SONOMA VALLEY HEALTH CARE DISTRICT
QUALITY COMMITTEE
REGULAR MEETING AGENDA

Wednesday, September 26, 2012
5:00 p.m. Call to Order
5:01 p.m. (Closed Session)
5:20 p.m. (Open Session)

Location: Schantz Conference Room
Sonoma Valley Hospital – 347 Andrieux Street, Sonoma CA 95476

AGENDA ITEM	RECOMMENDATION	
MISSION STATEMENT *The mission of the SVHCD is to maintain, improve, and restore the health of everyone in our community.*		
1. CALL TO ORDER	Carruth	
2. PUBLIC COMMENT SECTION ON CLOSED SESSION	Carruth	
3. CLOSED SESSION: A. Calif. Health & Safety Code § 32155 – Medical Staff Credentialing & Peer Review Report	Smith/Amara	Inform/Action
4. REPORT OF CLOSED SESSION	Carruth	Inform
5. PUBLIC COMMENT SECTION *At this time, members of the public may comment on any item not appearing on the agenda. It is recommended that you keep your comments to three minutes or less, Under State Law, matters presented under this item cannot be discussed or acted upon by the Committee at this time For items appearing on the agenda, the public will be invited to make comments at the time the item comes up for Committee consideration. At all times please use the microphone.*	Carruth	
6. CONSENT CALENDAR: A. Prior Meeting Minutes – August 22, 2012 B. Tracking Report for Uncorrected Items	Carruth/Lovejoy	Inform/Action
7. QUALITY REPORT	Lovejoy	Inform
8. REDUCING WASTE THROUGH UTILIZATION AND RESOURCE MANAGEMENT	Lovejoy	Inform
9. ELECTRONIC HEALTH RECORD UPDATE AND MEANINGFUL USE	Kobe	Inform
10. POLICIES & PROCEDURES: A. Infant Security (revisited) B. Humidity and Temperature Monitoring C. Ice Machine Maintenance	Lovejoy	Inform/Action
11. CLOSING COMMENTS	Carruth	Inform
12. ADJOURN		

6.A.

MINUTES
8.22.12

SONOMA VALLEY HEALTH CARE DISTRICT
QUALITY COMMITTEE
REGULAR MEETING MINUTES
Wednesday, August 22, 2012
Schantz Conference Room

Committee Members Present	Committee Members Absent	Community Members Present	Administrative Staff Present
Kevin Carruth, Chair Sharon Nevins Dr. Paul Amara Dr. Robert Cohen Leslie Lovejoy Jane Hirsch	Dr. Jerome Smith	Howard Eisenstark	Mark Kobe, Director of Nursing

AGENDA ITEM	DISCUSSION	CONCLUSIONS/ ACTION	FOLLOW-UP/ RESPONSIBLE PARTY
MISSION AND VISION STATEMENTS	*The mission of the SVHCD is to maintain, improve, and restore the health of everyone in our community.* *The vision of the SVHCD is that:* *SVH will be a nationally recognized, compassionate place of healing and known for excellence in clinical quality. We serve as the guide and indispensable link for our community's health care journey.*		
1. CALL TO ORDER	5:04 p.m.		
2. PUBLIC COMMENT SECTION ON CLOSED SESSION	There was no public comment.		
4. REPORT OF CLOSED SESSION		**MOTION:** by Nevins; second by Hirsch to forward the Credentialing Report to the Board and carried. All in favor; none opposed	
5. PUBLIC COMMENT *At this time, members of the public may comment on any item not appearing on the agenda. It is recommended that you keep your comments to three minutes or less. Under State Law, matters presented*	Mr. Howard Eisenstark, Community Member, commented that he would like to start attending the Quality Committee meetings going forward.		

