures for the IG and CG groups in PY3.[6] The mean proportion of allowed charges for qualified office or other outpatient E&M visits provided by IHIE participating practices, presented only for the IG, is a proxy for how much of the assigned beneficiaries' care is provided by IHIE. The proportion is highest for panel 1 in the PY. The proportion is lower in the BY than the PY for each panel and substantially lower for panel 2. The lower proportion for panel 2 beneficiaries may be explained by the number of patients assigned on the basis of visits with participating physicians in non-participating practices only. As shown in Table 2, 98% (54,028 of 54,307) of panel 2 beneficiaries in the BY were assigned on the basis of visits with participating physicians at non-IHIE practices.

The mean count of qualified office or other outpatient E&M visits is shown for both the IG and CG for each panel. The mean visit count is similar across the groups and ranges from roughly 7.5 visits to almost 10 visits per beneficiary per year. Likewise, the mean count of hospital discharges is similar across all of the groups and ranges from 0.39 to 0.47.

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[4] Unless the beneficiary had a qualifying E&M visit with a panel 1or panel 2 physician, which would assign that beneficiary to panel 1 or panel 2, respectively.

[5] Reference Table 1 presents the Table 2 information for PY1. Reference Table 2 presents the Table 2 information for PY2.

[6] Reference Table 3 presents the Table 3 information for PY1. Reference Table 4 presents the Table 3 information for PY2.

Table 2
Beneficiary assignments and exclusions compared across panels

Assignments and exclusions	BY IG Panel 1	BY IG Panel 2	BY IG Panel 3	PY3 IG Panel 1	PY3 IG Panel 2	PY3 IG Panel 3	PY3 IG (Combined Panels)[1]	BY CG Panel 1	BY CG Panel 2	BY CG Panel 3	PY3 CG
Patients of participating physicians at participating practices	31,613	1,279	14,549	63,414	47,391	17,002	127,807	—	—	—	—
Patients of participating physicians at non-participating practices only	31,531	53,028	15,286	2,201	1,189	2,894	6,284	—	—	—	—
Assigned beneficiaries before exclusions	63,144	54,307	29,835	65,615	48,580	19,896	134,091	394,603	395,331	382,256	390,124
Total beneficiaries excluded from assignment[2]	6,881	21,158	16,902	6,584	4,095	2,197	12,876	39,220	53,590	34,955	41,914
At least 1 month of Part A-only or Part B-only coverage	838	459	270	855	367	243	1,465	7,702	8,225	7,733	7,602
At least 1 month of Medicare Advantage enrollment	2,994	1,686	702	2,713	1,334	745	4,792	19,304	34,432	16,372	24,448
Did not reside in state of Indiana at end of calendar year in which performance year ends	487	429	258	614	370	171	1,155	—	—	—	—
Had coverage under employer-sponsored group health plan	2,036	1,668	909	2,091	1,370	683	4,144	14,978	14,984	14,407	14,171
No enrollment file record	39	26	14	33	20	13	66	—	—	—	—
Assigned to IG[3]	—	16,807	14,804	—	—	—	—	184	96	186	296
Assigned to other program[4]	929	483	170	800	948	495	2,243	—	—	—	—
Total assigned beneficiaries	56,263	33,149	12,933	59,031	44,485	17,699	121,215	355,383	341,741	347,301	348,210

NOTES:

BY, base year; CG, comparison group; IG, intervention group; PY, performance year.

PY3: July 1, 2011–June 30, 2012

BY panel 1: July 1, 2008–June 30, 2009

BY panel 2: July 1, 2009–June 30, 2010

BY panel 3: July 1, 2010–June 30, 2011

[1] The combined panel measures are estimated as the sum of the panel 1, panel 2, and panel 3 assignments and exclusions.

[2] Exclusions are not mutually exclusive. A beneficiary may be excluded for more than one reason.

[3] This exclusion for the BY IG for panels 2 and 3 is applied because the time period for selection of that group overlaps with the time period for the PY1 and PY2 IGs, respectively. A similar exclusion is always applied to the CG so that no member of the CG is part of the IG.

[4] Beneficiaries assigned to any other Medicare program during the PY are excluded from IHIE BY and PY assignment. Assignment to other programs was determined using the beneficiary extract file in the MDM (Master Data Management) system dated 2/21/2013.

SOURCE: RTI analysis of July 2008–June 2012 100% Medicare claims files and enrollment datasets.

Table 3
Utilization, expenditures, and demographics of intervention and comparison group beneficiaries across panels, BY and PY3

Measure	BY IG Panel 1	BY IG Panel 2	BY IG Panel 3	PY3 IG Panel 1	PY3 IG Panel 2	PY3 IG Panel 3	PY3 IG (Combined Panels)[1]	BY CG Panel 1	BY CG Panel 2	BY CG Panel 3	PY3 CG
Mean proportion of allowed charges for qualified office or other outpatient E&M visits provided by Indiana Health Information Exchange participating practices[2]	0.30	0.04	0.35	0.54	0.40	0.41	0.47	—	—	—	—
Mean count of qualified office or other outpatient E&M visits[3]	8.05	9.04	8.11	8.67	9.71	8.53	9.03	7.52	7.74	8.52	8.05
Mean count of hospital discharges[4]	0.40	0.47	0.39	0.42	0.47	0.43	0.44	0.41	0.41	0.41	0.40
Mean annualized Medicare expenditures per beneficiary per year (PBPY)[5]	$9,366	$10,789	$10,474	$10,632	$11,636	$11,387	$11,109	$9,473	$9,860	$10,148	$10,222
Mean annualized Medicare expenditures per beneficiary per month (PBPM)	$780	$899	$873	$886	$970	$949	$926	$789	$822	$846	$852
Medicare eligibility (%)											
Aged[6]	79.5	87.1	78.8	76.1	86.1	76.3	79.9	81.4	79.9	79.1	77.6
ESRD[7]	1.1	1.1	1.4	1.3	1.1	1.6	1.3	1.3	1.3	1.4	1.3
Disabled	19.4	11.8	19.8	22.6	12.8	22.0	18.9	17.3	18.8	19.6	21.1
Gender (%)											
Male	38.5	48.2	40.1	39.0	47.6	40.3	42.4	40.7	40.9	41.1	41.3
Female	61.5	51.8	59.9	61.0	52.4	59.7	57.6	59.3	59.1	58.9	58.7
Age (%)											
< 65	19.9	12.2	20.5	23.3	13.2	22.8	19.5	17.9	19.5	20.3	21.8
65–75	41.8	41.0	42.2	40.2	40.4	41.4	40.4	39.3	38.2	38.2	37.7
75–85	28.5	34.3	27.0	26.4	33.2	26.0	28.8	30.7	29.8	28.9	28.0
85+	9.7	12.6	10.3	10.2	13.3	9.8	11.3	12.0	12.5	12.5	12.6

NOTES:
BY. base year; CG. comparison group; E&M, evaluation and management; ESRD, end-stage renal disease; IG. intervention group; PY. performance year.
PY3: July 1, 2011 - June 30, 2012
BY panel 1: July 1, 2008 - June 30, 2009
BY panel 2: July 1, 2009 - June 30, 2010
BY panel 3: July 1, 2010 - June 30, 2011

1 The combined panel measures are estimated by calculating the weighted sum of the panel 1, panel 2, and panel 3 measures. The beneficiary month weight for panel 1 in PY3 = 0.49; the beneficiary month weight for panel 2 in PY3 = 0.37; the beneficiary month weight for panel 3 in PY3 = 0.14. The same beneficiary month weights are used to calculate the combined standardized target and the combined actual expenditures in the savings calculation, as shown in Table 5 of the report.
2 Proportion of qualified office and other outpatient E&M allowed charges provided to the beneficiary that were provided by any IHIE participating practice. Qualified E&M visits are listed in §9.1 of the Protocol. This measure applies only to IHIE beneficiaries and not CG beneficiaries.
3 Qualified E&M visits are listed in §9.1 of the Protocol and are counted regardless of performing physician.
4 Refers to hospital discharges at any provider.
5 Annualized Medicare expenditures per beneficiary are calculated by dividing actual expenditures by the fraction of the year the beneficiary is alive and are capped at $100,000 for non-ESRD beneficiaries and $200,000 for ESRD beneficiaries. Expenditures have been rounded to the nearest dollar for presentation purposes. Performance payment calculations will use additional precision—that is, expenditures will not be rounded to the nearest dollar.
6 Includes beneficiaries ages 65 and older without ESRD.
7 Includes beneficiaries with ESRD regardless of age.
SOURCE: RTI analysis of July 2008–June 2012 100% Medicare claims files and enrollment datasets.

