



Indiana Patient Safety Center

of the Indiana Hospital Association

Indiana HRET HIIN Improvement Calculator Demo Webinar
January 4, 2018
3 – 4 p.m. ET

HIIN Improvement Calculator

- A tool to assist with data analysis
 - Individual measure
 - Harm Across the Board: method of looking at the number of Harms/Discharge
 - Utilizes data from HRET's Comprehensive Data System (CDS)

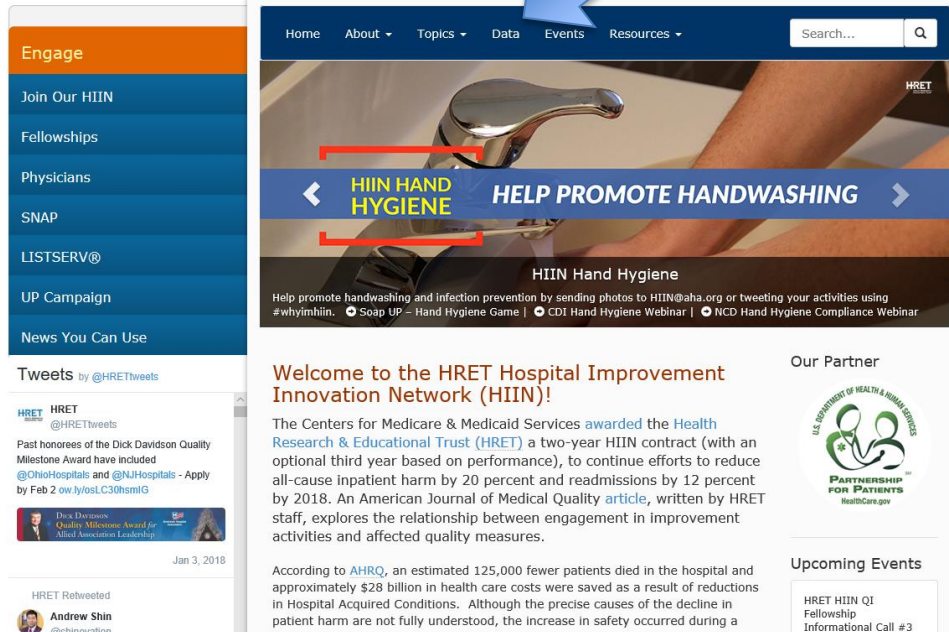
HIIN Improvement Calculator

- Instructions for the improvement calculator are embedded in the tool and on HRET's website
- It is recommended to use Excel 2010 and above for best results
- Currently, we are using version 4.2

HIIN Improvement Calculator



Hospital Improvement Innovation Network



Engage

- Join Our HIIN
- Fellowships
- Physicians
- SNAP
- LISTSERV@
- UP Campaign
- News You Can Use

Tweets by @HRETtweets

HRET @HRETtweets
Past honorees of the Dick Davidson Quality Milestone Award have included @OhioHospitals and @NJHospitals - Apply by Feb 2 0w 1y/osl.C30hsmlG

Jan 3, 2018

HRET Retweeted
Andrew Shin @shinovation

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HIIN HAND HYGIENE HELP PROMOTE HANDWASHING

HIIN Hand Hygiene
Help promote handwashing and infection prevention by sending photos to HIIN@aha.org or tweeting your activities using #whymhiin. Soap UP - Hand Hygiene Game | CDI Hand Hygiene Webinar | NCD Hand Hygiene Compliance Webinar

Welcome to the HRET Hospital Improvement Innovation Network (HIIN)!

The Centers for Medicare & Medicaid Services awarded the Health Research & Educational Trust (HRET) a two-year HIIN contract (with an optional third year based on performance), to continue efforts to reduce all-cause inpatient harm by 20 percent and readmissions by 12 percent by 2018. An American Journal of Medical Quality article, written by HRET staff, explores the relationship between engagement in improvement activities and affected quality measures.

According to AHRQ, an estimated 125,000 fewer patients died in the hospital and approximately \$28 billion in health care costs were saved as a result of reductions in Hospital Acquired Conditions. Although the precise causes of the decline in patient harm are not fully understood, the increase in safety occurred during a

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Upcoming Events

HRET HIIN QI Fellowship Informational Call #3

Go to HRET's home page at www.hret-hiin.org and select Data

HIIN Improvement Calculator

at reducing patient harm.

Submitting Data

If your hospital will be joining the HRET HIIN NHSN group to confer rights to the data from NHSN, the [NHSN Group Instructions](#) will guide you through this process.

The [Comprehensive Data System](#) is the secure, web-based data collection and reporting system that hospitals use for HIIN. For instructions on how to set up user accounts in CDS, please see the guide for hospitals that are [NEW](#) to CDS, and another guide for [RETURNING](#) hospitals. These Quick Start Guides cover logging into CDS and walk you through how to set up user accounts for your hospital.

For instructions on how to perform data entry in CDS, please see the [CDS Data Entry Quick Start Guide](#).

Using Data to Improve

To learn how to view and track your data to drive improvement by using the Comprehensive Data System's (CDS) reporting features, please see the [CDS Report Guide](#).

Tracking Safety Across the Board

The [HIIN Improvement Calculator](#) enables hospitals to use data collected via the Comprehensive Data System (CDS) to calculate, and track, a "total harm per discharge" rate in pursuit of safety across the board. This Excel-based tool provides a simple end-user experience and not only calculates harms per discharge, but also calculates and displays harms prevented, lives saved, and costs saved. Users should take the time to review the "Instructions" for the improvement calculator.