AGENDA ITEM	DISCUSSION	CONCLUSIONS/ ACTION	FOLLOW-UP/ RESPONSIBLE PARTY
under this item cannot be discussed or acted upon by the Committee at this time. For items appearing on the agenda, the public will be invited to make comments at the time the item comes up for Committee consideration. At all times please use the microphone.			
6. CONSENT CALENDAR: A. Prior Meeting Minutes 7.25.12 B. Tracking Report for Uncorrected Items	Mr. Carruth recommended to leave the record on Item A as written unapproved, as there was no quorum to vote from the July 2012 meeting.	**MOTION:** by Hirsch; second by Nevins to leave the record on Item A as written unapproved and carried. All in favor; none opposed. **MOTION:** by Carruth; second by Nevins to approve the Tracking Report and carried. All in favor; none opposed	
7. QUALITY REPORT	*Leslie Lovejoy*		
	Ms. Lovejoy reported the priorities for this month are to create the culture of safety training program. Part of the Hospital's strategic initiative this year was to build a more transparent culture, especially on patient safety. Also presented AHRQ survey results earlier this year, which included a program provided by Institute for Healthcare Improvement (IHI) called "Good Catch". It changes the "near miss" idea that could have affected a patient, but didn't and rewards employees and physicians for identifying things that happened. The rollout for leadership training would take place at the Leadership Development Institute in October and train all of the staff in November and December at SVH, including working with the physicians. Redo the Culture of Safety survey in January 2013. In terms of regulatory compliance, the central sterile project was due to be finished on August 15, but would be completed by August 31. SVH was in OSHPD permitting for the Occupational Health and Human Resource. Also, the OSHPD and licensing approval for the emergency repair of the broken water pipes in SNF and in the Phase 1 new construction, licensing was signed off on taking out an emergency exit in the lab and replacing it with emergency egress plan.		Lovejoy to present waste management and Kobe to update on EHR and meaningful use at next month's meeting.

AGENDA ITEM	DISCUSSION	CONCLUSIONS/ ACTION	FOLLOW-UP/ RESPONSIBLE PARTY
	Ms. Lovejoy also mentioned one of the biggest challenges was the transition to EHR and finding some of the data. However, SVH showed improvement in July. She discussed the AMI (Acute Myocardial Infarction) Core Measure Report where the Hospital had scored 100% for second quarter on the key measures. The measures showed heart attack patients who received aspirin within 24 hours of arrival at the hospital; aspirin prescribed at discharge; medicines prescribed for LVSD (left ventricular systolic dysfunction); and Beta Blockers prescribed at discharge. SVH could exceed state and national benchmarks in all of these measures. Ms. Lovejoy further explained the components of the AMI report which are: Heart Failure; Community Acquired Pneumonia; Surgical Care Infection Prevention; Stroke; Immunization, Emergency Department; HOP AMI/Chest Pain; HOP Surgery; and HOP Emergency Department. Lastly, she explained the value-based purchasing calculator, which is a tool for core measures.		
8. SECURITY MANAGEMENT – INFANT SECURITY CODE PINK POLICY	*Leslie Lovejoy*		
	Ms. Lovejoy reported that the Safety Committee had decided to combine Code Pink (infant abduction) and Code Purple (child abduction) in the same policy. She also added that there would be two drills a year and waiting to get final approval. Upon approval, the Hospital would then educate the staff. Mr. Carruth recommended revisiting and revising the policy with minor wording changes.		
9. CLOSING COMMENTS	*Kevin Carruth*		
	There was no closing comment.		
10. ADJOURN	6:04 p.m.		

6.B.

TRACKING REPORT

Quality Committee					
Outstanding Items Log					
Item# & Topic	**Discussion**	**Follow-up**	**Date Due**	**Date Completed**	**Update/Comments**
082511-2 Central Sterile	A TJC citing regarding the potential for cross contamination of instruments. Requires physical plant structural changes in O.R.	Monthly report on progress in Quality Report until completed.	9/22/11		OSHPD Permitted
072512-1 Occupational Health and HR	CDPH returned a directed plan of action.	Monthly report on progress in Quality Report until completed.	8/22/12		At OSHPD
072512-2 Dishwasher Drain	Drain pipes for diswasher in Nutritional Services.	Monthly report on progress in Quality Report until completed.	8/22/12		Beginning the OSHPD process
072512-3	Skilled Nursing Broken Water Pipe	Monthly report on progress in Quality Report until completed.	9/15/12		OSHPD permit and in process

7.