Table 3 also shows two mean annualized Medicare expenditures measures. One is shown per beneficiary per year and the other per beneficiary per month (PBPM). The expenditure measures are capped at $100,000 annually for beneficiaries without end-stage renal disease (ESRD) and at $200,000 annually for beneficiaries with ESRD. The expenditures are not adjusted for demographic differences. The expenditures for the PY3 IG panel 1 were slightly lower than the expenditures for panels 2 and 3. The IG expenditures were higher than the CG expenditures for all three panels.

Lastly, Table 3 provides information regarding the demographic characteristics of the beneficiaries in the IG and CG. The reason for Medicare eligibility was similar across all of the groups; the majority of beneficiaries were aged. The IG PY3 panel 2 and BY IG panel 2 included larger proportions of beneficiaries eligible by age and of male beneficiaries than the other groups. The IG PY3 panel 2 and BY IG panel 2 also included a higher proportion of older beneficiaries (aged 75 or older) than the other groups.

Table 4 shows the distribution of assigned beneficiary residence for the IG.[7] Among the demonstration counties, the largest proportion of beneficiaries came from Marion County for all panels and PYs. The largest difference among the groups is for panel 2; in both the BY and PY3 the proportion of beneficiaries residing in counties outside of the demonstration area for panel 2 was much larger than that for panels 1 and 3. The proportion of panel 3 beneficiaries residing outside of the demonstration area was larger than the panel 1 proportion. This difference may be driven in part by the location of the practices in which the different panel physicians work. If more panel 2 and 3 physicians are located on the outskirts of the intervention area, we would expect that a greater proportion of beneficiaries would reside in counties outside the demonstration area. The difference may also be driven by the smaller proportion of primary care physicians seen in panels 2 and 3 relative to panel 1, as seen in Table 1.

[7] Reference Table 5 presents the Table 4 information for PY1. Reference Table 6 presents the Table 4 information for PY2.

Table 4
Distribution of Indiana Health Information Exchange assigned beneficiary residence by demonstration area counties, by panel

County name	County number[1]	BY Intervention Group Panel 1	BY Intervention Group Panel 2	BY Intervention Group Panel 3	PY3 Intervention Group Panel 1	PY3 Intervention Group Panel 2	PY3 Intervention Group Panel 3	PY3 Intervention Group (Combined Panels)[2]
Boone	15050	1.2	3.2	11.3	1.2	2.8	10.2	3.1
Hamilton	15280	7.6	9.8	5.8	8.3	10.2	6.5	8.7
Hancock	15290	3.1	2.0	11.7	3.0	2.6	10.3	3.9
Hendricks	15310	1.6	4.1	1.7	1.8	5.1	2.9	3.2
Johnson	15400	2.2	0.7	0.7	2.4	1.1	1.0	1.7
Madison	15470	21.0	2.7	7.4	21.7	2.5	8.1	12.7
Marion	15480	44.2	21.9	22.8	43.8	22.2	23.2	32.9
Morgan	15540	1.7	0.6	0.5	1.6	0.9	0.9	1.3
Shelby	15720	0.4	0.3	1.4	0.4	0.4	1.2	0.5
Other Indiana counties	—	17.0	54.7	36.8	15.7	52.3	35.7	32.0

NOTES:

Performance Year 3 (PY3): July 1, 2011–June 30, 2012

Base Year (BY) panel 1: July 1, 2008–June 30, 2009

BY panel 2: July 1, 2009–June 30, 2010

BY panel 3: July 1, 2010–June 30, 2011

[1] State and county codes used by the Social Security Administration (SSA).

[2] The combined panel measures are estimated by calculating the weighted sum of the panel 1, panel 2, and panel 3 measures. The beneficiary month weight for panel 1 in PY3 = 0.49; the beneficiary month weight for panel 2 in PY3 = 0.37; the beneficiary month weight for panel 3 in PY3 = 0.14. The same beneficiary month weights are used to calculate the combined standardized target and the combined actual expenditures in the savings calculation, as shown in Table 5 of the report.

SOURCE: RTI analysis of July 2008–June 2012 100% Medicare claims files and enrollment datasets.

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SECTION 2
PERFORMANCE YEAR THREE RESULTS

This section presents the PY3 financial reconciliation results. The final section of the report discusses the methodology for the performance payment calculation.

The PY3 financial reconciliation results are determined by blending the expenditures effects for the three separate physician panels. Overall trends in PBPM expenditures, standardized for baseline differences, are shown in **Figure 3** for each panel's IG and target. A 3-year trend from the baseline (July 1, 2008–June 30, 2009) to PY3 (July 1, 2011–June 30, 2012) is shown for panel 1, a 2-year trend from the baseline (July 1, 2009–June 30, 2010) to PY3 (July 1, 2011–June 30, 2012) is shown for panel 2, and a 1-year trend from the baseline (July 1, 2010–June 30, 2011) to PY3 (July 1, 2011–June 30, 2012) is shown for panel 3.

Figure 3 contains four graphs—one for each panel and one that combines the three panels. The upper left graph in Figure 3 shows that standardized expenditures for panel 1 were higher for the IG ($881.25 PBPM) than the comparison-adjusted target ($844.79 PBPM) by 4.3%. The standardized expenditures for panel 2, shown in the top right graph, were higher than the comparison-adjusted target ($937.99 compared with $897.03) by 4.6%. The panel 3 expenditures, which exceeded the target by 5.9% ($928.19 compared with $876.10), are shown in the bottom left graph.[8]

The bottom right graph in Figure 3 shows the combined target and IG expenditures for PY3. After weighting by the number of months that beneficiaries contributed to each panel, the combined result for PY3 was 4.6% excess spending ($908.93 compared with a target of $868.55). The weights applied to the panels were 0.49 for panel 1, 0.37 for panel 2, and 0.14 for panel 3. Because there were no savings, IHIE did not receive any performance payments for PY3. IHIE would have needed to underspend the standardized target PBPM amount by 1.79% (the minimum savings rate) to qualify for payments during this PY.

Table 5 presents the savings calculation and provides the results for PBPM expenditures, demographic factors, combined standardized target and actual expenditures, gross savings, the minimum savings requirement, net savings, shareable savings, and performance payments.[9] IHIE did not generate gross savings or net savings in PY3. IHIE spent $40.38 more PBPM than their standardized target (line O, Gross Savings). As discussed above, IHIE needed to underspend the standardized target PBPM amount by the minimum savings requirement of $15.58 PBPM (line Q) to qualify for shared savings in PY3. The total performance payment earned by IHIE for PY3 ($0) can be found on line AB in Table 5.