Data & Quality Improvement Resources

- [Check Out the HIIN Data Tutorials!](#) +
- [HIIN Improvement Calculator Data Tutorials](#) +
- [Data Collection Fact Sheets](#) +



[Download the EOM](#)



[NHSN Group Instructions](#)



[Watch a Past Data Webinar](#)

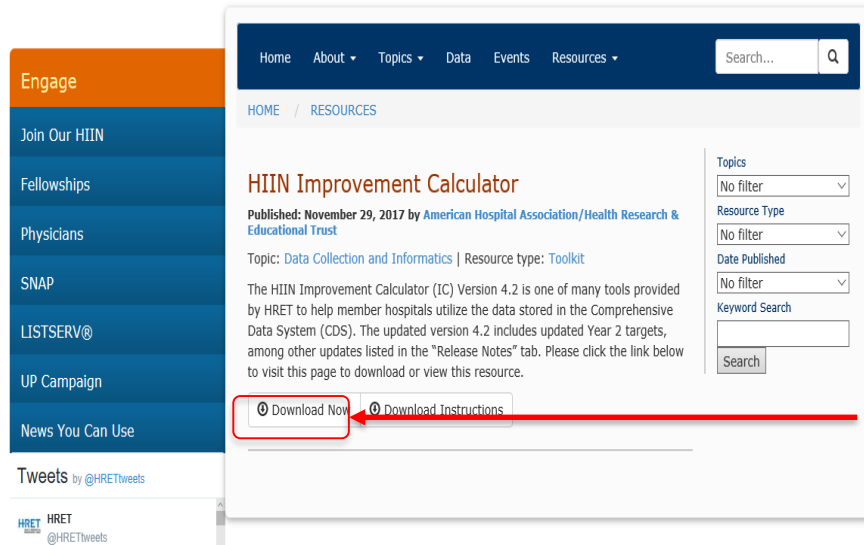
The HRET HIIN Data Team looks forward to working with you!

Instructions and HIIN Improvement Calculator data tutorials are available

Step 1



Hospital Improvement Innovation Network



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HIIN Improvement Calculator

Published: November 29, 2017 by American Hospital Association/Health Research & Educational Trust

Topic: [Data Collection and Informatics](#) | Resource type: [Toolkit](#)

The HIIN Improvement Calculator (IC) Version 4.2 is one of many tools provided by HRET to help member hospitals utilize the data stored in the Comprehensive Data System (CDS). The updated version 4.2 includes updated Year 2 targets, among other updates listed in the "Release Notes" tab. Please click the link below to visit this page to download or view this resource.

Topics: No filter

Resource Type: No filter

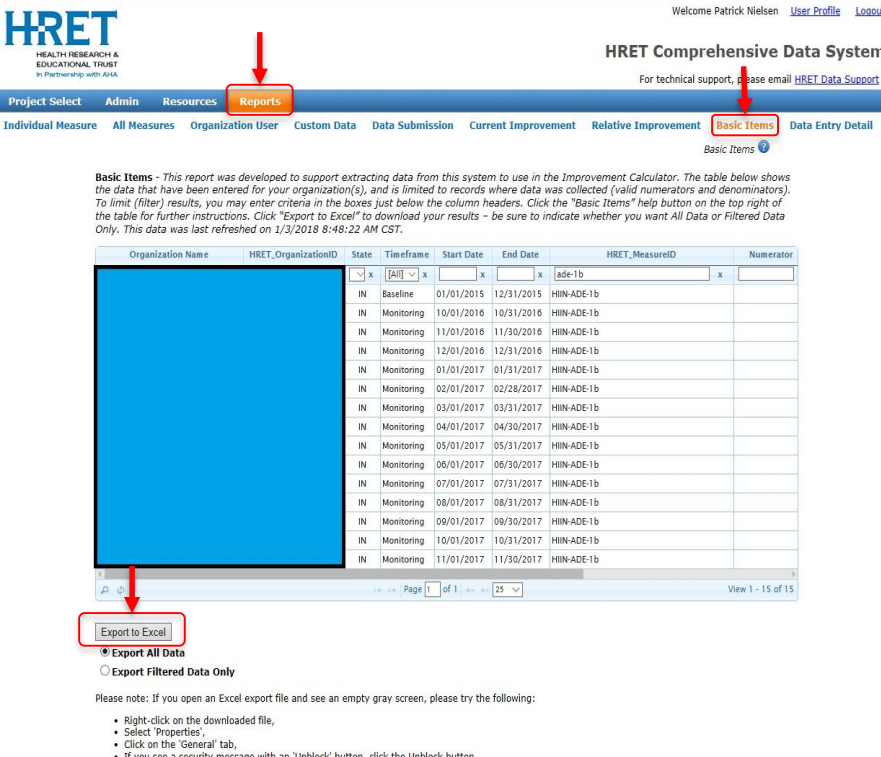
Date Published: No filter

Keyword Search: Search

[Download Now](#) [Download Instructions](#)

- Download Improvement Calculator from: (<http://www.hret-hiin.org/resources/display/hiin-improvement-calculator>)
- Click on “Download Now” to download Improvement Calculator tool

Step 2



Welcome Patrick Nielsen [User Profile](#) [Logout](#)

HRET Comprehensive Data System
For technical support, please email [HRET Data Support](#).

