

HCAHPS Update Training

HCAHPS Update Training

March 2013



HCAHPS Update Training

Welcome!

In the Update Training session, we will present:

- HCAHPS Program Updates
- Updates to *HCAHPS Quality Assurance Guidelines V8.0*
- Review of Selected HCAHPS Data Topics
- New Survey Items and Research Findings



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HCAHPS Program Updates



Overview of Updates

- HCAHPS Never Rests
- Key Dates in 2013
- HCAHPS and Hospital VBP
- New Patient Surveys Being Developed
- HCAHPS Survey in Languages other than English
- Hospital Compare Footnote Changes

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HCAHPS Never Rests

- December 2012 publicly reported scores are based on more than **2.9 million completed surveys** from patients at **3,892 hospitals**
- **Every day** more than **7,900 patients complete** the HCAHPS survey

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Upcoming for HCAHPS in 2013

April 3	Data Submission Deadline
April 4-10	Review and Correction Period for Fourth Quarter 2012 data
July 1	HCAHPS File Specifications Version 3.5
July 3	Data Submission Deadline
July 4-10	Review and Correction Period for First Quarter 2013 data
October 2	Data Submission Deadline
October 3-9	Review and Correction Period for Second Quarter 2013 data
October	New HCAHPS Footnote Numbering on Hospital Compare



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HCAHPS and Hospital VBP (*Briefly*)

- HCAHPS comprises 30% of Hospital VBP **Total Performance Score** (TPS) in FY 2014 & FY 2015
 - FY 2014 **Baseline** Period: April 2010 – December 2010
 - FY 2014 **Performance** Period: April 2012 – December 2012
- January – December 2013
 - FY 2015 HCAHPS Performance Period
 - FY 2017 HCAHPS Baseline Period
- Information on calculating HCAHPS Hospital VBP Domain Score

http://www.hcahpsonline.org/Files/Hospital%20VBP%20Domain%20Score%20Calculation%20Step-by-Step%20Guide_V2.pdf



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Key Events for Hospital VBP in 2013

- | | |
|-----------|---|
| March | FY 2015 Baseline Report Issued |
| August | FY 2014 Incentive Adjustment Issued |
| August | 30-day FY 2014 Correction and Appeals Period |
| October 1 | FY 2014 Value-based Payment Incentive Applies to Discharges |



New Survey Development at CMS

CMS developing experience of care surveys for other health care settings:

- Emergency Room
- Hospital Outpatient Surgery Department/Ambulatory Surgery Center
- Hospice
- Accountable Care Organization/Physician Practices
- Health Insurance Exchange
- National implementation of In-Center Hemodialysis CAHPS in 2014

HCAHPS Survey in Languages Other than English

The HCAHPS Survey is available in four languages other than English:

- Spanish (mail and telephone)
- Chinese (mail)
- Russian (mail)
- Vietnamese (mail)

CMS strongly recommends that hospitals who serve a significant number of patients who speak these languages offer the HCAHPS Survey in these languages

HCAHPS Survey in Languages Other than English *(cont'd)*

**CMS will release a Portuguese translation
of the HCAHPS Survey in Fall 2013**

- Mail Mode only
- Survey vendor should work with hospital clients who may desire Portuguese survey

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Hospital Compare Footnotes Changes

- Effective for October 2013 Public Reporting

- *no changes to Footnotes 6 and 11*

Revised Footnotes	Current Footnotes
1: The number of cases/patients is too few to report.	9: No or very few patients were eligible for the HCAHPS survey.
3: Results are based on a shorter time period than required.	7: Survey results are based on less than 12 months of data.
5: No data are available from the hospital for this reporting period.	8: Survey results are not available for this reporting period.
10: Very few patients were eligible for the HCAHPS survey. The scores shown reflect fewer than 50 completed surveys. Use these scores with caution, as the number of surveys may be too low to reliably assess hospital performance.	Change from number 12 to number 10.

More Information on HCAHPS

- Registration, applications, background information, reports, and HCAHPS *Executive Insight*:

www.hcahpsonline.org

- Submitting HCAHPS data:

www.qualitynet.org

- Publicly reported HCAHPS results:

www.medicare.gov/hospitalcompare

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Updates to *HCAHPS Quality Assurance Guidelines (QAG) V8.0*



Introduction and Overview

- **Update: CMS Adopts 32 Question CAHPS Hospital Survey (HCAHPS) (formerly known as the HCAHPS Expanded Survey)**
 - Only one version of the HCAHPS Survey available
 - Required for use beginning with January 1, 2013 patient discharges and forward

Participation and Program Requirements

- Update: Minimum Survey Requirements
 - In the *QAG V8.0* the Minimum Survey Requirements to participate in HCAHPS have been revised
 - New hospitals/survey vendors need to meet these requirements to become an “Approved” HCAHPS survey vendor
 - Survey vendors who reapply to become an “Approved” survey vendor need to meet these requirements



Participation and Program Requirements *(cont'd)*

- Update: Contracts with Hospitals—Survey Vendor Requirement
 - Approved survey vendors are required to maintain active contract(s) with client hospital(s)

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Participation and Program Requirements *(cont'd)*

- Update: Contracts with Hospitals—Survey Vendor Requirements *(cont'd)*
 - If a survey vendor does not have any contracted client hospitals for a period of two consecutive years (24 months), then survey vendor's "approved" status for HCAHPS survey administration will be withdrawn
 - For currently approved HCAHPS survey vendors, this 24 month period will begin on April 1, 2013
 - For newly approved HCAHPS survey vendors, the 24 month period in which the vendor has no clients will begin on the participation approval notification date



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Participation and Program Requirements *(cont'd)*

- Reminder: Key Personnel
 - If the HCAHPS Project Manager/Director leaves the self-administering hospital or survey vendor organization, HCAHPS Technical Assistance must be contacted immediately
 - Via email at hcahps@azqio.sdps.org
 - Via telephone 1-888-884-4007
 - Assign appropriate back-up responsibilities to organizational staff for coverage of key staff



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Communication & Technical Support

- Reminder: QualityNet Help Desk contact information
 - For data submission upload issues via My QualityNet and navigating the QualityNet Web site (<http://www.QualityNet.org>), please contact the QualityNet Help Desk
 - Via email at qnetsupport@sdps.org
 - Via telephone at 1-866-288-8912



Communication & Technical Support *(cont'd)*

- Reminder: Hospital Value Based Purchasing Contact Information *(cont'd)*
 - For information pertaining to Hospital Value Based Purchasing (VBP), please visit the CMS Web site <http://www.cms.gov/Hospital-Value-Based-Purchasing>
 - For questions related to hospitals' Hospital Value Based Purchasing Percentage Payment Report, please contact the QualityNet Help Desk
 - Via email at qnetsupport@sdps.org
 - Via telephone at 1-866-288-8912