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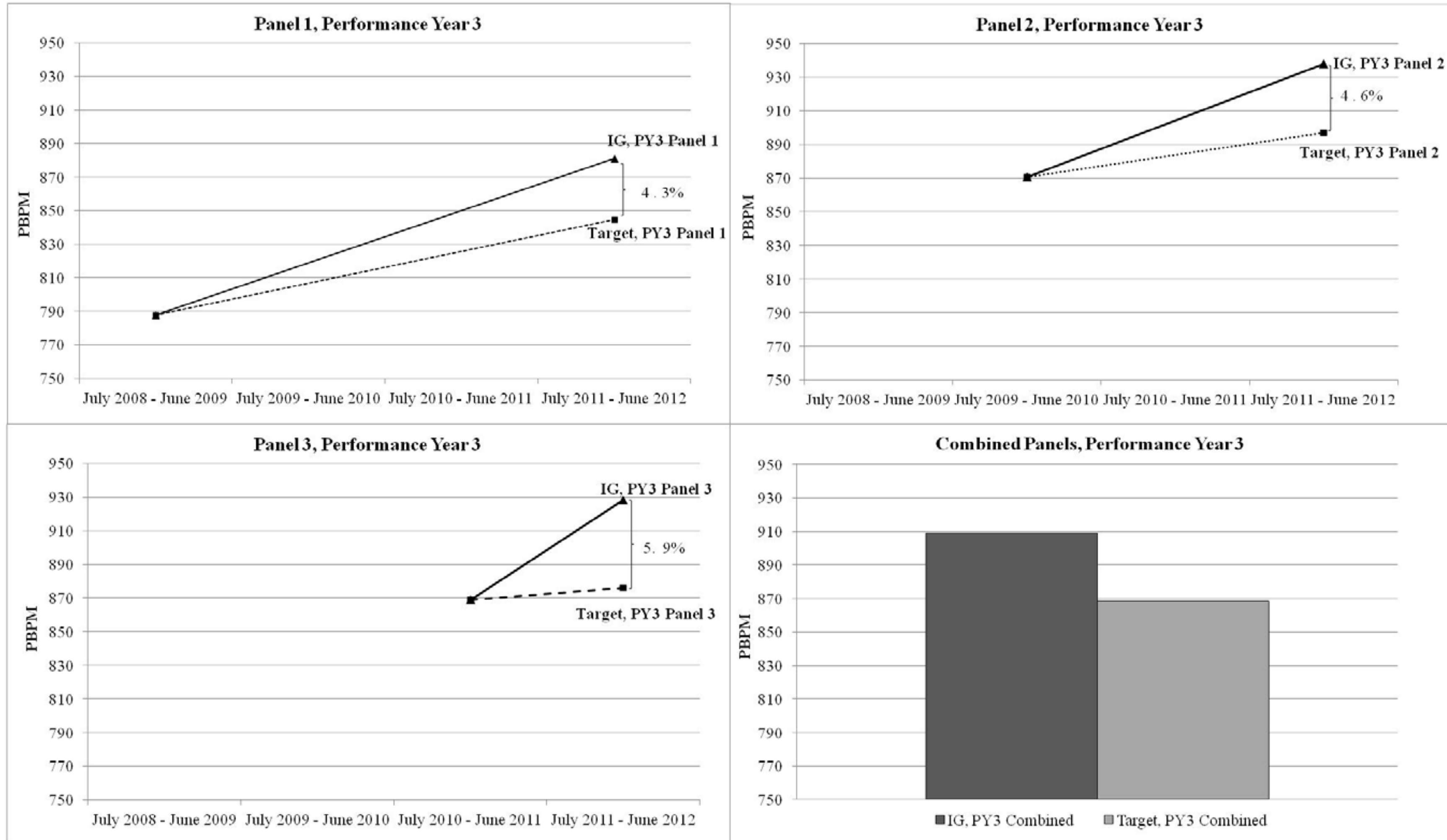
[8] Detailed calculations are shown in Table 5.

[9] Reference Table 7 presents the Table 5 information for PY1. Reference Table 8 presents the Table 5 information for PY2.

Figure 3
Trends in per beneficiary per month expenditures, by panel and combined, PY3



(continued)

Figure 3 (continued)
Trends in per beneficiary per month expenditures, by panel and combined, PY3

NOTES:

Panel 1's comparison-adjusted target was $844.79 PBPM. Panel 1's standardized actual expenditures were $881.25 PBPM—higher than the target by 4.3%.

Panel 2's comparison-adjusted target was $897.03 PBPM. Panel 2's standardized actual expenditures were $937.99 PBPM—higher than the target by 4.6%.

Panel 3's comparison-adjusted target was $876.10 PBPM. Panel 3's standardized actual expenditures were $928.19—higher than the target by 5.9%.

The combined standardized target ($868.55) is the weighted sum of the panel 1, panel 2, and panel 3 targets. The combined PBPM standardized actual expenditures ($908.93) are the weighted sum of the panel 1, panel 2, and panel 3 standardized expenditures. The beneficiary month weight for panel 1in PY3 = 0.49; the beneficiary month weight for panel 2 in PY3 = 0.37; the beneficiary month weight for panel 3 in PY3 = 0.14.

The value of the target minus the minimum savings requirement for PY3 was $852.98 PBPM. If the expenditures of the IHIE assigned beneficiaries in PY3 were below this point, IHIE would have achieved savings.

SOURCE: RTI analysis of July 2008–June 2012 100% Medicare claims files and enrollment datasets.

Table 5
Medicare Health Care Quality Demonstration performance payment results: Indiana Health Information Exchange, PY3

Component	Baseline, Panel 1[a]	PY3, Panel 1[b]	Baseline, Panel 2[c]	PY3, Panel 2[b]	Baseline, Panel 3[d]	PY3, Panel 3[b]	Combined Panels[e]
IG beneficiaries							
A—PBPM expenditures	$780.49	$886.02	$899.07	$969.69	$872.86	$948.89	—
B—Demographic factor	0.99095	1.00541	1.03258	1.03380	1.00446	1.02230	—
C—Standardized PBPM expenditures	$787.62	$881.25	$870.70	$937.99	$868.98	$928.19	—
D—Number of beneficiary months	659,561	689,230	389,199	520,836	150,447	205,102	1,415,168
CG beneficiaries							
E—PBPM expenditures	$789.39	$851.86	$821.65	$851.86	$845.65	$851.86	—
F—Demographic factor	1.02104	1.02727	1.02081	1.02727	1.02813	1.02727	—
G—Standardized PBPM expenditures	$773.12	$829.24	$804.90	$829.24	$822.51	$829.24	—
H—Number of beneficiary months	4,139,180	4,031,553	3,974,998	4,031,553	4,036,359	4,031,553	4,031,553
Performance payment results							
I—Standardized expenditure ratio	1.019	—	1.082	—	1.057	—	—
J—Standardized target	—	$844.79	—	$897.03	—	$876.10	—
K—PBPM standardized actual expenditures	—	$881.25	—	$937.99	—	$928.19	—
L—Beneficiary month weight	—	0.49	—	0.37	—	0.14	—
M—Combined standardized target	—	—	—	—	—	—	$868.55
N—Combined actual expenditures	—	—	—	—	—	—	$908.93
O—Target minus actual (gross savings)	—	—	—	—	—	—	-$40.38
P—Minimum savings requirement percentage	**—**	**—**	**—**	**—**	**—**	**—**	**1.79%**
Q—Minimum savings requirement	—	—	—	—	—	—	$15.58
R—Net savings	—	—	—	—	—	—	-$55.96
S—Net savings cap	—	—	—	—	—	—	—
T—Gross savings cap	—	—	—	—	—	—	—
U—Target cap	—	—	—	—	—	—	—
V—Shared savings	—	—	—	—	—	—	$0.00
W—Performance payment not contingent on quality performance	—	—	—	—	—	—	$0.00
X—Maximum performance payment for quality	—	—	—	—	—	—	$0.00
Y—Percentage of quality targets met	—	—	—	—	—	—	62%
Z—Performance payment for quality	—	—	—	—	—	—	$0.00
AA—Earned performance payment (PBPM)	—	—	—	—	—	—	$0.00
AB—Total earned performance payment	—	—	—	—	—	—	$0.00
AC—Medicare savings before award	—	—	—	—	—	—	—
AD—Medicare savings after award	—	—	—	—	—	—	—

continued

Table 5 (continued)
Medicare Health Care Quality Demonstration performance payment results: Indiana Health Information Exchange, PY3

NOTES: General: BY, base year; CG, comparison group; IG, intervention group; PBPM, per beneficiary per month; PY3, performance year 3. Statistics presented in this table are rounded for presentation purposes. Performance payment calculations use additional precision. All dollar values, with the exception of the total earned performance payment (line AB) and Medicare savings (lines AC and AD), are PBPM values.