Project Select Admin Resources **Reports** Basic Items Data Entry Detail

Individual Measure All Measures Organization User Custom Data Data Submission Current Improvement Relative Improvement Basic Items Data Entry Detail

Basic Items - This report was developed to support extracting data from this system to use in the Improvement Calculator. The table below shows the data that have been entered for your organization(s), and is limited to records where data was collected (valid numerators and denominators). To limit (filter) results, you may enter criteria in the boxes just below the column headers. Click the "Basic Items" help button on the top right of the table for further instructions. Click "Export to Excel" to download your results - be sure to indicate whether you want All Data or Filtered Data Only. This data was last refreshed on 1/3/2018 8:48:22 AM CST.

Organization Name	HRET_OrganizationID	State	Timeframe	Start Date	End Date	HRET_MeasureID	Numerator
		[All] x		x	x	ade-1b	x
IN	Baseline	01/01/2015	12/31/2015			HIIN-ADE-1b	
IN	Monitoring	10/01/2016	10/31/2016			HIIN-ADE-1b	
IN	Monitoring	11/01/2016	11/30/2016			HIIN-ADE-1b	
IN	Monitoring	12/01/2016	12/31/2016			HIIN-ADE-1b	
IN	Monitoring	01/01/2017	01/31/2017			HIIN-ADE-1b	
IN	Monitoring	02/01/2017	02/28/2017			HIIN-ADE-1b	
IN	Monitoring	03/01/2017	03/31/2017			HIIN-ADE-1b	
IN	Monitoring	04/01/2017	04/30/2017			HIIN-ADE-1b	
IN	Monitoring	05/01/2017	05/31/2017			HIIN-ADE-1b	
IN	Monitoring	06/01/2017	06/30/2017			HIIN-ADE-1b	
IN	Monitoring	07/01/2017	07/31/2017			HIIN-ADE-1b	
IN	Monitoring	08/01/2017	08/31/2017			HIIN-ADE-1b	
IN	Monitoring	09/01/2017	09/30/2017			HIIN-ADE-1b	
IN	Monitoring	10/01/2017	10/31/2017			HIIN-ADE-1b	
IN	Monitoring	11/01/2017	11/30/2017			HIIN-ADE-1b	

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Export to Excel

Export All Data
 Export Filtered Data Only

Please note: If you open an Excel export file and see an empty gray screen, please try the following:

- Right-click on the downloaded file,
- Select 'Properties',
- Click on the 'General' tab,
- If you see a security message with an 'Unblock' button, click the Unblock button.

- Go to (<https://www.hretcds.org/>) and login
- Click on “Reports” then “Basic Items”
 - See image for assistance identifying
- Your hospital’s information should appear at this point
- Make sure “Export All Data” is highlighted on the bottom left, then click “Export to Excel” to gather all of your hospital’s data

Step 3

A	B	C	D	E	F	G	H	I	J	K
Organization Name	HRET OrganizationID	State	Timeframe	Start Date	End Date	HRET MeasureID	Numerator	Denominator	Reporting Entity	HRET_ReportingEntityID
Hospital A	HIIN a	IN	Monitoring	4/1/2015	12/31/2015	HIIN-ADE-1a	9	801	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	10/1/2016	10/31/2016	HIIN-ADE-1a	2	69	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	11/1/2016	11/30/2016	HIIN-ADE-1a	0	88	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	12/1/2016	12/31/2016	HIIN-ADE-1a	0	40	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	1/1/2017	1/31/2017	HIIN-ADE-1a	3	51	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	2/1/2017	2/28/2017	HIIN-ADE-1a	0	88	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	3/1/2017	3/31/2017	HIIN-ADE-1a	5	73	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	4/1/2017	4/30/2017	HIIN-ADE-1a	0	67	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	5/1/2017	5/31/2017	HIIN-ADE-1a	0	77	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	6/1/2017	6/30/2017	HIIN-ADE-1a	0	32	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	7/1/2017	7/31/2017	HIIN-ADE-1a	0	30	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	8/1/2017	8/31/2017	HIIN-ADE-1a	0	36	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	9/1/2017	9/30/2017	HIIN-ADE-1a	0	38	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	10/1/2017	10/31/2017	HIIN-ADE-1a	0	21	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	11/1/2017	11/30/2017	HIIN-ADE-1a	1	59	Hospital A	HIIN a
Hospital A	HIIN a	IN	Baseline	1/1/2015	12/31/2015	HIIN-ADE-1b	33	2104	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	10/1/2016	10/31/2016	HIIN-ADE-1b	1	258	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	11/1/2016	11/30/2016	HIIN-ADE-1b	0	242	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	12/1/2016	12/31/2016	HIIN-ADE-1b	2	175	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	1/1/2017	1/31/2017	HIIN-ADE-1b	1	107	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	2/1/2017	2/28/2017	HIIN-ADE-1b	2	95	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	3/1/2017	3/31/2017	HIIN-ADE-1b	0	104	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	4/1/2017	4/30/2017	HIIN-ADE-1b	2	112	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	5/1/2017	5/31/2017	HIIN-ADE-1b	2	108	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	6/1/2017	6/30/2017	HIIN-ADE-1b	0	99	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	7/1/2017	7/31/2017	HIIN-ADE-1b	3	85	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	8/1/2017	8/31/2017	HIIN-ADE-1b	0	100	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	9/1/2017	9/30/2017	HIIN-ADE-1b	2	95	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	10/1/2017	10/31/2017	HIIN-ADE-1b	0	110	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	11/1/2017	11/30/2017	HIIN-ADE-1b	3	117	Hospital A	HIIN a
Hospital A	HIIN a	IN	Baseline	7/1/2015	6/30/2016	HIIN-ADE-1c	9	5931	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	10/1/2016	10/31/2016	HIIN-ADE-1c	0	413	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	11/1/2016	11/30/2016	HIIN-ADE-1c	1	414	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	12/1/2016	12/31/2016	HIIN-ADE-1c	0	491	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	1/1/2017	1/31/2017	HIIN-ADE-1c	0	406	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	2/1/2017	2/28/2017	HIIN-ADE-1c	0	374	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	3/1/2017	3/31/2017	HIIN-ADE-1c	0	517	Hospital A	HIIN a
Hospital A	HIIN a	IN	Monitoring	4/1/2017	4/30/2017	HIIN-ADE-1c	0	422	Hospital A	HIIN a