Sampling

- **Clarification: Sampling Exclusions**

- No-Publicity” patients – Patients who request that they not be contacted
- Court/Law enforcement patients (i.e., prisoners); **this does not include patients residing in halfway houses**
- Patients with a foreign home address (the U.S. territories – Virgin Islands, Puerto Rico, Guam, American Samoa, and Northern Mariana Islands are not considered foreign addresses and therefore, are not excluded)
- Patients discharged to hospice care (Hospice-home or Hospice-medical facility)
- Patients who are excluded because of state regulations
- Patients discharged to nursing homes and skilled nursing facilities

Sampling *(cont'd)*

- Clarification: Age calculation for HCAHPS eligibility
 - Eighteen (18) years or older at the time of admission
 - **Age eligibility is calculated as age at time of hospital admission, using the full date of birth (e.g., 06/17/1914), not just birth year**

Sampling *(cont'd)*

- **Clarification: Sampling Exclusions and Ineligibility Documentation**
 - Hospitals/Survey vendors must retain documentation that verifies all exclusions **and ineligible patients**. This documentation is subject to review.

Sampling *(cont'd)*

- **Clarification: De-Duplication by Household**
 - Sample only one patient per household in a given calendar month
 - De-duplicate by address and/or telephone number from medical records and patient unique IDs within each month
 - Do not de-duplicate by address and/or telephone number for health care facilities **and halfway houses**

Sampling *(cont'd)*

- **Update: MS-DRG Codes**
 - Updated to **MS-DRG V.30**
 - Strongly recommend use of MS-DRG V.30 codes to assign Service Line
 - Validate that Service Line is assigned appropriately

Survey Administration

- **Update: All modes of survey administration**
 - Only one version of the HCAHPS Survey available beginning with January 1, 2013 discharges and forward
 - Survey instrument question numbering
 - Questions 1-25 are Core questions
 - Questions 26-32 are “About You” questions

Survey Administration *(cont'd)*

- Clarification: Copyright Statement for the HCAHPS Survey
 - The HCAHPS Survey **must** include the following copyright statement, preferably on the last page of the survey:

“Questions 1-22 and 26-32 are part of the HCAHPS Survey and are works of the U.S. Government. These HCAHPS questions are in the public domain and therefore are NOT subject to U.S. copyright laws. The three Care Transitions Measure® questions (Questions 23-25) are copyright of The Care Transitions Program® (www.caretransitions.org).”

Survey Administration *(cont'd)*

- Updates: Mail Only and Mixed Modes
 - Cover letter requirement
 - **The phrase “discharged on” must be used in the cover letter**
 - Cannot use language such as “visit date” or “stayed on”
 - Cover letter and questionnaire formatting requirements; previously optional, now required
 - **Survey materials must be**
 - In a readable font, e.g. Arial, Times New Roman
 - Font size of 10 point or larger

Survey Administration *(cont'd)*

- Clarification: Mail Only and Mixed Modes *(cont'd)*
 - Questionnaire formatting for supplemental questions
 - Core questions must be placed first in the survey
 - “About You” questions must be placed anywhere after the Core questions
 - If supplemental questions are placed between the Core and “About You” questions, the following transition phrase must be placed before the “About You” questions:
 - **“This next set of questions is about you.”**
 - If adding supplemental questions after the “About You” questions, a transition phrase must be placed before the supplemental questions

Survey Administration *(cont'd)*

- Reminder: Telephone Interviewing Systems
 - Do not pre-program a specific response category as the default option
 - Every question should have a “MISSING/DON'T KNOW” option available
 - All underlined content must be emphasized
 - Skip patterns and conventions should be programmed into system

Survey Administration *(cont'd)*

- Clarification: Telephone and IVR Monitoring
 - Supervisors must monitor at least 10 percent of all attempted surveys, **not just completed surveys**
 - Hospitals/Survey vendors who subcontract telephone survey administration **must monitor 10 percent of their subcontractor's calls and call attempts**

Survey Administration *(cont'd)*

- Clarification: Telephone and IVR Modes (6th Telephone Attempt)
 - A 6th telephone attempt is permitted only when the patient asks to be called back during the 5th telephone attempt
 - The additional 6th telephone call attempt should be coded as “5—Fifth telephone attempt” for data file submission

Data Specifications & Coding

- **Update: File Specifications Changed to Version 3.5**
 - Appendix L – Data File Structure Version 3.5
 - Appendix M – XML File Layout Version 3.5

Note: Version 3.5 applies to 3Q 2013 discharges and forward

Data Specifications & Coding *(cont'd)*

Update: Definition of a Completed Survey

- At least 50 percent of the questions applicable to all patients are answered
- Questions applicable to all patients are *included*
 - 1 through 10, 12, 15, 18, and 21-**25**
- Questions not applicable to all patients (e.g., skip pattern and “About You” questions) are *excluded*
 - HCAHPS Survey: 11, 13, 14, 16, 17, 19, 20, and **26–32**

Data Specifications & Coding *(cont'd)*

- Reminder: For surveys with “Final Survey Status” codes of “1 – Completed Survey” or “6 – Non-response: Break-off”
 - All survey questions must have an entered value
 - Appendix L: Data File Structure Version 3.5 (effective 3Q 2013) provides valid values

Data Specifications & Coding *(cont'd)*

- Reminder: Final Survey Status
 - Must never be coded as “M–Missing”
 - Lag time must be recorded and submitted for ALL “Final Survey Status” disposition codes

Data Specifications & Coding *(cont'd)*

- Clarification: Survey Language
 - Based on the language in which the survey was administered, **even when a patient does not complete the survey**
 - “1 – English” (All modes)
 - “2 – Spanish” (Mail Only, Telephone Only, and Mixed)
 - “3 – Chinese” (Mail Only)
 - “4 – Russian” (Mail Only)
 - “5 – Vietnamese” (Mail Only)
 - **All HCAHPS Final Survey Status codes should contain the actual Survey Language in which survey administered**
 - Do NOT use code “8 – Not Applicable”

Data Specifications & Coding *(cont'd)*

- **Update: New Field—Supplemental Question Count**
 - Count of supplemental questions that hospitals/survey vendors add to the survey for each patient
 - Must be submitted when the “Final Survey Status” codes are “1 – Completed survey” or “6 – Non-Response: Break-off”
 - Strongly recommend including count for all “Final Survey Status” codes

Data Specifications & Coding *(cont'd)*

- Clarification: Number of Survey Attempts
 - Required for all four modes of survey administration
 - **Code with the attempt that corresponds to when the final survey status is determined**
 - The “Number Survey Attempts – Telephone” is required when “Survey Mode” in the Header Record is “2 – Telephone Only” or “4 – IVR.” It is also required when “Survey Mode” in the Header Record is “3 – Mixed mode” **and** “Survey Completion Mode” is “2 – Mixed mode-phone.”
 - The “Number Survey Attempts – Mail” is required when “Survey Mode” in the Header Record is “1 – Mail Only”

Frequently Asked Questions (FAQ's)

- **Update: Appendix J, QAG V8.0**
 - New Question: "As someone with Power of Attorney for the patient, may I complete the survey?"
 - Response: "No, the HCAHPS Survey does not allow proxy respondents."