Notes on columns:

[a] Baseline for panel 1 is the period July 1, 2008–June 30, 2009.
[b] PY3 for panel 1, panel 2, and panel 3 is the period July 1, 2011–June 30, 2012.
[c] Baseline for panel 2 is the period July 1, 2009–June 30, 2010.
[d] Baseline for panel 3 is the period July 1, 2010–June 30, 2011.
[e] Combined panel values for the number of beneficiary months are for PY3.

Notes on rows:

A—RTI calculations with BY and PY3 Medicare claims and enrollment data for beneficiaries assigned to the IG in panel 1, panel 2, and panel 3 and their baseline.
B—Demographic factor calculated by factors provided by the Office of the Actuary (Social Security) (OACT).
C—Expenditures divided by demographic factor (A / B).
D—Number of beneficiaries assigned to the IG in panel 1, panel 2, and panel 3 in BY and PY3.
E—RTI calculations with BY and PY3 Medicare claims and enrollment data for beneficiaries assigned to the CG in panel 1, panel 2, and panel 3 and their baseline.
F—Demographic factor calculated by factors provided by OACT.
G—Expenditures divided by demographic factor (E / F).
H—Number of beneficiaries assigned to the CG in panel 1, panel 2, and panel 3 in BY and PY3.
I—The ratio of standardized IG expenditures in baseline period to standardized CG expenditures in baseline period ([C for Baseline] / [G for Baseline]).
J—The product of the standardized expenditure ratio and standardized expenditures of the CG in the performance period (I x [G in performance period]).
K—Expenditures divided by demographic factor (A / B).
L—For panel 1: the number of beneficiary months in panel 1 for PY3 divided by the sum of the number of beneficiary months in panel 1, panel 2, and panel 3 for PY3 ([D PY3 panel 1] / {[D PY3 panel 1] + [D PY3 panel 2] + [D PY3 panel 3]}). For panel 2: the number of beneficiary months in panel 2 for PY3 divided by the sum of the number of beneficiary months in panel 1, panel 2, and panel 3 for PY3 ([D PY3 panel 2] / {[D PY3 panel 1] + [D PY3 panel 2] + [D PY3 panel 3]}). For panel 3: the number of beneficiary months in panel 3 for PY3 divided by the sum of the number of beneficiary months in panel 1, panel 2, and panel 3 for PY3 ([D PY3 panel 3] / {[D PY3 panel 1] + [D PY3 panel 2] + [D PY3 panel 3]}).
M—The sum of ([J for panel 1] × [L for panel 1]) + ([J for panel 2] × [L for panel 2]) + ([J for panel 3] × [L for panel 3]).
N—The sum of ([K for panel 1] × [L for panel 1]) + ([K for panel 2] × [L for panel 2]) + ([K for panel 3] × [L for panel 3]).
O—Target minus actual expenditures, which is equal to gross savings (M − N).
P—Minimum savings requirement percentage is based on the 95% confidence interval for the difference between actual expenditures for the IG and the expenditure target.
Q—The product of the minimum savings requirement percentage and target expenditures (M × P).
R—The difference between gross savings and the minimum savings requirement (O − Q).
S—Equal to 80% of net savings (0.80 × R).
T—Equal to 50% of gross savings (0.50 × O).
U—Equal to 5% of target expenditures (0.05 × M).
V—If net savings (R) are positive, the lesser of the gross savings cap, net savings cap, and target cap (lesser of S, T, and U). If net savings are negative, 0.
W—Equal to 30% of shared savings in PY3 (V × 0.30).
X—Equal to 70% of shared savings in PY3 (V × 0.70).
Y—Calculated by the Indiana Health Information Exchange (IHIE) on the basis of quality performance. In PY3, 20 measures were required in the protocol; IHIE reported 15.
Z—Product of the percentage of quality targets met and the maximum performance payment for quality (Y × X).
AA—Sum of performance payment for efficiency and performance payment for quality (W + Z).
AB—Equal to total earned performance payment (PBPM) multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (AA × [D for Combined Panels]).
AC—Equal to PBPM gross savings multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (O × [D for Combined Panels]).
AD—Equal to Medicare savings before award minus the award amount (AC − AB).

SECTION 3
THE SAVINGS CALCULATION METHODOLOGY

In this section we describe the methods used to perform the savings calculation. We used a list of practices provided by IHIE and Medicare claims data obtained through the data extract system (DESY) to perform the savings calculation and did not encounter any challenges. In each PY, the potential award payment is based on the calculated savings to Medicare. To determine the savings to Medicare, an expenditure target is calculated for the IG using the expenditures of the IG and CG as well as adjustments for differences in demographics. To generate savings, IHIE must underspend the target by a minimum amount (the minimum savings rate [MSR]) that accounts for the amount of variation in Medicare expenditures. This section describes how expenditures are calculated and adjusted for demographic differences and how the MSR, the expenditure target, and savings are calculated.

3.1 Calculating Medicare Expenditures

To calculate total Medicare Parts A and B expenditures for each beneficiary, RTI summed the expenditures (Medicare payments) from all of the beneficiary's claims at any Part A or B provider (hospital outlier payments and Part D expenditures were excluded). For each beneficiary that is assigned to the IG or CG, we then calculated an eligibility fraction. This eligibility fraction is the fraction of the year (fraction of 12 months) each beneficiary was enrolled in Medicare Parts A and B. Each beneficiary's expenditures were then annualized by dividing them by the eligibility fraction. All further analyses weighted the annualized expenditures by this same eligibility fraction. Annualizing and weighting the expenditures ensures that payments are correctly adjusted for new Medicare enrollees and decedents—beneficiaries who were not in the IG or CG for the entire year.[10] Weighted mean annualized expenditures divided by 12 yield the PBPM amount.

To prevent extremely costly beneficiaries from significantly affecting average expenditures, the annualized expenditures are capped. Annualized expenditures for covered services incurred by beneficiaries without ESRD are capped at $100,000; annualized expenditures for covered services that are incurred by beneficiaries with ESRD are capped at $200,000.

IG and CG expenditures for both the BY and the PY are calculated separately for each physician panel by summing the expenditures for each beneficiary in the panel. The PY3 expenditures are the weighted average of the physician panel expenditures. The weighted average is calculated by multiplying each physician panel's average expenditures by the number of beneficiary months in that physician panel, summing these multiples across physician panels, and dividing by the total number of beneficiary months. In PY3 the panel weights were 0.49 for panel 1, 0.37 for panel 2, and 0.14 for panel 3.

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[10] By definition, assigned beneficiaries must meet the demonstration eligibility requirements shown in Table 2, including having no months of Part A only or Part B only enrollment.

3.2 Adjusting Medicare Expenditures for Differences in Demographics

A demographic factor is used to adjust expenditures for the demographic composition of the IG and the CG in both the BY and PY:

Demographic-Adjusted PBPM Expenditures = (PBPM Expenditures) / (Demographic Factor).

The demographic factors are established each year on the basis of age, sex, and ESRD Medicare entitlement status. To calculate the demographic factors, RTI used 2007 Medicare claims for a 5% national sample of beneficiaries to estimate an ordinary least-squares regression, with expenditures as the dependent variable and independent variables representing age and gender categories. Separate regressions were run for ESRD and non-ESRD beneficiaries, and the regression coefficients were restricted to be nondecreasing with increasing age within two subgroups: aged younger than age 65 and aged 65 or older. The coefficients from these regressions were then divided by the pooled (ESRD and non-ESRD) total sample mean expenditures to generate age/gender demographic factors.