- Click on Cell A2 (Row: 2 Column: A)
- Select all data from this cell (Can do this by holding down Ctrl + Shift + End)
- After all of the information is highlighted, copy this data (can do by Ctrl + C or right click copy) (make sure the headers aren't included in the copied information)

Step 4

Instruction Manual: HIIN Improvement Calculator

Version: 4.2
Last Updated: 11/29/2017

We highly recommend using Excel 2010 or later. Not all features of the IC will work with prior versions of Excel.

The HIIN Improvement Calculator (IC) is one of many tools provided by HRET to help participating hospitals utilize the data submitted to the Comprehensive Data System (CDS), in support of the HIIN.

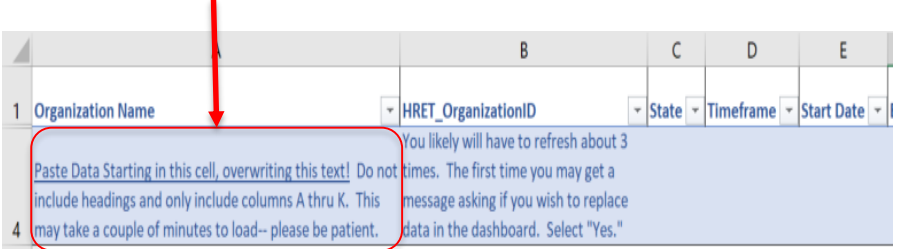
The IC translates raw HIIN data into meaningful information. The main feature of the IC is that it calculates 'improvement', comparing results from the monitoring period to baseline values for several HIIN evaluation measures. It also provides a graphical display of the results for each measure.

We have developed this tool in Excel in order to empower users to customize the tool as they desire. For example, if you wish to do something simple like changing color schemes, you may do this and save your own version of the IC with this change incorporated. Similarly, if you wish to remove some measures from the summary table that you do not report, you can do this in a blank version of the IC and save for your future use. Just make sure you periodically check back to make sure you have a recent version of the IC and are aware of fixes with new versions.

To get started, please review the Users Guide on our website!

**Improvement Calculator
Instructions**

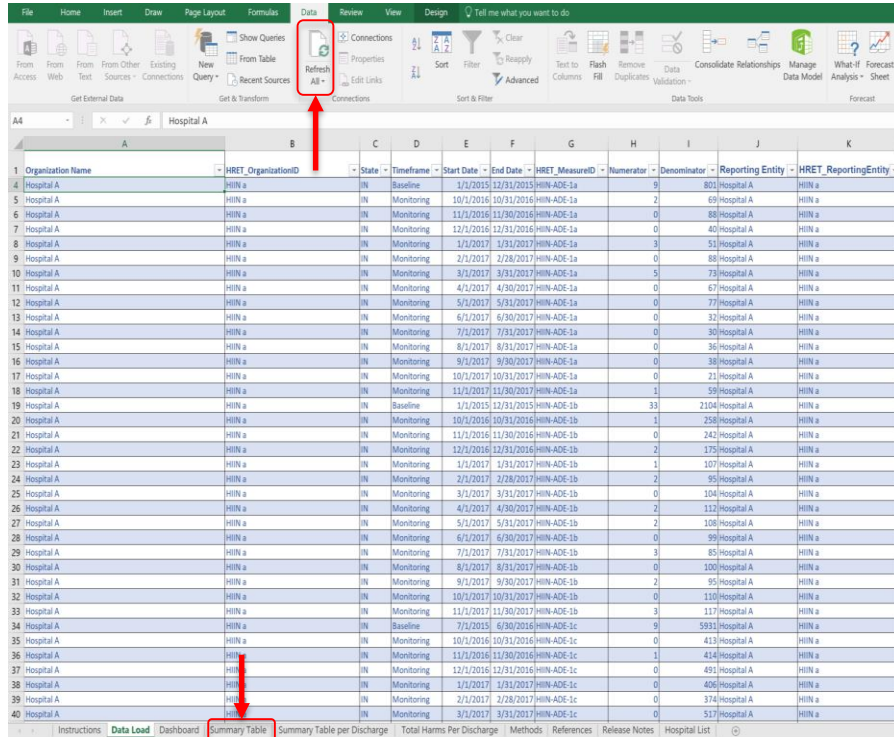
Instructions | **Data Load** | Dashboard | Summary Table | Summary Table per Discharge | Total Harms Per Discharge | Methods | References | Release Notes | Hospital List



	B	C	D	E	
1	Organization Name	HRET_OrganizationID	State	Timeframe	Start Date
4	Paste Data Starting in this cell, overwriting this text! Do not include headings and only include columns A thru K. This may take a couple of minutes to load-- please be patient.				You likely will have to refresh about 3 times. The first time you may get a message asking if you wish to replace data in the dashboard. Select "Yes."