QUALITY REPORT

SONOMA VALLEY HOSPITAL
SONOMA VALLEY HEALTH CARE DISTRICT
Healing Here at Home

TO: Sonoma Valley Hospital Care District Board Quality Committee
FROM: Leslie Lovejoy, Director, Quality and Resource Management
DATE: 9/19/2012
SUBJECT: Quality Report

September Priorities:

1) Team Development
2) Regulatory Compliance
3) Patient Satisfaction

1. **Team Development**
   A. The Studer Group encourages the development of a Measurement Team composed of frontline staff who will champion patient satisfaction efforts with the frontline staff. We identified seven team members from departments across the organization, who will have the following responsibilities:

      - To learn and understand the survey process;
      - To review and interpret survey results; and
      - To provide education to their peers

      Team members attended an orientation meeting and a full hour training meeting, present Press Ganey, on the survey process, sampling and how to read reports this month and will begin project work in October.

The Medicare Break-Even Team was reconvened on Thursday to develop a charter, purpose, goals and brainstorm project priorities. More to come on this team and this meeting's topic for discussion will introduce waste and utilization management and some beginning thoughts on what this team will be doing.

2. **Regulatory Compliance**
   A. California Department of Public Health: We received a request for plans of correction for three self reported HIPAA privacy violations that involved faxing from the lab and from medical records. The hospital has very clear processes for violations and in the case of medical records, an employee was terminated for multiple breeches. A lab process was improved and our Mediscribe vendor has set up an audit process with the medical records director to ensure that errors do not occur on their end.

   B. California Department of Public Health: We are in the middle of a Pharmacy Medication Error Reduction Plan (MERP) Survey. It began last week for three days and is expected to be completed by the end of this Thursday. Findings will be reported at the committee meeting.

   C. The Joint Commission: We had an unannounced validation survey on Tuesday the 18th. The focus was on validating our attestation that we had completed the evidence of standard compliance and Measures of Success data that was submitted after our May 2011 survey. We passed will some added learning opportunities.

D. Construction: Central Sterile is complete and awaiting OSHPD OK; Kitchen dishwasher drain project just begun; Skilled Nursing Broken Pipe Project 50% complete; and Occupational Health /HR move project awaiting final permit.

3. **Patient Satisfaction**

Attached you will find the first three pages of the Press Ganey Patient Satisfaction Survey Summary Report that look at our performance on the measures that directly impact our Medicare reimbursement. Since the Studer Validation survey in August, we have changed our strategy on how we are will improve these scores. While individual departments continue to work on their individual items, we are moving to a global strategy to have the whole organization address two key indicators that everyone can effect. Through the use of "huddle sheets" each department is working on two global issues and one department specific. The organizational priorities for the next three months are noise and explanation of tests and treatments. We have identified key words that staff addresses with each patient/visitor encounter. The strategy is called "key words at key times". While not exactly scripting, we give employees ideas about how to address the key issues. Huddle sheets are distributed in the morning and retrieved at the end of the shift. We will focus on three issues until December.

Since the noise of construction will continue to rise, we are also rolling out a "Pardon Our Noise Campaign". We have ordered standing signs for the patient care unit corridors just outside the elevators that will say: "Shush… Healing in Progress". Signs will be put in the lobby entrance regarding construction and we will be ordering buttons for the employees to wear.

4. **Topic for Discussion**

This month we will be discussing two topics: Reducing waste through utilization and resource management and the Electronic Health Record Update on Meaningful Use.

Next Month: Annual Contracts Evaluation Report
Service Line patient Care Outcomes: Total Joint and Bariatric Programs