Oversight Activities

- **Update: Quality Assurance Plan (QAP)**
 - Hospitals/Survey vendors must complete QAP updates by **April 12, 2013**
 - **Notify HCAHPS Technical Assistance via email that QAP has been updated**
 - Submit updated QAP to HCAHPS Project Team **upon request**

Oversight Activities *(cont'd)*

- **Update: Survey Materials**
 - Submit formatted survey materials for HCAHPS Survey to HCAHPS Technical Assistance by **April 12, 2013**
 - Hospital/Survey vendor must submit survey materials for all modes of the HCAHPS Survey (Mail Only, Telephone Only, Mixed, or IVR) **that they employ**

Exceptions Requests

- **Update: Revisions to the HCAHPS Exceptions Request Process**
 - All currently approved Exceptions Requests approved prior to October 1, 2012 **will expire on September 30, 2013**
 - Requests to renew currently approved Exceptions Requests should be submitted at least 60 days before the September 30, 2013 expiration date (or by August 1, 2013) to allow time for review and processing
 - Exceptions Requests approved from October 1, 2012 and forward are now limited to a 2-year timeframe. The 2-year time period will begin from the date of approval.
 - Hospital CMS Certification Numbers (CCNs) must be included on the Exception Request Form

Exceptions Requests *(cont'd)*

- **Reminder: Revisions to the HCAHPS Exceptions Request Process**
 - Reviews by the HCAHPS Project Team will include an assessment of:
 - the nature, scope and consequences of the proposed exception
 - the methodological soundness of the proposed alternative(s) to the standard protocols
 - the potential for introducing bias
 - To request an exception, hospitals/survey vendors must complete and submit an Exceptions Request Form online via the HCAHPS Web site (www.hcahpsonline.org)

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Data Submission Timeline

Month of Patient Discharges	Data Submission Deadline	Review and Correct Period	File Specifications Version
October, November and December 2012	April 3, 2013	April 4 - 10, 2013	Version 3.4
January, February and March 2013	July 3, 2013	July 4 - 10, 2013	Version 3.4
April, May and June 2013	October 2, 2013	October 3 - 9, 2013	Version 3.4
July, August and September 2013	January 2, 2014	January 3 - 9, 2014	Version 3.5

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Questions?



Review of Selected HCAHPS Data Topics

Data Processing Refresher

- Disproportionate Stratified Random Sample (DSRS)
- Patient-Mix Adjustment (PMA)
- Official HCAHPS Scores

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DSRS Refresher



Steps of Sampling Process

- A. Population (All Patient Discharges)
- B. Identify Initially Eligible Patients
- C. Remove Exclusions
- D. Perform De-Duplication
- E. HCAHPS Sample Frame
- F. Draw Sample**

See *QAG V8.0*, HCAHPS Sampling Protocol Illustration

Methods of Sampling

- Simple Random Sample (SRS)
 - Patients randomly selected from a larger group
- Proportionate Stratified Random Sample (PSRS)
 - Equal sampling ratio used for all strata
- **Disproportionate Stratified Random Sample (DSRS)**
 - Unequal sampling ratios used for strata (appropriate weights are created during score calculation)

Methods of Sampling *(cont'd)*

- **Disproportionate Stratified Random Sample (DSRS)**
 - Patient discharge population divided into strata
 - Dissimilar sampling ratios applied across strata
 - *Some patients have higher probability of selection (not equiprobable)*
 - Strata defined at the beginning of a calendar quarter
 - Sample a minimum of 10 eligible discharges in every stratum in every month
 - Additional information collected to weight data
 - Exceptions Request Form required

Methods of Sampling *(cont'd)*

- **DSRS Basic Example:
Hospital Unit as strata
definition**

- A monthly sample is pulled from each of five hospital units (Unit A, Unit B, Unit C, Unit D, and Unit E)
- Sample ratios: 25% of eligible discharges from Unit A, 50% from Unit B and E, 40% from Unit C, and 30% from Unit D

Stratum	Unit	Eligible Discharges	Sampling Rate	Sampled Patients
1	A	100	0.25	$100 * 0.25 = 25$
2	B	60	0.50	$60 * 0.50 = 30$
3	C	70	0.40	$70 * 0.40 = 28$
4	D	80	0.30	$80 * 0.30 = 24$
5	E	50	0.50	$50 * 0.50 = 25$

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DSRS Strata

- **Submitted Strata**
 - Must contain at least 10 sampled discharges for accurate performance weighting
- **Strata with fewer than 10 patients**
 - Smaller strata may be used by hospitals for internal analyses

Dealing with Small Strata

- Option 1: Increase sampling rate (if possible) of smaller strata so that all submitted strata achieve at least 10 sampled patients
- Option 2: Pool eligible discharges from multiple initially defined strata
- Option 3: Identify strata to sample at the same rate so they can be submitted as a single stratum

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Dealing with Small Strata (*cont'd*)

- Option 1: Increase sampling rate

		INITIALLY DEFINED Strata			REVISED Strata: Increase Unit C's Sampling Rate		
Stratum	Unit	Eligible Discharges	Sampling Rate	Sampled Patients	Eligible Discharges	Sampling Rate	Sampled Patients
1	A	100	0.25	$100 * 0.25 = 25$	100	0.25	$100 * 0.25 = 25$
2	B	60	0.50	$60 * 0.50 = 30$	60	0.50	$60 * 0.50 = 30$
3	C	20	0.40	$20 * 0.40 = 8$	20	0.80	$20 * 0.80 = 16$
4	D	80	0.30	$80 * 0.30 = 24$	80	0.30	$80 * 0.30 = 24$
5	E	50	0.50	$50 * 0.50 = 25$	50	0.50	$50 * 0.50 = 25$

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Dealing with Small Strata (*cont'd*)