- After copying data from your hospital, open the Improvement Calculator and click on the Data Load tab on the bottom
- Click on the cell where it says “Paste Data Starting in this cell” and paste the copied data


Step 5



The screenshot shows the Microsoft Excel interface with the 'Data' tab selected. A red arrow points to the 'Refresh All' button in the 'Connections' group of the ribbon. Below the ribbon, a table is visible with the following columns: Organization Name, HRET OrganizationID, State, Timeframe, Start Date, End Date, HRET_MeasureID, Numerator, Denominator, Reporting Entity, and HRET_ReportingEntity. The table contains 40 rows of data for Hospital A, showing various monitoring and baseline periods for different measures.


- Your hospital’s data should appear in the table following step 4
- From here, click the “Refresh All” button on the top of the screen
- This process may take up to 5 minutes for completion depending on the amount of data being submitted
- Once the data points appear, click on the “Summary Table” tab on the bottom of the screen

Final- Summary Table



**Summary Table:
Measure Rates**

Hospital: (All): 2016 10 (Oct)-
Depends on hospital and Measure



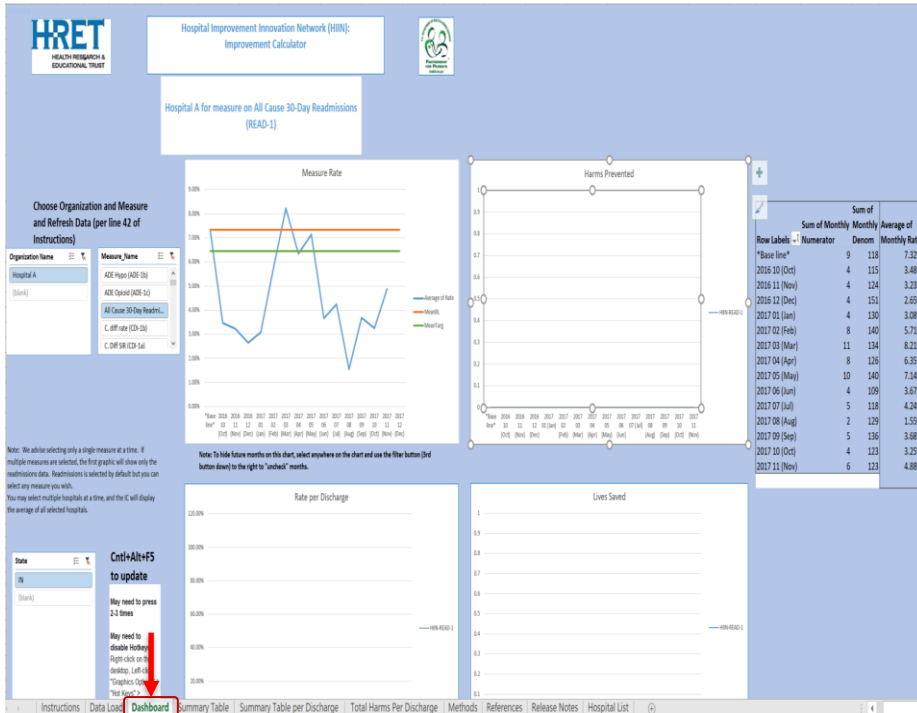
Choose Hospital(s) and Refresh Data (per line 42 of Instructions)