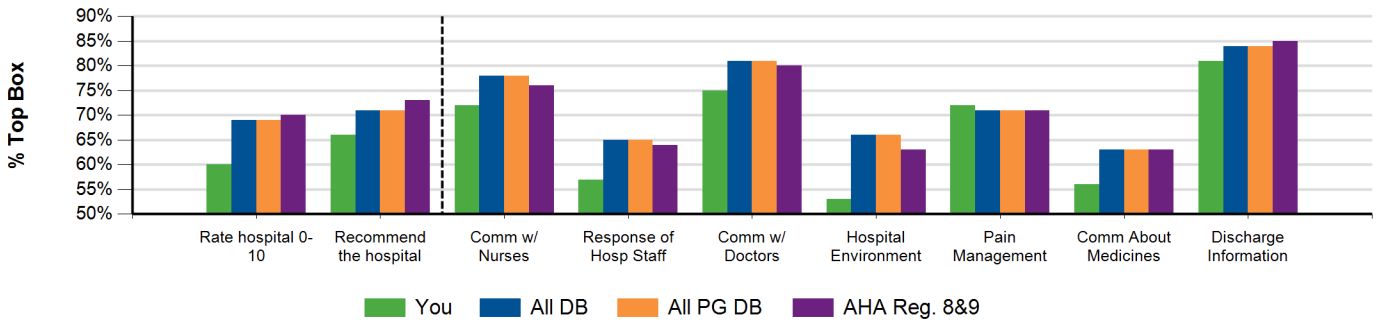
Sonoma Valley Hospital

HCAHPS Summary Report

Surveys Returned: June 2012 - August 2012

Global Comparison

Domain Comparison



		Your Top Box Score			All DB N = 1696	All PG DB N = 1696	AHA Reg. 8&9 N = 230	
Domains and Questions	**n**	**Previous % Mar-May**	**Current % Jun-Aug**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	93	68%	60%	▼	15	15	14	
Recommend the hospital	98	73%	66%	▼	30	30	27	
Comm w/ Nurses	100	78%	72%	▼	12	12	19	
Nurses treat with courtesy/respect	100	88%	85%	▼	46	46	63	
Nurses listen carefully to you	98	71%	69%	▼	16	16	28	
Nurses expl in way you understand	***97***	***73%***	***62%***	▼	***3***	***3***	***7***	
Response of Hosp Staff	90	61%	57%	▼	14	14	17	
Call button help soon as wanted it	84	60%	57%	▼	20	20	25	
Help toileting soon as you wanted	70	61%	57%	▼	13	13	14	
Comm w/ Doctors	100	83%	75%	▼	14	14	15	
Doctors treat with courtesy/respect	100	92%	86%	▼	41	41	49	
Doctors listen carefully to you	97	77%	72%	▼	11	11	13	
Doctors expl in way you understand	99	78%	68%	▼	9	9	9	
Hospital Environment	98	50%	53%	▲	4	4	8	
Cleanliness of hospital environment	96	59%	70%	▲	34	34	43	
Quietness of hospital environment	***97***	***42%***	***36%***	▼	***1***	***1***	***3***	
Pain Management	77	69%	72%	▲	54	54	59	
Pain well controlled	76	64%	66%	▲	63	63	65	
Staff do everything help with pain	77	75%	78%	▲	45	45	50	
Comm About Medicines	72	59%	56%	▼	10	10	10	
Tell you what new medicine was for	68	75%	72%	▼	23	23	23	
Staff describe medicine side effect	71	42%	39%	▼	6	6	6	
Discharge Information	88	90%	81%	▼	26	26	19	
Staff talk about help when you left	85	93%	80%	▼	41	41	35	
Info re symptoms/prob to look for	85	87%	82%	▼	17	17	13	

n = number of respondents
Questions that are among this period's top ten priorities appear in bold italics.
Click here to access the Summary Report Guide

Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to H CAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Noise level in and around room	PG	11	0.40
1	Nurses expl in way you understand	CAHPS	12	0.40
3	Instructions care at home	PG	32	0.42
4	Nurses kept you informed	PG	36	0.48
5	Staff include decisions re:trtmnt	PG	33	0.41
6	Explanations:happen during T&T	PG	31	0.38
7	Room cleanliness	PG	34	0.40
7	Attention to special/personal needs	PG	41	0.48
9	Quietness of hospital environment	CAHPS	7	0.32
9	Pleasantness of room decor	PG	18	0.34

The priority index combines information about your organization's performance and the relative importance of each question to respondents' overall rating. Higher priority is given to those issues that are relatively more important to respondents (higher correlation coefficients) and relatively lower performing (lower percentile rank) for your organization. Questions are listed in decreasing priority. To provide stability, the Priority Index is based on the prior rolling 12 month period.

Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

UNIT COMPARISON	Your Top Box Score Sep 11 - Aug 12				
Domains and Questions	2 South	Birth	ICU	Medsurg	SNF
Rate hospital 0-10	78%	78%	68%	66%	63%
Recommend the hospital	78%	81%	70%	71%	65%
Comm w/ Nurses	65%	87%	84%	75%	69%
Nurses treat with courtesy/respect	78%	90%	98%	86%	83%
Nurses listen carefully to you	56%	83%	83%	73%	63%
Nurses expl in way you understand	***63%***	***88%***	***71%***	***66%***	***61%***
Response of Hosp Staff	72%	82%	74%	60%	46%
Call button help soon as wanted it	67%	88%	71%	59%	40%
Help toileting soon as you wanted	78%	76%	76%	62%	53%
Comm w/ Doctors	74%	97%	79%	78%	77%
Doctors treat with courtesy/respect	89%	100%	90%	88%	84%
Doctors listen carefully to you	67%	95%	79%	74%	76%
Doctors expl in way you understand	67%	95%	67%	72%	72%
Hospital Environment	72%	70%	72%	53%	48%
Cleanliness of hospital environment	78%	57%	82%	66%	73%
Quietness of hospital environment	***67%***	***83%***	***63%***	***40%***	***23%***
Pain Management	57%	76%	79%	73%	66%
Pain well controlled	43%	75%	75%	65%	59%
Staff do everything help with pain	71%	78%	82%	80%	73%
Comm About Medicines	45%	74%	66%	58%	50%
Tell you what new medicine was for	50%	89%	81%	74%	65%
Staff describe medicine side effect	40%	60%	52%	42%	36%
Discharge Information	89%	90%	90%	84%	90%
Staff talk about help when you left	100%	85%	90%	84%	98%
Info re symptoms/prob to look for	78%	95%	90%	84%	82%

Questions that are among this period's top ten priorities appear in bold italics.

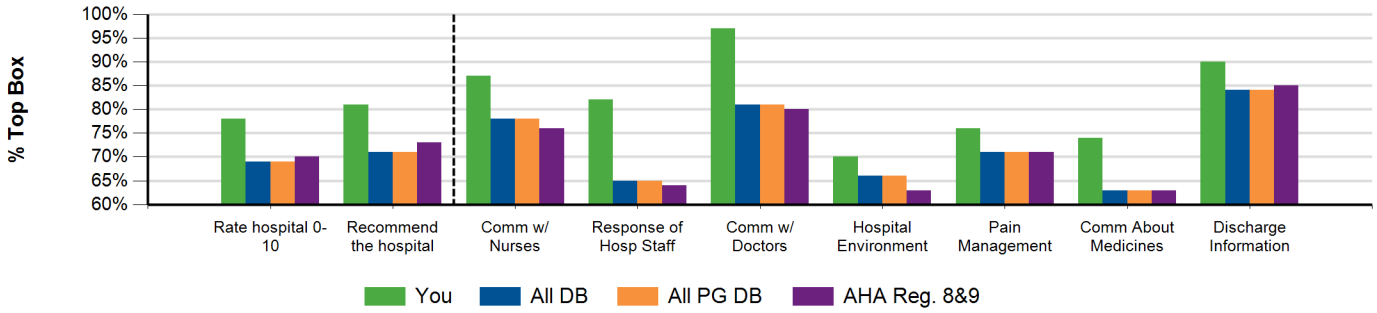
Click here to access the Summary Report Guide

Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



Birth		Your Top Box Score			All DB N = 1696	All PG DB N = 1696	AHA Reg. 8&9 N = 230	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	41	63%	78%	▲	85	85	82	
Recommend the hospital	42	71%	81%	▲	82	82	77	
Comm w/ Nurses	42	82%	87%	▲	96	96	98	
Nurses treat with courtesy/respect	41	84%	90%	▲	86	86	90	
Nurses listen carefully to you	42	74%	83%	▲	90	90	96	
Nurses expl in way you understand	42	89%	88%	▼	98	98	99	
Response of Hosp Staff	37	85%	82%	▼	97	97	96	
Call button help soon as wanted it	34	94%	88%	▼	99	99	99	
Help toileting soon as you wanted	25	75%	76%	▲	86	86	87	
Comm w/ Doctors	42	92%	97%	▲	99	99	99	
Doctors treat with courtesy/respect	42	92%	100%	▲	99	99	99	
Doctors listen carefully to you	42	95%	95%	-	99	99	99	
Doctors expl in way you understand	42	89%	95%	▲	99	99	99	
Hospital Environment	42	60%	70%	▲	71	71	81	
Cleanliness of hospital environment	42	58%	57%	▼	2	2	3	
Quietness of hospital environment	41	62%	83%	▲	98	98	99	
Pain Management	36	75%	76%	▲	84	84	85	
Pain well controlled	36	72%	75%	▲	96	96	95	
Staff do everything help with pain	36	78%	78%	-	44	44	49	
Comm About Medicines	20	66%	74%	▲	95	95	95	
Tell you what new medicine was for	18	71%	89%	▲	98	98	97	
Staff describe medicine side effect	20	62%	60%	▼	91	91	89	
Discharge Information	40	86%	90%	▲	90	90	86	
Staff talk about help when you left	39	83%	85%	▲	72	72	73	
Info re symptoms/prob to look for	40	89%	95%	▲	96	96	95	