- Option 2: Pool eligible discharges

		INITIALLY DEFINED Strata			REVISED Strata: Unit C combined with Unit B		
Stratum	Unit	Eligible Discharges	Sampling Rate	Sampled Patients	Eligible Discharges	Sampling Rate	Sampled Patients
1	A	100	0.25	$100 * 0.25 = 25$	100	0.25	$100 * 0.25 = 25$
2	B	60	0.50	$60 * 0.50 = 30$	66	0.50	$66 * 0.50 = 33$
3	C	6	1.00	$6 * 1.00 = 6$			
4	D	80	0.30	$80 * 0.30 = 24$	80	0.30	$80 * 0.30 = 24$
5	E	50	0.50	$50 * 0.50 = 25$	50	0.50	$50 * 0.50 = 25$

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Dealing with Small Strata *(cont'd)*

- Option 3: Same sample rate submitted as single stratum

		INITIALLY DEFINED Strata			REVISED Strata: For Data Submission		
Stratum	Unit	Eligible Discharges	Sampling Rate	Sampled Patients	Eligible Discharges	Sampling Rate	Sampled Patients
1	A	100	0.25	$100 * 0.25 = 25$	100	0.25	$100 * 0.25 = 25$
2	B	60	0.50	$60 * 0.50 = 30$	70	0.50	$60 * 0.50 = 35$
3	C	8	1.00	$8 * 1.00 = 8$			
4	D	7	1.00	$7 * 0.50 = 4$	15	1.00	$15 * 1.00 = 15$
5	E	50	0.50	$50 * 0.50 = 25$	50	0.50	$50 * 0.50 = 25$

Recap of DSRS

- **DSRS Reminders**
 - All eligible patients have a chance to be sampled
 - Sampling rates differ across strata
- **Small Strata**
 - Increase sampling rate
 - Pool small strata into larger ones
 - Use same sampling rates for small strata

Patient-Mix Adjustment (PMA) Refresher



PMA Overview

- Process HCAHPS Data
 - Identify patients for patient-mix adjustment
- Patient-Mix Calculation Example
 - Calculate means for each PMA variable
 - Use the PMA Equation to determine Hospital PMA

Process HCAHPS Data

Identify Patients for PMA:

- Eligible for HCAHPS
 - Re-check that returned surveys meet all eligibility criteria
- Lag Time < 85 days

Process HCAHPS Data *(cont'd)*

- Completed HCAHPS Survey
 - Patient responses to **at least 9** out of the 18 questions that are applicable to all patients (Q1-Q10, Q12, Q15, Q18, Q21-25)
- Only Completed surveys from Eligible patients are used for HCAHPS score calculations

PMA Calculation Example

- Calculate hospital means for:
 - Education
 - Overall Health
 - Non-English
 - Age Range Categories
 - Age by Service Line
 - **Service Line**
 - **Response Percentile**

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PMA Calculation Example: Service Line

Hospital A

- Create an indicator (0 or 1) variable for Maternity and Surgical (Medical is reference category):

Survey ID	Service Line	Maternity	Surgical
1	Surgical	0	1
2	Medical	0	0
3	Maternity	1	0
4	Medical	0	0
5	Maternity	1	0
6	Medical	0	0
7	Medical	0	0

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PMA Calculation Example: Service Line (*cont'd*)

Calculate Hospital A's mean for Maternity and Surgical variables

$$H_{\text{MAT}} = (0+0+1+0+1+0+0) / 7 = 2/7 = \mathbf{0.29}$$

$$H_{\text{SURG}} = (1+0+0+0+0+0+0) / 7 = 1/7 = \mathbf{0.14}$$

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PMA Calculation Example: Response Percentile

- A survey's **Lag Time** is required to create the PMA variable **Response Percentile**
- All completed surveys for a given month and hospital are ranked by **Lag Time**
 - **Lag Time**: Number of days between patient's discharge date and the date that data collection activities ended for the patient

$$\text{Response Percentile} = \frac{\text{Lag Time Rank}}{\text{Monthly Sample Size}}$$



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PMA Calculation Example: Response Percentile (*cont'd*)

Response Percentile for Hospital A

Response Percentile = Lag Time Rank / Monthly Sample Size

Survey ID	Month	Lag Time (in days)	Lag Time Rank (by month)	Monthly Sample Size	Response Percentile
1	January	21	1	9	1/9
2	January	34	2	9	2/9
3	February	8	1	11	1/11
4	February	12	2	11	2/11
5	March	29	2	8	2/8
6	March	6	1	8	1/8
7	March	30	3	8	3/8

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PMA Calculation Example: Response Percentile (*cont'd*)

Calculate Hospital A's mean Response Percentile for the quarter

$$\begin{aligned} H_{RPCT} &= [(1/9) + (2/9) + (1/11) + (2/11) + (2/8) \\ &\quad + (1/8) + (3/8)] / 7 \\ &= \mathbf{0.19} \end{aligned}$$

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3 Components Needed for Hospital PMA

- **Hospital means** for each patient-mix variable
- **National means** for each patient mix variable found on www.hcahpsonline.org
- Patient-level **Adjustments** for each patient-mix variable found on www.hcahpsonline.org

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PMA Means for Hospital A

$$H_{\text{EDUC}} = 3.14$$

$$H_{18-24} = 0.14$$

$$H_{\text{MAT}} = 0.29$$

$$H_{25-34} = 0.14$$

$$H_{\text{SURG}} = 0.14$$

$$H_{\text{HLTH}} = 3.43$$

$$H_{35-44} = 0.14$$

$$H_{45-54} = 0.00$$

$$H_{\text{MAT*AGE}} = 0.43$$

$$H_{\text{NENG}} = 0.29$$

$$H_{55-64} = 0.14$$

$$H_{\text{SURG*AGE}} = 0.86$$

$$H_{65-74} = 0.29$$

$$H_{\text{RPCT}} = 0.19$$

$$H_{75-84} = 0.00$$

<http://www.hcahpsonline.org/Files/Calculation%20of%20HCAHPS%20Scores.pdf>



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National Means for Patient-Mix Variables: Table 3 from www.hcahpsonline.org