Organization Name	In Total	Suppressed	Item: Measure for (All) Hospital	Baseline Numerator	Baseline Denominator	Baseline Rate per 1000	Target Rate	Current Month	Current Numerator	Current Denominator	Current Rate per 1000	Current % Improvement	Year To Date Numerator	Year To Date Denominator	Year To Date Rate per 1000	Year To Date % Improvement	Improvement Status (last)
Hospital A	Y		ADE Anticoag (ADE-1a)	9	801	11.24	8.99	2017 11 (Nov)	1	59	16.95	-51%	11	769	14.30	-27%	Not Achieved
	Y		ADE Hypo (ADE-1b)	33	2,104	15.68	12.55	2017 11 (Nov)	3	117	25.64	-63%	18	1,807	9.96	36%	Achieved
	Y		ADE Opioid (ADE-1c)	9	5,931	1.52	1.21	2017 11 (Nov)	0	497	0.00	100%	2	6,092	0.33	78%	Achieved
	Y		CAUTI Rate - All Units excl NICU (CAUTI-2a)	0	495	0.00	0.00	2017 10 (Oct)	0	99	0.00	+	0	1,024	0.00	+	Achieved - steps 0
			CAUTI Rate - ICUs excl NICU (CAUTI-2b)	0	495	0.00	0.00	2017 10 (Oct)	0	35	0.00	+	0	334	0.00	+	Achieved - steps 0
			Catheter Utilization - All Units excl NICU (CAUTI-3a)	495	1,090	45.13	363.30	2017 10 (Oct)	99	567	174.60	62%	1,024	7,734	122.40	71%	Achieved
			Catheter Utilization - ICUs excl NICU (CAUTI-3a)	495	1,090	45.13	363.30	2017 10 (Oct)	35	79	443.04	2%	334	1,036	322.99	29%	Achieved
	Y		CLABSI Rate - All Units (CLABSI-2a)	1	97	10.31	8.25	2017 10 (Oct)	0	18	0.00	100%	0	480	0.00	100%	Achieved
			CLABSI Rate - ICUs (CLABSI-2b)	1	97	10.31	8.25	2017 10 (Oct)	0	3	0.00	100%	0	41	0.00	100%	Achieved
			Central Line Utilization - All Units (CLABSI-3a)	97	1,090	88.99	71.19	2017 10 (Oct)	18	567	31.75	64%	480	7,734	62.06	30%	Achieved
			Central Line Utilization - ICUs (CLABSI-3b)	97	1,090	88.99	71.19	2017 10 (Oct)	3	79	37.97	57%	41	1,036	39.58	56%	Achieved
	Y		Falls with Injury (FALLS-1)	3	6,847	0.43	0.36	2017 11 (Nov)	0	549	0.00	100%	12	6,475	1.85	311%	Not Achieved
	Y		MRSA Rate (MRSA-2)	0	11,281	0.00	0.00	2017 10 (Oct)	0	481	0.00	+	0	6,827	0.00	+	Achieved - steps 0
	Y		PfU Prevalence, Stage 2+ (PfU-2)	14	1,936	7.27	5.82	2017 11 (Nov)	0	17	0.00	100%	28	440	63.64	-77%	Not Achieved
	Y		PfU Rate, Stage 3+ (PfU-1)	*	*	*	*	2017 11 (Nov)	*	*	*	*	*	*	*	*	*
	Y		SSI Rate, Colon (SSI-2a)	0	7	0.00	0.00	2017 10 (Oct)	0	1	0.00	+	0	4	0.00	+	Achieved - steps 0
	Y		SSI Rate, Abnd Hygt (SSI-2b)	*	*	*	*	2017 10 (Oct)	*	*	*	*	*	*	*	*	*
	Y		SSI Rate, Hip (SSI-2d)	*	*	*	*	2017 10 (Oct)	*	*	*	*	*	*	*	*	*
	Y		SSI Rate, Knee (SSI-2c)	0	41	0.00	0.00	2017 10 (Oct)	0	5	0.00	+	0	29	0.00	+	Achieved - steps 0
	Y		C. diff rate (CDI-1a)	9	7,455	1.21	0.97	2017 10 (Oct)	0	446	0.00	100%	4	6,355	0.63	48%	Achieved
	Y		Post-Op Sepsis Rate (Sepsis-1a)	0	19	0.00	0.00	2017 09 (Sept)	0	7	0.00	+	0	48	0.00	+	Achieved - steps 0
	Y		Hospital-Onset Sepsis Mortality (Sepsis-1c)	*	*	*	*	2017 11 (Nov)	*	*	*	*	*	*	*	*	*
			Overall Sepsis Mortality (Sepsis-1d)	2	37	54.05	43.14	2017 11 (Nov)	0	5	0.00	100%	3	98	30.61	43%	Achieved
			VAC (VAC-1)	0	27	0.00	0.00	2017 10 (Oct)	0	0	+	+	0	4	0.00	+	Achieved - steps 0
			VAC (VAC-2)	0	27	0.00	0.00	2017 10 (Oct)	0	0	+	+	0	4	0.00	+	Achieved - steps 0
	Y		VTE	2	159	12.58	10.06	2017 11 (Nov)	0	20	0.00	100%	0	218	0.00	100%	Achieved
	Y		Welder Safety - Patient Handling (WS-1b)	*	*	*	*	2017 11 (Nov)	*	*	*	*	*	*	*	*	*
	Y		Welder Safety - Workplace Violence (WS-1c)	7	4,404	1.59	1.27	2017 11 (Nov)	0	406	0.00	100%	4	5,717	0.70	56%	Achieved
	Y		Readmissions	104	1,420	73.24	64.65	2017 11 (Nov)	6	123	48.78	33%	79	1,798	43.94	40%	Achieved
				184	38,410	4.79	3.83	2017 11 (Nov)	13	2,491	4.10	14%	154	32,370	4.76	1%	Not Achieved

* Data is not available or is suppressed due to incomplete baseline or monitoring data, or because the baseline rate is zero and the monitoring rate is greater than zero, so improvement cannot be calculated.


- This tab shows the goal progressions of the quality measures within the HIIN Project
- If data doesn't appear, refresh the data at the same location as the previous slide

Additional Tabs - Dashboard




- This tab allows the user to visualize the trends of measures and how hospitals are doing
- It breaks down Measure rate, Harms Prevented, Rate per Discharge, and Lives Saved
- Filters allow the user to select specific measures, or incorporate multiple measures to visualize

Summary Table per Discharge



Summary Table:
Measure Rates per 1,000 Discharges



Discharge rates only count numerators when discharges (readmissions) are reported, and numerators are zero if there are no reported discharges. If there are not any discharges reported in either the baseline period or all of the monitoring months, no data will appear in this table.

Choose Hospital(s) and Refresh Data (per line 42 of Instructions)

Hospital: Hospital A: 2016 10 (Oct)-2017
11 (Nov)