To calculate the weighted demographic factor for a group, RTI multiplied each age/gender demographic factor by the proportion of group beneficiary months that fell into the age/gender category and summed across categories. This was done separately for the BY and PY3 for the CG and IG and for each panel. The result was a demographic factor for each group (10 in total) that reflects the relative expected cost associated with the demographic composition of the group in that year.

The demographic factors are estimates of the ratio of a beneficiary's expected expenditures with the indicated enrollment characteristics relative to the mean expenditures for the entire Medicare fee-for-service (FFS) population. For example, a demographic factor of 1.0 indicates a beneficiary with expected costliness equal to the national FFS average. A factor of 1.10 indicates a beneficiary with expected costliness 10% above the FFS average, and a factor of 0.90 indicates a beneficiary with expected costliness 10% below the FFS average. The demographic factors measure changes in expected costliness due to changes in the demographic composition of a group.

3.3 Minimum Savings Requirement Calculation

The MSR, used in determining shared savings in each PY, is based on the 95% confidence interval for the difference between actual expenditures for the IG and the expenditure target,

$$\text{Minimum Required Savings Rate} = 1.96 \times \text{CV}\sqrt{2 \times \left(\frac{1}{n_i} + \frac{1}{n_c}\right)},$$

where CV, the coefficient of variation, is the standard deviation of BY expenditures for the pooled IG and CG sample divided by the BY mean expenditures for the pooled sample, n_i is the number of beneficiary years assigned to the IG in the performance period, and n_c is the number

of beneficiary years assigned to the CG in the performance period. The calculation of the MSR for the second PY is shown below. The MSR for PY3, 1.79%, is calculated in **Table 6**.

Table 6
Calculation of PY3 minimum required savings rate

Index	Component	Group	Year	Value
[A]	Person years IG PY3	IG panels 1, 2, and 3 combined	PY3	117,931
[B]	Person years CG PY3	CG panels 1, 2, and 3 combined	PY3	335,963
[C]	Standard deviation of demographic adjusted expenditures	IG and CG panels 1, 2, and 3 combined	BY	$19,992
[D]	Mean of demographic adjusted expenditures	IG and CG panels 1, 2, and 3 combined	BY	$10,458
[E]	Coefficient of variation (CV)	= [C] / [D]	—	1.91
[F]	Minimum required savings rate	$1.96 \times [E] \sqrt{2 \times \left(\frac{1}{[A]} + \frac{1}{[B]} \right)}$	—	1.79%

NOTES: CG, comparison group; IG, intervention group; PY3, performance year 3. Numbers may not add exactly in any given column due to rounding error. The letters within the square brackets are references to rows within this table.

SOURCE: RTI analysis of July 2008 through June 2012 100% Medicare claims files and enrollment datasets.

3.4 Calculating Expenditure Targets

The expenditure target is the amount of standardized expenditures that would occur in the IG if the growth rate were that of the CG. For example, assume that

- the BY standardized expenditures for the IG were $1,000,
- the BY standardized expenditures for the CG were $1,200, and
- the PY standardized expenditures for the CG were $1,260, so
- the standardized expenditure ratio would be $1,000 / $1,200 (or 0.833).

In this scenario, the growth rate of CG expenditures would be 0.05 or 5% ([$1,260 / $1,200] − 1). When the CG growth rate is applied to the BY expenditures for the IG, the expenditure target for the IG would be $1,050 ($1,000 × 1.05, or $1,000 × [$1,260 /

$1,200]). Another way to calculate the target for the IG is to multiply the PY expenditures for the CG by the standardized expenditure ratio ($1,260 × 0.833).

Each panel has its own expenditure target, and the PY3 expenditure target used to determine savings is the weighted average of the physician panel expenditure targets. The weighted average is calculated by multiplying each physician panel's target by the number of beneficiary months in that physician panel, summing these multiples across physician panels, and dividing by the total number of beneficiary months in the PY (the same method used for calculating combined expenditures).

3.5 Calculating Savings and the Award Amount

Two types of savings measures are used in the demonstration: gross savings and net savings. Both types of savings are expressed on a PBPM basis. Gross savings are calculated as the difference between the expenditure target and the actual expenditures for covered services incurred by beneficiaries assigned to the IG during the performance period. Any performance award payments would be made from gross savings. Net savings are the difference between gross savings and the minimum savings requirement (the product of the expenditure target and the MSR).

In each performance period in which savings exceeding the minimum savings requirement are generated, a percentage of the amount of the available savings calculated will be paid to IHIE not contingent on any other factors, and a percentage will be paid contingent on performance for that period. In PY3, the percentage of the award to be paid contingent on performance was 70%.

If gross savings are less than the minimum savings requirement, no award will be paid for that performance period. In PY3, IHIE did not generate savings and no award was paid. The PY3 gross savings were −$40.38 PBPM (Table 5, Row O) and the minimum savings requirement was $15.58 PBPM (Table 5, Row Q). The net savings ($0) is shown in Row R of Table 5.

REFERENCE TABLES

Reference Table 1
Beneficiary assignments and exclusions, PY1

Assignments and exclusions	BY IG Panel 1	PY1 IG Panel 1	BY CG Panel 1	PY1 CG
Patients of participating physicians at participating practices	101,056	118,150	—	—
Patients of participating physicians at nonparticipating practices only	30,034	17,775	—	—
Assigned beneficiaries before exclusions	131,090	135,925	394,603	395,331
Total beneficiaries excluded from assignment[1]	13,019	13,424	39,251	53,694
At least 1 month of Part A-only or Part B-only coverage	1,623	1,638	7,702	8,225
At least 1 month of Medicare Advantage enrollment	6,594	7,045	19,304	34,432
Did not reside in state of Indiana at end of calendar year in which performance year ends	1,074	882	—	—
Had coverage under employer-sponsored group health plan	4,663	4,931	14,978	14,984
No enrollment file record	92	86	—	—
Assigned to IG[2]	—	—	215	200
Total assigned beneficiaries	118,071	122,501	355,352	341,637

NOTES:

Performance year 1 (PY1): July 1, 2009–June 30, 2010.

Base year (BY) panel 1: July 1, 2008–June 30, 2009.

[1] Exclusions are not mutually exclusive. A beneficiary may be excluded for more than one reason.

[2] An exclusion applied to the comparison group (CG) so that no member of the CG is part of the intervention group (IG).

Computer output: i02tb1 (BY IG), i01tb1 (PY1 IG), i03tb1 (BY CG), i04tb1 (PY1 CG).

SOURCE: RTI analysis of July 2008–June 2010 100% Medicare claims files and enrollment datasets.

Reference Table 2
Beneficiary assignments and exclusions, PY2

Assignments and exclusions	BY IG Panel 1	BY IG Panel 2	PY2 IG Panel 1	PY2 IG Panel 2	PY2 IG (Combined Panels)[1]	BY CG Panel 1	BY CG Panel 2	PY2 CG
Patients of participating physicians at participating practices	101,056	50,316	124,334	42,162	166,496	—	—	—
Patients of participating physicians at nonparticipating practices only	30,034	16,009	7,740	4,480	12,220	—	—	—
Assigned beneficiaries before exclusions	131,090	66,325	132,074	46,642	178,716	394,603	395,331	382,256
Total beneficiaries excluded from assignment[2]	13,019	23,118	10,160	3,028	13,188	39,251	53,694	36,754
At least 1 month of Part A-only or Part B-only coverage	1,623	562	1,406	401	1,807	7,702	8,225	7,733
At least 1 month of Medicare Advantage enrollment	6,594	2,095	4,344	1,177	5,521	19,304	34,432	16,372
Did not reside in state of Indiana at end of calendar year in which performance year ends	1,074	527	967	318	1,285	—	—	—
Had coverage under employer-sponsored group health plan	4,663	2,060	4,334	1,440	5,774	14,978	14,984	14,407
No enrollment file record	92	28	74	18	92	—	—	—
Assigned to IG[3]	—	18,267	—	—	—	215	200	1,983
Total assigned beneficiaries	118,071	43,207	121,914	43,614	165,528	355,352	341,637	345,502

NOTES:

Performance year 2 (PY2): July 1, 2010–June 30, 2011.