Please note that unit-level benchmarking is derived by comparing the unit's performance to all organizations in the peer group. To understand the context of a unit's performance relative to similar units, we recommend using the specialty report pages when those are available.

n = number of respondents
Questions that are among this period's top ten priorities appear in bold italics.
Click here to access the Summary Report Guide

Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Speed of admission	PG	72	0.64
2	Courtesy of person admitting	PG	45	0.53
3	Skill of the nurses	PG	75	0.57
4	Nurses' attitude toward requests	PG	83	0.55
5	Attention to special/personal needs	PG	88	0.61
6	Nurses kept you informed	PG	89	0.53
6	Overall rating of care given	PG	91	0.74
8	Likelihood recommending hospital	PG	91	0.68
9	Room cleanliness	PG	18	0.31
9	Quality of the food	PG	75	0.40

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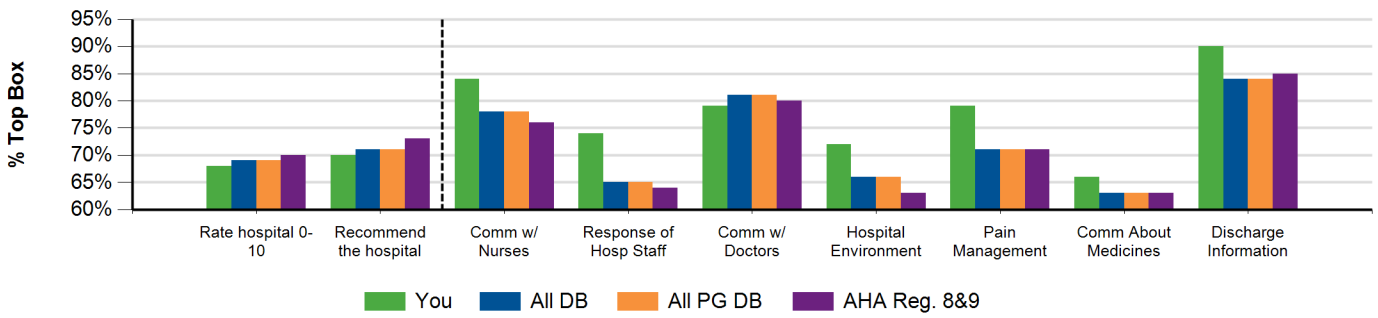
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



ICU		Your Top Box Score			All DB N = 1696	All PG DB N = 1696	AHA Reg. 8&9 N = 230	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	40	61%	68%	▲	41	41	40	
Recommend the hospital	40	69%	70%	▲	43	43	38	
Comm w/ Nurses	40	75%	84%	▲	87	87	93	
Nurses treat with courtesy/respect	40	82%	98%	▲	99	99	99	
Nurses listen carefully to you	40	74%	83%	▲	88	88	95	
Nurses expl in way you understand	***38***	***71%***	***71%***	-	***27***	***27***	***40***	
Response of Hosp Staff	34	60%	74%	▲	84	84	88	
Call button help soon as wanted it	31	56%	71%	▲	80	80	84	
Help toileting soon as you wanted	21	64%	76%	▲	86	86	87	
Comm w/ Doctors	40	87%	79%	▼	34	34	39	
Doctors treat with courtesy/respect	40	90%	90%	-	76	76	80	
Doctors listen carefully to you	38	85%	79%	▼	48	48	52	
Doctors expl in way you understand	***39***	***87%***	***67%***	▼	***6***	***6***	***6***	
Hospital Environment	40	56%	72%	▲	80	80	87	
Cleanliness of hospital environment	39	72%	82%	▲	87	87	90	
Quietness of hospital environment	40	39%	63%	▲	65	65	80	
Pain Management	28	50%	79%	▲	91	91	90	
Pain well controlled	28	39%	75%	▲	96	96	95	
Staff do everything help with pain	28	61%	82%	▲	74	74	80	
Comm About Medicines	27	44%	66%	▲	72	72	74	
Tell you what new medicine was for	26	67%	81%	▲	80	80	77	
Staff describe medicine side effect	27	22%	52%	▲	64	64	65	
Discharge Information	31	85%	90%	▲	91	91	88	
Staff talk about help when you left	31	81%	90%	▲	94	94	94	
Info re symptoms/prob to look for	30	90%	90%	-	70	70	64	