Patient-Mix Adjustment (PMA)	National Mean
Education (per level) (1=8th grade or less and 6=More than 4-year college degree)	3.646
Self-Rated Health (per level) (1=Excellent and 5=Poor)	2.815
ER Admission ¹	0.442
Response Percentile (per 1% of response percentile)	16.3%
Non-English Primary Language	0.059
AGE	
Age 18-24	0.045
Age 25-34	0.106
Age 35-44	0.075
Age 45-54	0.116
Age 55-64	0.176
Age 65-74	0.214
Age 75-84	0.189
Age 85+ (REFERENCE)	0.081
SERVICE LINE	
Maternity	0.150
Surgical	0.341
Medical (REFERENCE)	0.509
INTERACTIONS	
Surgical Line * Age ²	1.808
Maternity Line * Age ²	0.377

http://www.hcahpsonline.org/files/March_2011_PMA_Web_Document_01-13-2011.pdf

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National Means for Patient-Mix Variables (from Table 3) *(cont'd)*

$$M_{\text{EDUC}} = 3.65$$

$$M_{18-24} = 0.05$$

$$M_{\text{MAT}} = 0.15$$

$$M_{25-34} = 0.11$$

$$M_{\text{SURG}} = 0.34$$

$$M_{\text{HLTH}} = 2.82$$

$$M_{35-44} = 0.08$$

$$M_{45-54} = 0.12$$

$$M_{\text{MAT*AGE}} = 0.38$$

$$M_{\text{NENG}} = 0.06$$

$$M_{55-64} = 0.18$$

$$M_{\text{SURG*AGE}} = 1.81$$

$$M_{65-74} = 0.21$$

$$M_{\text{RPCT}} = 0.16$$

$$M_{75-84} = 0.19$$

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Patient-Level Adjustments for Patient-Mix Variables: Table 1 from www.hcahpsonline.org

Patient-Mix Adjustment (PMA)	Comm. with Nurses	Comm. with Doctors	Responsiveness of Hosp. Staff	Pain Management	Comm. About Medicines	Cleanliness of Hosp. Env.	Quietness of Hosp. Env.	Discharge Information	Overall Hospital Rating	Recommend the Hospital
Education (per level) (1=8th grade or less and 6=More than 4-year college degree)	2.12%	1.81%	2.69%	2.60%	3.22%	2.10%	3.87%	0.89%	3.35%	1.28%
Self-Rated Health (per level) (1=Excellent and 5=Poor)	5.28%	4.96%	6.44%	6.72%	5.25%	4.13%	4.24%	1.32%	6.41%	5.52%
ER Admission ¹	0.85%	3.29%	1.57%	1.42%	1.89%	0.20%	1.35%	2.33%	1.28%	1.27%
Response Percentile (per 1% of response percentile)	0.20%	0.17%	0.23%	0.16%	0.17%	0.07%	0.03%	0.01%	0.18%	0.17%
Non-English Primary Language	-0.04%	-0.48%	-0.12%	-1.87%	-1.79%	0.72%	-5.80%	-2.04%	-7.49%	-6.11%
AGE										
Age 18-24	4.18%	3.95%	3.70%	5.93%	-9.27%	3.92%	-7.24%	-1.70%	17.87%	16.00%
...
Age 75-84	-3.04%	-2.81%	-4.19%	-3.66%	-5.02%	1.78%	0.00%	-1.53%	-1.70%	-0.34%
Age 85+ (REFERENCE)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SERVICE LINE										
Maternity	-6.27%	11.81%	-13.98%	-11.35%	-11.04%	3.81%	-10.86%	-7.83%	-11.58%	-12.93%
Surgical	1.64%	-9.18%	1.85%	-1.59%	-1.47%	0.06%	-0.21%	-5.82%	-4.20%	-3.66%
Medical (REFERENCE)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
INTERACTIONS										
Surgical Line * Age ²	-0.07%	0.98%	-0.31%	-0.38%	0.27%	-0.12%	0.05%	-0.06%	0.50%	0.42%
Maternity Line * Age ²	1.06%	1.52%	1.91%	1.62%	1.94%	-0.17%	1.25%	1.37%	1.84%	2.10%

http://www.hcahpsonline.org/files/March_2011_PMA_Web_Document_01-13-2011.pdf



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Patient-Level Adjustments for Patient-Mix Variables (from Table 1) *(cont'd)*

For *Communication with Nurses*:

$A_{\text{EDUC}} = 2.12\%$	$A_{18-24} = 4.18\%$	$A_{\text{MAT}} = -6.27\%$
	$A_{25-34} = 1.21\%$	$A_{\text{SURG}} = 1.64\%$
$A_{\text{HLTH}} = 5.28\%$	$A_{35-44} = -1.08\%$	
	$A_{45-54} = -3.24\%$	$A_{\text{MAT*AGE}} = 1.06\%$
$A_{\text{NENG}} = -0.04\%$	$A_{55-64} = -5.14\%$	$A_{\text{SURG*AGE}} = -0.07\%$
	$A_{65-74} = -5.06\%$	
$A_{\text{RPCT}} = 0.20\%$	$A_{75-84} = -3.04\%$	

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Using PMA Equation

PMA Equation:

$$\begin{aligned} \text{PMA} = & A_{\text{EDUC}} * (H_{\text{EDUC}} - M_{\text{EDUC}}) + A_{\text{HLTH}} * (H_{\text{HLTH}} - M_{\text{HLTH}}) + A_{\text{NENG}} * (H_{\text{NENG}} - M_{\text{NENG}}) \\ & + A_{\text{RPCT}} * (H_{\text{RPCT}} - M_{\text{RPCT}}) + A_{1824} * (H_{1824} - M_{1824}) + A_{2534} * (H_{2534} - M_{2534}) \\ & + A_{3544} * (H_{3544} - M_{3544}) + A_{4554} * (H_{4554} - M_{4554}) + A_{5564} * (H_{5564} - M_{5564}) \\ & + A_{6574} * (H_{6574} - M_{6574}) + A_{7584} * (H_{7584} - M_{7584}) + A_{\text{MAT}} * (H_{\text{MAT}} - M_{\text{MAT}}) \\ & + A_{\text{SURG}} * (H_{\text{SURG}} - M_{\text{SURG}}) + A_{\text{MAT*AGE}} * (H_{\text{MAT*AGE}} - M_{\text{MAT*AGE}}) \\ & + A_{\text{SURG*AGE}} * (H_{\text{SURG*AGE}} - M_{\text{SURG*AGE}}) \end{aligned}$$

Net Adjustment for Hospital A:

$$\begin{aligned} \text{PMA} = & 0.021 * (3.14 - 3.65) + 0.053 * (3.43 - 2.82) + -0.000 * (0.29 - 0.06) \\ & + 0.002 * (0.19 - 0.16) + 0.042 * (0.14 - 0.05) + 0.012 * (0.14 - 0.11) \\ & + -0.011 * (0.14 - 0.08) + -0.032 * (0.00 - 0.12) + -0.051 * (0.14 - 0.18) \\ & + -0.051 * (0.29 - 0.21) + -0.030 * (0.00 - 0.19) + -0.063 * (0.29 - 0.15) \\ & + 0.016 * (0.14 - 0.34) + 0.011 * (0.43 - 0.38) + -0.001 * (0.86 - 1.81) \\ = & 0.022 \end{aligned}$$

Quarterly HCAHPS Adjusted Score

- Hospital Quarterly Adjusted Score:
Unadjusted Measure Score + Hospital PMA
(.022) + Mode Adjustment

For full example of HCAHPS score calculation,
please see

<http://www.hcahpsonline.org/Files/Calculation%20of%20HCAHPS%20Scores.pdf>

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Official HCAHPS Results



Official HCAHPS Scores

- Official HCAHPS results calculated by CMS
 - Patient-mix adjusted
 - Survey mode adjusted
 - Rolling 4-quarter average

Where to Find Official HCAHPS Scores

- Preview Reports
 - Available to hospitals during quarterly Preview Period
- Public Reporting
 - www.medicare.gov/hospitalcompare
 - Includes downloadable databases
 - www.data.medicare.gov
 - Downloadable databases and interactive graphical displays

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Questions?