Base year (BY) panel 1: July 1, 2008–June 30, 2009.

BY panel 2: July 1, 2009–June 30, 2010.

[1] The combined panel measures are estimated as the sum of the panel 1 and panel 2 assignments and exclusions.

[2] Exclusions are not mutually exclusive. A beneficiary may be excluded for more than one reason.

[3] This exclusion for the BY intervention group (IG) for panel 2 is applied because the time period for selection of that group overlaps with the time period for the PY1 IG. A similar exclusion is always applied to the comparison group (CG) so that no member of the CG is part of the IG.

Computer output: i02tb1_exclusions (BY IG panel 1), r34tb1_table1_exclusions.out (BY IG panel 2), r33tb1_exclusions.out (PY2 IG panel 1 and panel 2), i03tb1_exclusions (BY CG panel 1), i04tb1_exclusions (BY CG panel 2), r37tb1_exclusions.out (PY2 CG).

SOURCE: RTI analysis of July 2008–June 2011 100% Medicare claims files and enrollment datasets.

Reference Table 3
Utilization, expenditures, and demographics of intervention and comparison group beneficiaries, PY1

Measure	BY IG Panel 1	PY1 IG Panel 1	BY CG Panel 1	PY1 CG
Mean proportion of allowed charges for qualified office or other outpatient E&M visits provided by IHIE participating practices[1]	0.50	0.49	—	—
Mean count of qualified office or other outpatient E&M visits[2]	8.15	8.45	7.52	7.74
Mean count of hospital discharges[3]	0.41	0.41	0.41	0.41
Mean annualized Medicare expenditures PBPY[4]	$9,527	$10,011	$9,473	$9,862
Mean annualized Medicare expenditures PBPM	$794	$834	$789	$822
Medicare eligibility (%)				
Aged[5]	83.0	82.0	81.4	79.9
ESRD[6]	1.0	1.1	1.3	1.3
Disabled	16.0	17.0	17.3	18.8
Gender (%)				
Male	39.3	39.5	40.7	40.9
Female	60.7	60.5	59.3	59.1
Age (%)				
< 65	16.4	17.4	17.9	19.5
65–75	42.6	42.3	39.3	38.2
75–85	30.6	29.4	30.7	29.8
85+	10.5	10.8	12.0	12.5

NOTES:

Performance year 1 (PY1): July 1, 2009–June 30, 2010.

Base year (BY) panel 1: July 1, 2008–June 30, 2009.

E&M, evaluation and management; ESRD, end-stage renal disease; IHIE, Indiana Health Information Exchange; PBPM, per beneficiary per month; PBPY, per beneficiary per year.

[1] Proportion of qualified office and other outpatient E&M allowed charges provided to the beneficiary that were provided by any IHIE participating practice. Qualified E&M visits are listed in §9.1 of the Protocol. This measure applies only to IHIE beneficiaries and not comparison group (CG) beneficiaries.

[2] Qualified E&M visits are listed in §9.1 of the Protocol and are counted regardless of performing physician.

[3] Refers to hospital discharges at any provider.

[4] Annualized Medicare expenditures per beneficiary are calculated by dividing actual expenditures by the fraction of the year the beneficiary is alive and are capped at $100,000 for non-ESRD beneficiaries and $200,000 for ESRD beneficiaries. Expenditures have been rounded to the nearest dollar for presentation purposes. Performance payment calculations will use additional precision—that is, expenditures will not be rounded to the nearest dollar.

[5] Includes beneficiaries age 65 and older without ESRD.

[6] Includes beneficiaries with ESRD regardless of age.

Computer output: BY IG: i02tb2, i02tb3, i02tb4, i02tb5, i02tb7; PY1 IG: i01tb2, i01tb3, i01tb4, i01tb5, i01tb7; BY CG: i03tb2, i03tb3, i03tb4, i03tb6; PY1 CG: i04tb2, i04tb3, i04tb4, i04tb6.

SOURCE: RTI analysis of July 2008–June 2010 100% Medicare claims files and enrollment datasets.

Reference Table 4
Utilization, expenditures, and demographics of intervention and comparison group beneficiaries, PY2

Measure	BY IG Panel 1	BY IG Panel 2	PY2 IG Panel 1	PY2 IG Panel 2	PY2 IG (Combined Panels)[1]	BY CG Panel 1	BY CG Panel 2	PY2 CG
Mean proportion of allowed charges for qualified office or other outpatient E&M visits provided by IHIE participating practices[2]	0.50	0.31	0.52	0.35	0.48	—	—	—
Mean count of qualified office or other outpatient E&M visits[3]	8.15	9.25	8.81	9.21	8.91	7.52	7.74	8.51
Mean count of hospital discharges[4]	0.41	0.48	0.42	0.46	0.43	0.41	0.41	0.41
Mean annualized Medicare expenditures PBPY[5]	$9,527	$10,994	$10,587	$10,975	$10,688	$9,473	$9,862	$10,138
Mean annualized Medicare expenditures PBPM	$794	$916	$882	$915	$891	$789	$822	$845
Medicare eligibility (%)								
Aged[6]	83.0	87.0	81.5	85.9	82.6	81.4	79.9	79.1
ESRD[7]	1.0	1.1	1.2	1.0	1.1	1.3	1.3	1.4
Disabled	16.0	11.9	17.4	13.1	16.3	17.3	18.8	19.6
Gender (%)								
Male	39.3	44.2	39.7	46.7	41.5	40.7	40.9	41.1
Female	60.7	55.8	60.3	53.3	58.5	59.3	59.1	58.9
Age (%)								
< 65	16.4	12.3	17.9	13.5	16.8	17.9	19.5	20.3
65–75	42.6	40.0	42.3	41.5	42.1	39.3	38.2	38.2
75–85	30.6	34.7	28.9	32.4	29.8	30.7	29.8	28.9
85+	10.5	13.0	10.9	12.6	11.3	12.0	12.5	12.6

(continued)

Reference Table 4 (continued)
Utilization, expenditures, and demographics of intervention and comparison group beneficiaries, PY2

NOTES:

Performance year 2 (PY2): July 1, 2010 - June 30, 2011

Base year (BY) panel 1: July 1, 2008 - June 30, 2009

BY panel 2: July 1, 2009 - June 30, 2010

CG, comparison group; E&M, evaluation and management; ESRD, end-stage renal disease; IG, intervention group; IHIE, Indiana Health Information Exchange; PBPM, per beneficiary per month; PBPY, per beneficiary per year.

[1] The combined panel measures are estimated by calculating the weighted sum of the panel 1, and panel 2 measures. The beneficiary month weight for panel 1 in PY2 = 0.74; the beneficiary month weight for panel 2 in PY2 = 0.26. The same beneficiary month weights are used to calculate the combined standardized target and the combined actual expenditures in the savings calculation as shown in Reference Table 8.

[2] Proportion of qualified office and other outpatient E&M allowed charges provided to the beneficiary that were provided by any IHIE participating practice. Qualified E&M visits are listed in §9.1 of the Protocol. This measure applies only to IHIE beneficiaries and not CG beneficiaries.

[3] Qualified E&M visits are listed in §9.1 of the Protocol and are counted regardless of performing physician.

[4] Refers to hospital discharges at any provider.

[5] Annualized Medicare expenditures per beneficiary are calculated by dividing actual expenditures by the fraction of the year the beneficiary is alive and are capped at $100,000 for non-ESRD beneficiaries and $200,000 for ESRD beneficiaries. Expenditures have been rounded to the nearest dollar for presentation purposes. Performance payment calculations will use additional precision—that is, expenditures will not be rounded to the nearest dollar.