Harm Measure	Baseline Numerator	Baseline Discharges	Baseline Rate per 1000	Target Rate	Year To Date Numerator	Year To Date Discharges	Year To Date Rate per 1000	Harms Prevented	Cost Per Harm	Costs Avoided	Mortality Rate	Lives Saved
ADE Anticoag (ADE-1a)	9	1,420	6.34	5.07	11	1,798	6.12	0.40	\$ 5,000	\$1,979	0.11	0.04
ADE Hypo (ADE-1b)	33	1,420	23.24	18.59	18	1,798	10.01	24	\$ 5,000	\$118,923	0.11	3
ADE Opioid (ADE-1c)	9	1,420	6.34	5.07	2	1,798	1.11	9	\$ 5,000	\$46,979	0.11	1
CAUTI Rate - All Units and NICU (CAUTI-2a)	*	*	*	*	*	*	*	*	\$ 1,000	*	0.1	*
CLABSI Rate - All Units (CLABSI-2a)	1	1,420	0.70	0.56	0	1,798	0.00	1	\$ 17,000	\$21,525	0.18	0.23
Falls with Injury (FALLS-1)	3	1,420	2.11	1.69	12	1,798	6.67	(8)	\$ 12,965	(\$106,331)	*	0
MRSA Rate (MRSA-2)	*	*	*	*	*	*	*	*	\$ 7,752	*	0.27	*
PHU Prevalence, Stage 2+ (PHU-2)	14	1,420	9.86	7.89	28	1,798	15.57	(10)	\$ 17,000	(\$174,645)	*	0
SSI Rate, Colon (SSI-2a)	*	*	*	*	*	*	*	*	\$ 21,000	*	0.03	*
SSI Rate, Abd Hygt (SSI-2b)	*	*	*	*	*	*	*	*	\$ 21,000	*	0.03	*
SSI Rate, Hip (SSI-2c)	*	*	*	*	*	*	*	*	\$ 21,000	*	0.03	*
SSI Rate, Knee (SSI-2c)	*	*	*	*	*	*	*	*	\$ 21,000	*	0.03	*
C. diff rate (CDI-1b)	9	1,420	6.34	5.07	4	1,798	2.22	7	\$ 10,000	\$73,958	0.064	0.47
Post-Op Sepsis Rate (Sepsis-1a)	*	*	*	*	*	*	*	*	\$ 17,000	*	0.26	*
VAC (VAC-1)	*	*	*	*	*	*	*	*	\$ 21,000	*	0.39	*
Post-Op VTE (VTE-1)	2	1,420	1.41	1.13	0	1,798	0.00	3	\$ 8,000	\$20,259	0.15	0.38
All Cause 30-Day Readmissions (READ-1)	104	1,420	73.24	64.45	79	1,798	43.94	53	\$ 15,477	\$815,398	*	*
Total Harm (per Discharge)**	184	1,420	129.58	103.66	154	1,798	85.65	79		\$818,044		5

* Value is not available or is suppressed due to incomplete baseline or monitoring data, or because readmissions have not been reported. If baseline rates are zero, improvement cannot be calculated.
 **Does not include HAPU 3+ or VAC because harms in these categories are already included in other measures.
 Note: Numbers in parentheses with red colors are negative numbers (eg (8)=-8). If you see (0), this indicates a small negative decimal value.

- This table shows information such as “lives saved” and “costs avoided”
- Helps show the immediate impact made by hospitals by their work with reducing harms
- These numbers are defined on the next “References” tab