New Survey Items and Research Findings



New Survey Items: Care Transition Measure

- Coleman CTM-3 adapted for HCAHPS
- Used in 2012 Mode Experiment
- Required on HCAHPS Surveys beginning January 1, 2013

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New HCAHPS CTM-3 Items

23. **During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my health care needs would be when I left.**
- 1 Strongly disagree
 - 2 Disagree
 - 3 Agree
 - 4 Strongly agree
24. **When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.**
- 1 Strongly disagree
 - 2 Disagree
 - 3 Agree
 - 4 Strongly agree
25. **When I left the hospital, I clearly understood the purpose for taking each of my medications.**
- 1 Strongly disagree
 - 2 Disagree
 - 3 Agree
 - 4 Strongly agree
 - 5 I was not given any medication when I left the hospital

2012 Mode Experiment Included CTM-3

- 20,670 inpatients discharged January – March 2012 were sampled from 47 national hospitals
- Patients randomly assigned in equal numbers to each of the 4 HCAHPS survey modes

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Mean CTM-3 Scores (adjusted to Mail Only Mode)

	Q23 Preferences	Q24 Understanding	Q25 Purpose	CTM Composite
Top-Box ("Strongly Agree")	38%	46%	55%	46%
Middle-Box ("Agree")	52%	47%	39%	46%
Bottom-Box ("Disagree" or "Strongly Disagree")	10%	7%	6%	8%

CTM-3 Reliability for Top-Box Scoring

- Cronbach's alpha (internal consistency) = 0.80
- Spearman-Brown hospital-level reliability at 300 completes = 0.84

Validity of CTM-3

- Pearson correlations (linear scoring) with 10 existing HCAHPS measures
 - Range 0.30 to 0.51
 - Highest: Recommend Hospital (0.51), Nurse Communication (0.50), Communication About Medicines (0.49), Overall Hospital Rating (0.48)
- PMA and Mode Effect patterns similar to other HCAHPS measures

CTM-3 Summary

- Strong evidence of reliability and validity, like existing HCAHPS measures
- No evidence of a ceiling effect; substantial room for improvement
- Strong association of CTM-3 with Nurse Communication and Communication About Medicines suggests the importance of coordination of care in those areas
 - But CTM-3 not redundant with existing measures
- Public reporting of CTM-3 results expected late 2014
 - Not immediately included in Hospital VBP

HCAHPS Hospital Value-Based Purchasing (VBP) Research

- Results from FY 2013
- Baseline Period: July 2009 through March 2010 discharges
- Performance Period: July 2011 through March 2012 discharges
- 3,173 IPPS hospitals with > 100 completed surveys in Performance Period

HCAHPS Hospital VBP Points

- Total HCAHPS Hospital VBP Points: 0-100
 - “Patient Experience of Care Domain”
- Base Score: 0-80
 - Sum of greater of 0-10 Achievement Points and 0-9 Improvement Points for each of 8 Dimensions
- Consistency Points: 0-20
 - Based on lowest-performing Dimension

Here We Decompose Base Score

0-80 Base Score can be decomposed into

- “Achievement Sum” (AS)
 - Sum of 0-10 Achievement Points (AP) for each of 8 Dimensions
- “Improvement Supplement” (IS)
 - the contribution of Improvement Points (IP) to Base Score beyond Achievement Sum
 - If (AP, IP) are (10, 4), (3, 5), ..., (6, 6) then
 - $AS = 10 + 3 + \dots + 6$
 - $IS = 0 + (5 - 3) + \dots + 0 = 0 + 2 + \dots + 0$

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Now HCAHPS Hospital VBP Points Have 3 Separable Parts that Sum to 100

- “Achievement Sum” (up to 80 points)
 - Sum of 0-10 Achievement Points for each of 8 Dimensions
- “Improvement Supplement” (up to 72 points)
 - the contribution of Improvement Points to Base Score beyond Achievement Sum
- Consistency Points (up to 20 points)
 - Based on lowest-performing Dimension



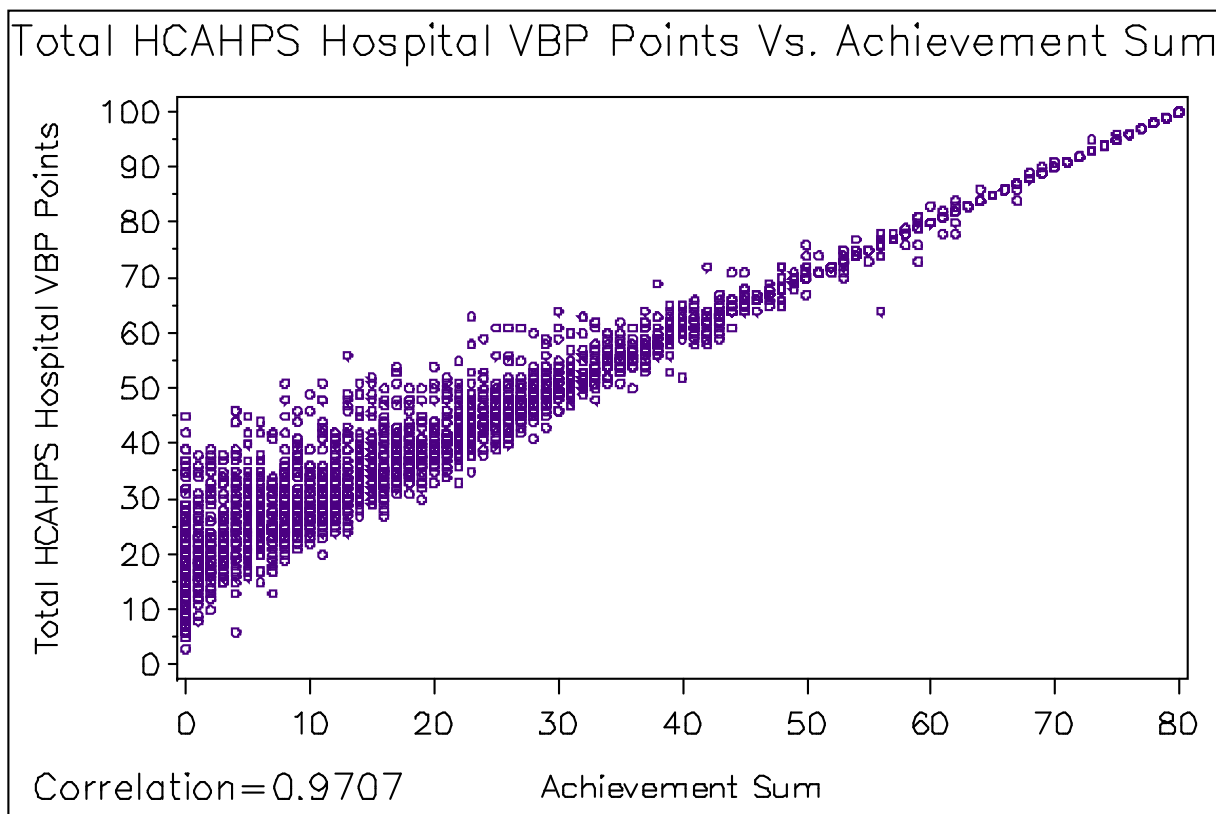
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Means and Standard Deviations