[6] Includes beneficiaries age 65 and older without ESRD.

[7] Includes beneficiaries with ESRD regardless of age.

Computer output: BY IG panel 1: i02tb2_E&M_allow, i02tb3_E&M_visits, i02tb4mp_hosp_adm, i02tb5mp_expend, i02tb7_subpopulation; BY IG panel 2: r34tb2_Allow_chrg.out, r34tb3_EM_lines.out, r34tb4_discharges.out, r34tb5_expend.out, r34tb7_subpopulation.out; PY2 IG panel 1 and panel 2: r33tb2_table2.out, r33tb3_table3_em_vis.out, r33tb4_table4_hosp_adm.out, r33tb5_table5_exp.out, r33tb7_subpopulation.out; BY CG panel 1: i03tb2_EM_vis, i03tb3mp_hosp_adm, i03tb4mp_expend, i03tb6_demogrphic; BY CG panel 2: i04tb2_EM_visits, i04tb3mp_hosp_adm, i04tb4mp_expend, i04tb6_demogrphic; PY2 CG: r37tb2_EM_Allow.out, r37tb3_HOSP_ADM.out, 37tb4_expend.out, r37tb6_subpopulation.out.

SOURCE: RTI analysis of July 2008–June 2011 100% Medicare claims files and enrollment datasets.

Reference Table 5
Distribution of Indiana Health Information Exchange assigned beneficiary residence by demonstration area counties, PY1

County name	County number[1]	BY Intervention Group Panel 1	PY1 Intervention Group Panel 1
Boone	15050	1.5	1.5
Hamilton	15280	7.0	7.1
Hancock	15290	3.0	2.9
Hendricks	15310	4.2	4.3
Johnson	15400	5.6	5.6
Madison	15470	11.4	11.3
Marion	15480	38.1	37.3
Morgan	15540	2.8	2.8
Shelby	15720	1.4	1.4
Other Indiana counties	—	25.1	25.8

NOTES:

Performance year 1 (PY1): July 1, 2009–June 30, 2010.

Base year (BY) panel 1: July 1, 2008–June 30, 2009.

[1] State and county codes used by the Social Security Administration.

Computer output: i02tb8 (BY IG), i01tb8 (PY1 IG).

SOURCE: RTI analysis of July 2008–June 2010 100% Medicare claims files and enrollment datasets.

Reference Table 6
Distribution of Indiana Health Information Exchange assigned beneficiary residence by demonstration area counties, PY2

County name	County number[1]	BY Intervention Group Panel 1	BY Intervention Group Panel 2	PY2 Intervention Group Panel 1	PY2 Intervention Group Panel 2	PY2 Intervention Group (Combined Panels)[2]
Boone	15050	1.5	2.7	1.5	2.5	1.8
Hamilton	15280	7.0	8.3	7.1	8.2	7.4
Hancock	15290	3.0	2.0	2.8	2.1	2.6
Hendricks	15310	4.2	3.9	4.4	3.8	4.2
Johnson	15400	5.6	1.6	5.8	1.6	4.7
Madison	15470	11.4	2.9	11.3	2.7	9.1
Marion	15480	38.1	21.6	36.7	21.4	32.8
Morgan	15540	2.8	1.3	3.1	1.2	2.6
Shelby	15720	1.4	0.5	1.5	0.5	1.3
Other Indiana counties	—	25.1	55.2	25.6	56.0	33.5

NOTES:

Performance year 2 (PY2): July 1, 2010–June 30, 2011.

Base year (BY) panel 1: July 1, 2008–June 30, 2009.

BY panel 2: July 1, 2009–June 30, 2010.

[1] State and county codes used by the Social Security Administration.

[2] The combined panel measures are estimated by calculating the weighted sum of the panel 1 and panel 2 measures. The beneficiary month weight for panel 1 in PY2 = 0.74; the beneficiary month weight for panel 2 in PY2 = 0.26. The same beneficiary month weights are used to calculate the combined standardized target and the combined actual expenditures in the savings calculation, as shown in Reference Table 8.

Computer output: i02tb8_service_area (BY IG panel 1), r34tb8_Service_Area.out (BY IG panel 2), r33tb8_serv_area.out (PY2 IG panel 1 and panel 2).

SOURCE: RTI analysis of July 2008–June 2011 100% Medicare claims files and enrollment datasets.

Reference Table 7
Medicare Health Care Quality Demonstration performance payment results for the Indiana Health Information Exchange, PY1

Component	Baseline, Panel 1[a]	PY1, Panel 1[b]
IG beneficiaries		
A—PBPM expenditures	$793.89	$834.27
B—Demographic factor	0.99561	0.99858
C—Standardized PBPM expenditures	$797.39	$835.46
D—Number of beneficiary months	1,383,022	1,433,639
CG beneficiaries		
E—PBPM expenditures	$789.40	$821.82
F—Demographic factor	1.02103	1.02710
G—Standardized PBPM expenditures	$773.15	$800.14
H—Number of beneficiary months	4,138,824	3,973,556
Performance payment results		
I—Standardized expenditure ratio	1.031	—
J—Standardized target	—	$825.23
K—PBPM standardized actual expenditures	—	$835.46
L—Beneficiary month weight	—	1
M—Combined standardized target	—	$825.23
N—Combined actual expenditures	—	$835.46
O—Target minus actual (gross savings)	—	−$10.23
P—Minimum savings requirement percentage	**—**	**1.78%**
Q—Minimum savings requirement	—	$14.72
R—Net savings	—	−$24.95
S—Net savings cap	—	$0.00
T—Gross savings cap	—	$0.00
U—Target cap	—	$0.00
V—Shared savings	—	$0.00
W—Performance payment not contingent on quality performance	—	$0.00
X—Maximum performance payment for quality	—	$0.00
Y—Percentage of quality targets met	—	57.14%
Z—Performance payment for quality	—	$0.00
AA—Earned performance payment (PBPM)	—	$0.00
AB—Total earned performance payment	—	$0.00
AC—Medicare savings before award	—	—
AD—Medicare savings after award	—	—

(continued)

Reference Table 7 (continued)
Medicare Health Care Quality Demonstration performance payment results for the Indiana Health Information Exchange, PY1

NOTES: General: CG, comparison group; IG, intervention group; PBPM, per beneficiary per month; PY1, performance year 1. Statistics presented in this table are rounded for presentation purposes. Performance payment calculations use additional precision. All dollar values, with the exception of the total earned performance payment (AB) and Medicare savings (AC and AD), are PBPM values.

Notes on columns:

[a] Baseline for panel 1 is the period July 1, 2008 through June 30, 2009.

[b] PY1 for panel 1 is the period July 1, 2009 through June 30, 2010.

Notes on rows:

A—RTI calculations with BY and PY1 Medicare claims and enrollment data for beneficiaries assigned to the IG in panel 1 and the baseline.

B—Demographic factor calculated by factors provided by the Office of the Actuary (Social Security) (OACT).

C—Expenditures divided by demographic factor (A / B).

D—Number of beneficiaries assigned to the IG in panel 1 in the BY and PY1.

E—RTI calculations with BY and PY1 Medicare claims and enrollment data for beneficiaries assigned to the CG in panel 1 and the baseline.

F—Demographic factor calculated by factors provided by OACT.

G—Expenditures divided by demographic factor (E / F).

H—Number of beneficiaries assigned to the CG in panel 1 in BY and PY1.

I—The ratio of standardized IG expenditures in baseline period to standardized CG expenditures in baseline period ([C for Baseline] / [G for Baseline]).

J—The product of the standardized expenditure ratio and standardized expenditures of the CG in the performance period (I x [G in performance period]).

K—Expenditures divided by demographic factor (A / B).