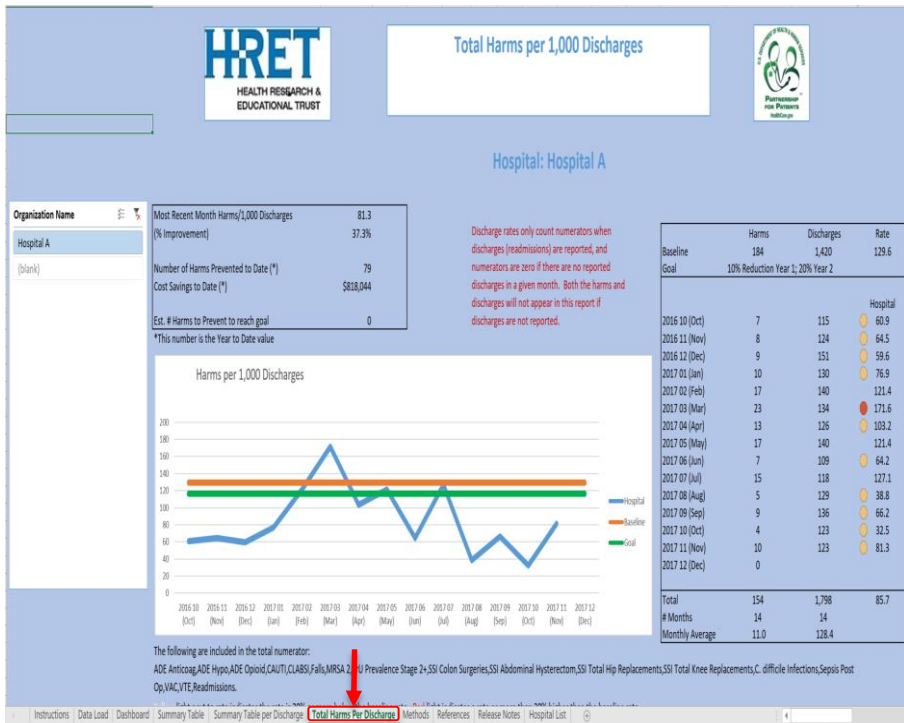
References

HIIN Improvement Calculator: References		
Cost Per Harm References		
Harm	Cost per Case (Study Year USD)	AHRQ Reference
Central Line-Associated Bloodstream Infection (CLABSI)	\$17,000 (2009)	CDC Vital Signs- Central Line Associated Blood Stream Infections- US 2001, 2008, 2009. March 3, 2011 MMWR (e-release March 1, 2011). http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6008a4.htm?cid=mm6008a4_w
Venous Thromboembolism (VTE) (post-surgery)	\$8,000 (2004)	Spyropoulos AC, Lin J. Direct medical costs of venous thromboembolism and subsequent hospital readmission rates: an administrative claims analysis from 30 managed care organizations. <i>J Manag Care Pharm.</i> 2007 Jul-Aug;13(6):475-86. http://www.ncbi.nlm.nih.gov/pubmed/17672809 Maynard G, Stein J. Preventing hospital-acquired venous thromboembolism: A guide for effective quality improvement. Prepared by the Society of Hospital Medicine. AHRQ Publication No. 08-0075. Rockville, MD: Agency for Healthcare Research and Quality. August 2008. http://www.ahrq.gov/qual/vtguide/
Pressure Ulcer	\$17,000 (2009)	Federal Register: April 30, 2008 (Volume 73, Number 84). Centers for Medicare and Medicaid Services. Medicare Program: Proposed Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2009 Rates, 23528-23938 [08-1135]. http://www.ncbi.nlm.nih.gov/pubmed/19827228
Surgical Site Infection (SSI)	\$21,000 (2007)	CDC (Scott, RD), The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospital and the Benefits of Prevention. March 2009. Available at http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf
Ventilator-Associated Pneumonia	\$21,000 (2007)	CDC (Scott, RD), The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospital and the Benefits of Prevention. March 2009. Available at http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf
Catheter-Associated Urinary Tract Infection (CAUTI)	\$1,000 (2007)	CDC (Scott, RD), The Direct Medical Costs of Healthcare-Associated Infections in U.S. Hospital and the Benefits of Prevention. March 2009. Available at http://www.cdc.gov/ncidod/dhqp/pdf/Scott_CostPaper.pdf
Bates DW, Cullen DJ, Laird N, et al. Incidence of adverse drug events		

References

- Describes in more detail the dollar amounts for each harm and mortality rates for each measure
- Shows where each number was derived and refers to articles that contributed to each measures' harm dollar amount and mortality rate

Total Harms per Discharge



- Summarizes the number of Harms prevented per 1000 discharges
- Table on the top shows the costs avoided and % improvement
- Table on the right shows harms and discharges broken down by month
- Graph shows hospital line in blue, baseline of HIIN project for the hospital in orange, and the goal improvement rate in green line

Methods

Methods

Dashboard:
The Dashboard includes graphics showing the measure rate, measure rate per discharge, harms prevented, and lives saved for selected measures.

Measure Rate: Monthly Numerator / Monthly Denominator
The Measure Rate uses the clinically relevant denominator for each measure. See the HRET Encyclopedia of Measures for detailed descriptions of each measure.
The monthly baseline values are calculated by dividing the reported numerator and denominator by the number of reported baseline months.
Values for the Measure Rate shown in the graphic are also shown in the table along with numerator and denominator values for each month.

Measure Rate per Discharge: Monthly Numerator / Monthly Discharges
Discharges are reported as the denominator for the 30 day readmission measure.
If 30 day readmission values are not reported for a given month, rates per discharge cannot be calculated for any other measures.

Harms Prevented: Monthly baseline rate per discharge for baseline period multiplied with current month discharges, minus current harms
The number of harms prevented is the difference between the actual harms that occurred each month and those that hypothetically would have occurred if there had been no change since baseline.

Lives Saved: Harms Prevented per Discharge * Mortality Rate
Mortality rates were determined based on review of clinical literature. For details see the References tab.

Summary Table:
The Summary Table tab shows the baseline values and progress for all measures.
Progress is shown for the current (most recently reported) month as well as the year-to-date sum of all reported values.
The Summary Table rates are based on the clinically meaningful denominators for each measure.

Data suppression and inclusion:
If data are reported for baseline or monitoring periods but are not sufficient for the calculation of progress on a measure, all values (including reported values) are suppressed so that overall totals are unaffected. Values that are suppressed appear as "N/A". This happens when insufficient data are available for baseline or monitoring periods and improvement cannot be calculated.
However, it is possible to turn off the data suppression in order to view the data as reported.
It is also possible to customize the calculation of total harms to eliminate measures that do not apply or add measures of interest to you. See details below.

The default settings for this table are shown in columns C and D. The "Y" in column C indicates that this measure row is suppressed. The "Y" in column D indicates that the measure is included in the Total Harms calculation.
You can override the suppression by deleting the "Y" in Column C. This will allow you to see the reported values for the measure.
You can change the combination of measures included in the Total Harms row by deleting the "Y" in Column D. This will allow you to customize the Total Harms calculation to include or exclude specific measures (e.g. measures that are not applicable to a hospital).

Instructions | Data Load | Dashboard | Summary Table | Summary Table per Discharge | Total Harms Per Discharge | **Methods** | References | Release Notes | Hospital List

- Describes methodology of each column in the tabs show in the Improvement Calculator
- Explains definition of graphs in tabs
- Many different nuances in tables but contain useful information for presentations or visualizations

Questions?

- Specific or general, let us know your HIIN Calculator questions so we can help
- View our updated 2018 Data Submission Calendar
[https://www.ihaconnect.org/Resources/Public/PatientSafety/HiIN/2018 Data Submission Calendar.pdf](https://www.ihaconnect.org/Resources/Public/PatientSafety/HiIN/2018DataSubmissionCalendar.pdf)

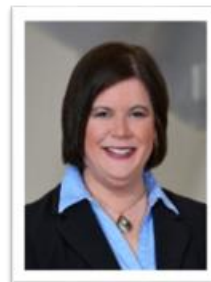
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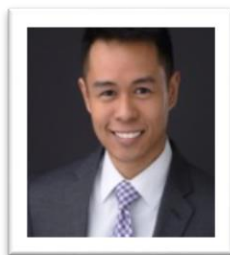
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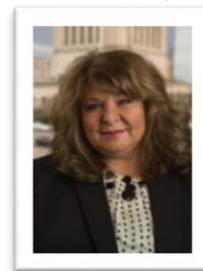
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