	Mean	Std. Dev.
HCAHPS Total Points (0-100)	43.5	20.0
Achievement Sum (0-80)	<u>23.2</u>	<u>19.3</u>
Improvement Supplement (0-72)	3.3	<u>4.7</u>
Consistency Points (0-20)	<u>17.0</u>	3.1

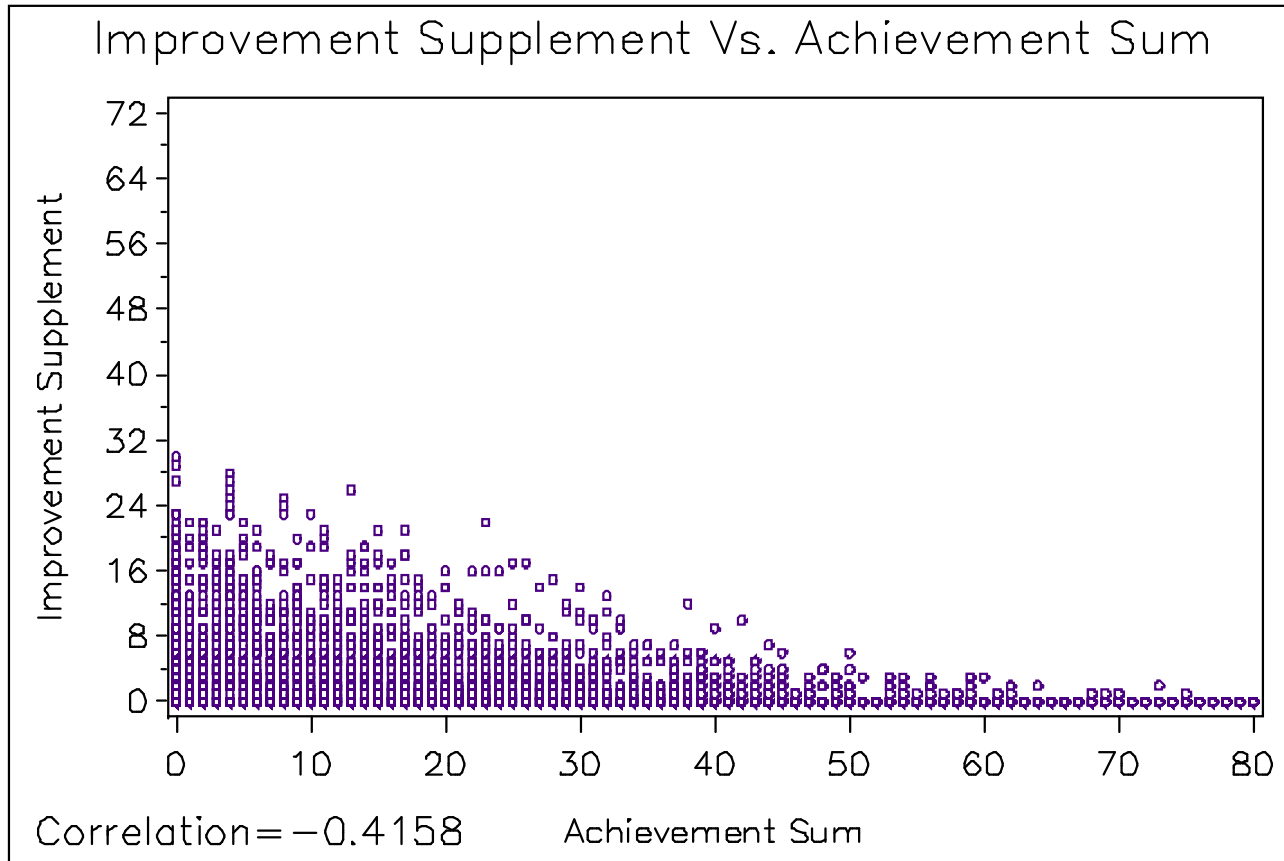
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Achievement Sum (AS): Is Main Driver of Total HCAHPS Hospital VBP Points