L—For panel 1: the number of beneficiary months in panel 1 for PY1 divided by the sum of the number of beneficiary months in panel 1 ([D PY1 panel 1]/[D PY3 panel 1]).

M—Equal to [J for panel 1] × [L for panel 1].

N—Equal to [K for panel 1] × [L for panel 1].

O—Target minus actual expenditures, which is equal to gross savings (M − N).

P—**Minimum savings requirement percentage is based on the 95% confidence interval for the difference between actual expenditures for the IG and the expenditure target.**

Q—The product of the minimum savings requirement percentage and target expenditures (M × P).

R—The difference between gross savings and the minimum savings requirement (O − Q).

S—Equal to 80% of net savings (0.80 × R).

T—Equal to 50% of gross savings (0.50 × O).

U—Equal to 5% of target expenditures (0.05 × M).

V—If net savings (R) are positive, the lesser of the gross savings cap, net savings cap, and target cap (lesser of S, T, and U). If net savings are negative, 0.

W—Equal to 50% of shared savings in PY1 (V × 0.50).

X—Equal to 50% of shared savings in PY1 (V × 050).

Y—Calculated by the Indiana Health Information Exchange (IHIE) on the basis of quality performance.

Z—Product of the percentage of quality targets met and the maximum performance payment for quality (Y × X).

AA—Sum of performance payment for efficiency and performance payment for quality (W + Z).

AB—Equal to total earned performance payment (PBPM) multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (AA × D).

AC—Equal to PBPM gross savings multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (O × D).

AD—Equal to Medicare savings before award minus the award amount (AC – AB).

Reference Table 8
Medicare Health Care Quality Demonstration performance payment results for the Indiana Health Information Exchange, PY2

Component	Baseline, Panel 1[a]	PY2, Panel 1[b]	Baseline, Panel 2[c]	PY2, Panel 2[b]	Combined Panels[d]
IG beneficiaries					
A—PBPM expenditures	$793.89	$882.29	$916.16	$914.58	—
B—Demographic factor	0.99561	1.00345	1.03150	1.01810	—
C—Standardized PBPM expenditures	$797.39	$879.25	$888.18	$898.32	—
D—Number of beneficiary months	1,383,022	1,427,123	507,844	511,526	1,938,649
CG beneficiaries					
E—PBPM expenditures	$789.40	$844.84	$821.82	$844.84	—
F—Demographic factor	1.02103	1.02827	1.02710	1.02827	—
G—Standardized PBPM expenditures	$773.14	$821.62	$800.14	$821.62	—
H—Number of beneficiary months	4,138,824	4,015,189	3,973,556	4,015,189	4,015,189
Performance payment results					
I—Standardized expenditure ratio	1.031	—	1.110	—	—
J—Standardized target	—	$847.38	—	$912.02	—
K—PBPM standardized actual expenditures	—	$879.25	—	$898.32	—
L—Beneficiary month weight	—	0.74	—	0.26	—
M—Combined standardized target	—	—	—	—	$864.44
N—Combined actual expenditures	—	—	—	—	$884.28
O—Target minus actual (gross savings)	—	—	—	—	−$19.85
P—Minimum savings requirement percentage	**—**	**—**	**—**	**—**	**1.62%**
Q—Minimum savings requirement	—	—	—	—	$13.99
R—Net savings	—	—	—	—	−$33.83
S—Net savings cap	—	—	—	—	—
T—Gross savings cap	—	—	—	—	—
U—Target cap	—	—	—	—	$43.22
V—Shared savings	—	—	—	—	$0.00
W—Performance payment not contingent on quality performance	—	—	—	—	$0.00
X—Maximum performance payment for quality	—	—	—	—	$0.00
Y—Percentage of quality targets met	—	—	—	—	40%
Z—Performance payment for quality	—	—	—	—	$0.00
AA—Earned performance payment (PBPM)	—	—	—	—	$0.00
AB—Total earned performance payment	—	—	—	—	$0.00
AC—Medicare savings before award	—	—	—	—	—
AD—Medicare savings after award	—	—	—	—	—

(continued)

Reference Table 8 (continued)
Medicare Health Care Quality Demonstration performance payment results for the Indiana Health Information Exchange, PY2

NOTES: General: CG, comparison group; IG, intervention group; PBPM, per beneficiary per month; PY2, performance year 2. Statistics presented in this table are rounded for presentation purposes. Performance payment calculations use additional precision. All dollar values, with the exception of the total earned performance payment (AB) and Medicare savings (AC and AD), are PBPM values.

Notes on columns:

[a] Baseline for panel 1 is the period July 1, 2008–June 30, 2009.
[b] PY2 for panel 1 and panel 2 is the period July 1, 2010–June 30, 2011.
[c] Baseline for panel 2 is the period July 1, 2009–June 30, 2010.
[d] Combined panel values for the number of beneficiary months are for PY2.

Notes on rows:

A—RTI calculations with BY and PY2 Medicare claims and enrollment data for beneficiaries assigned to the IG in panel 1 and panel 2 and their baseline.
B—Demographic factor calculated by factors provided by the Office of the Actuary (Social Security) (OACT).
C—Expenditures divided by demographic factor (A / B).
D—Number of beneficiaries assigned to the IG in panel 1 and panel 2 in BY and PY2.
E—RTI calculations with BY and PY2 Medicare claims and enrollment data for beneficiaries assigned to the CG in panel 1 and panel 2 and their baseline.
F—Demographic factor calculated by factors provided by OACT.
G—Expenditures divided by demographic factor (E / F).
H—Number of beneficiaries assigned to the CG in panel 1 and panel 2 in baseline period and performance period.
I—The ratio of standardized IG expenditures in baseline period to standardized CG expenditures in baseline period ([C for Baseline]/[G for Baseline]).
J—The product of the standardized expenditure ratio and standardized expenditures of the CG in the performance period (I x [G in Performance Period]).
K—Expenditures divided by demographic factor (A / B).
L—For panel 1: the number of beneficiary months in panel 1 for PY2 divided by the sum of the number of beneficiary months in panel 1 and panel 2 for PY2 ([D PY2 panel 1]/{[D PY2 panel 1]+[D PY2 panel 2]}). For panel 2: the number of beneficiary months in panel 2 for PY2 divided by the sum of the number of beneficiary months in panel 1 and panel 2 for PY2 ([D PY2 panel 2]/{[D PY2 panel 1]+[D PY2 panel 2]}).
M—The sum of ([J for panel 1] × [L for panel 1]) + ([J for panel 2] × [L for panel 2]).
N—The sum of ([K for panel 1] × [L for panel 1]) + ([K for panel 2] × [L for panel 2]).
O—Target minus actual expenditures, which is equal to gross savings (M − N).
P—**Minimum savings requirement percentage is based on the 95% confidence interval for the difference between actual expenditures for the IG and the expenditure target.**
Q—The product of the minimum savings requirement percentage and target expenditures (M × P).
R—The difference between gross savings and the minimum savings requirement (O − Q).
S—Equal to 80% of net savings (0.80 x R).
T—Equal to 50% of gross savings (0.50 x O).
U—Equal to 5% of target expenditures (0.05 × M).
V—If net savings (R) are positive, the lesser of the gross savings cap, net savings cap, and target cap (lesser of S, T, and U). If net savings are negative, 0.
W—Equal to 40% of shared savings in PY2 (V x 0.40).
X—Equal to 60% of shared savings in PY2 (V x 0.60).
Y—Calculated on the basis of quality performance.
Z—Product of the percentage of quality targets met and the maximum performance payment for quality (Y × X).
AA—Sum of performance payment for efficiency and performance payment for quality (W + Z).
AB—Equal to total earned performance payment (PBPM) multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (AA×[D for Combined Panels]).
AC—Equal to PBPM gross savings multiplied by the number of beneficiary months incurred by beneficiaries assigned to IG during the performance period (O × [D for Combined Panels]).
AD—Equal to Medicare savings before award minus the award amount (AC − AB).