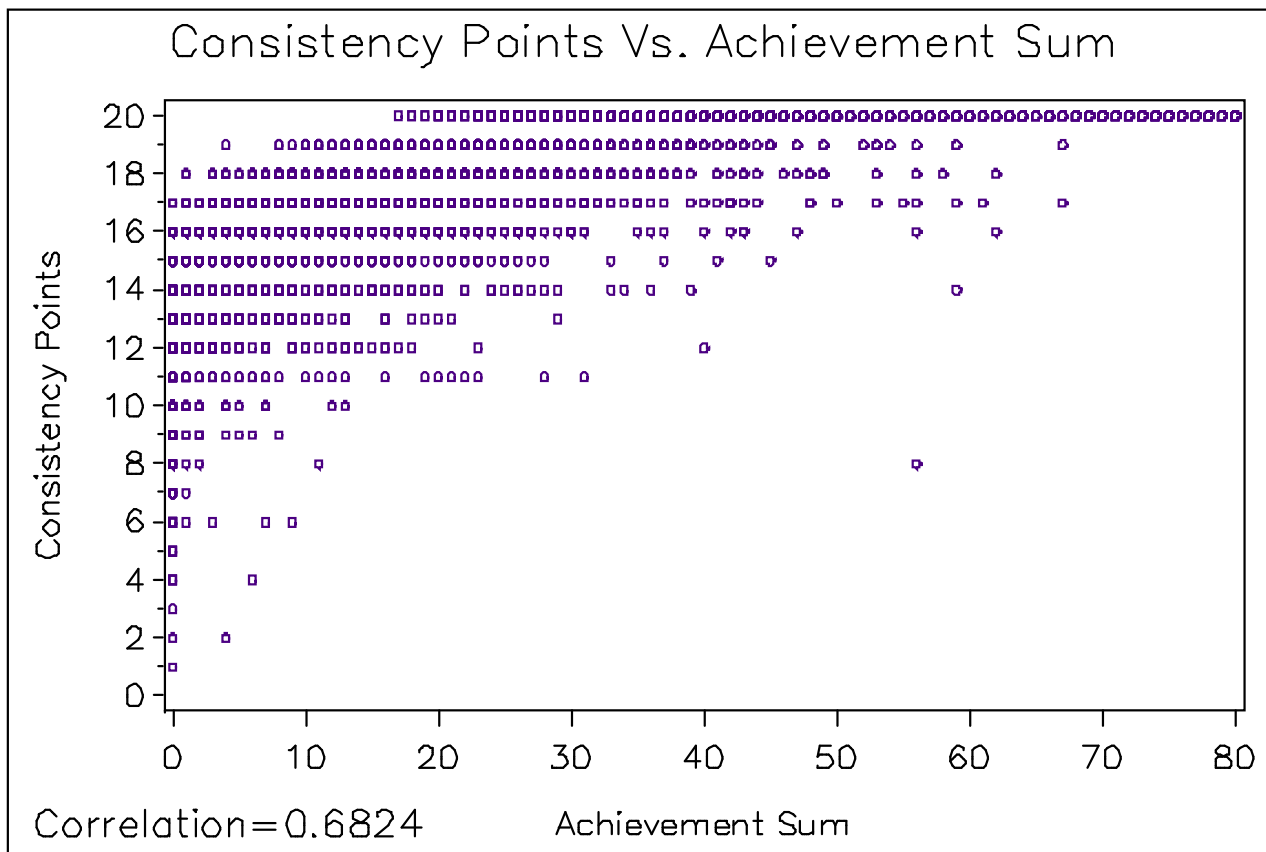
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Improvement Supplement (IS): Higher for Lower-Achievement Hospitals



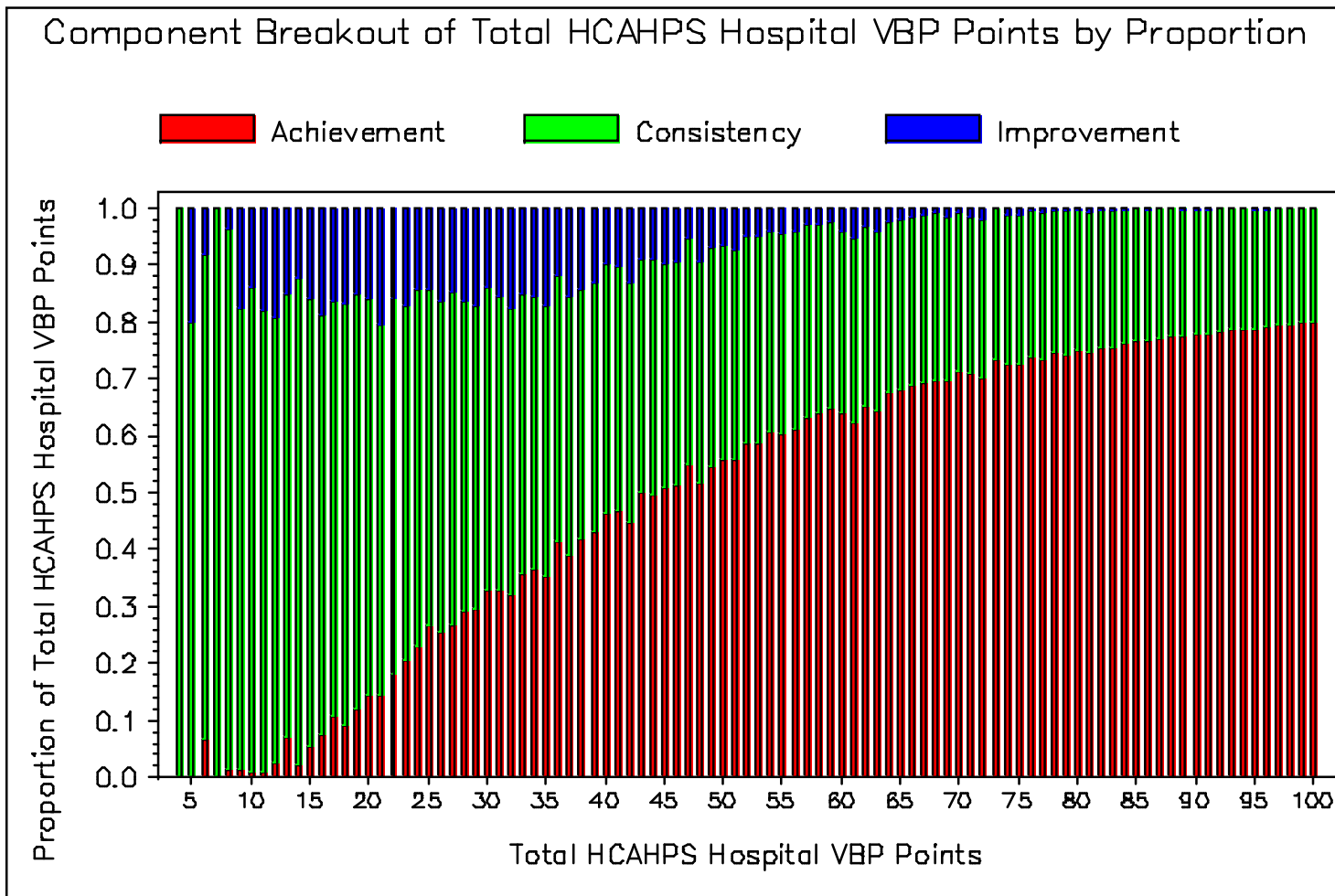
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Consistency Points (CP): Increase with Achievement, up to a Point



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AS drives; IS helps below average; CP smoothes



Achievement Matters Most

- Achievement Sum accounts for 53% of Total HCAHPS Hospital VBP Points
- Achievement Sum accounts for 94% of the variance of Total HCAHPS Hospital VBP Points

Improvement, Consistency Play Small but Important Role

- Improvement and Consistency Points play small but important targeted roles to incentivize improvement among hospitals with below average scores
- Consistency Points substantially augment the scores of lower-performing hospitals, spreading HCAHPS Hospital VBP points more evenly

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Questions?



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Contact Us

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