Please note that unit-level benchmarking is derived by comparing the unit's performance to all organizations in the peer group. To understand the context of a unit's performance relative to similar units, we recommend using the specialty report pages when those are available.

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Temperature of the food	PG	13	0.45
2	Nurses expl in way you understand	CAHPS	27	0.40
3	Time physician spent with you	PG	43	0.43
3	Physician concern questions/worries	PG	52	0.46
5	Doctors expl in way you understand	CAHPS	6	0.31
5	Quality of the food	PG	22	0.34
5	Staff addressed emotional needs	PG	54	0.45
8	Room cleanliness	PG	56	0.41
9	Physician kept you informed	PG	64	0.41
10	Courtesy of person cleaning room	PG	50	0.37

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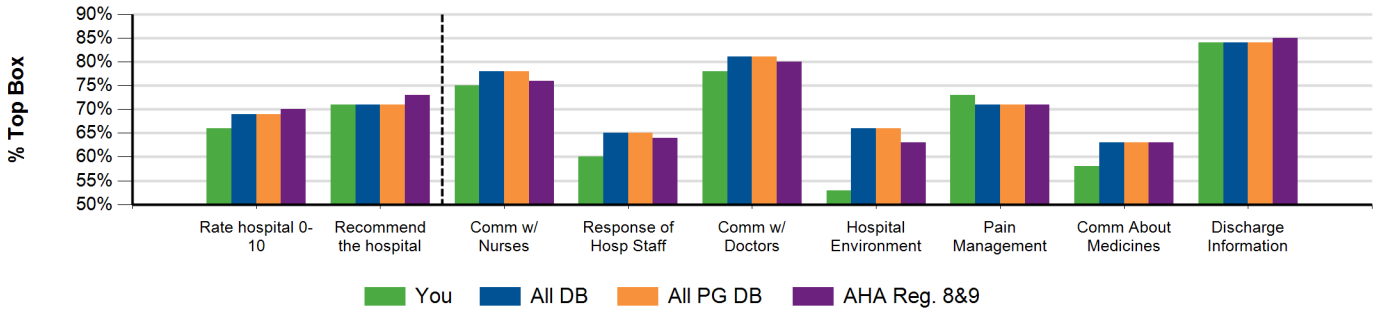
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



Medsurg		Your Top Box Score			All DB N = 1696	All PG DB N = 1696	AHA Reg. 8&9 N = 230	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	292	58%	66%	▲	34	34	34	
Recommend the hospital	296	64%	71%	▲	45	45	40	
Comm w/ Nurses	303	68%	75%	▲	25	25	42	
Nurses treat with courtesy/respect	302	79%	86%	▲	58	58	74	
Nurses listen carefully to you	297	64%	73%	▲	36	36	52	
Nurses expl in way you understand	***296***	***61%***	***66%***	▲	***7***	***7***	***12***	
Response of Hosp Staff	271	46%	60%	▲	25	25	31	
Call button help soon as wanted it	258	42%	59%	▲	27	27	36	
Help toileting soon as you wanted	192	50%	62%	▲	29	29	31	
Comm w/ Doctors	301	74%	78%	▲	33	33	36	
Doctors treat with courtesy/respect	301	83%	88%	▲	64	64	66	
Doctors listen carefully to you	297	70%	74%	▲	19	19	19	
Doctors expl in way you understand	298	69%	72%	▲	27	27	29	
Hospital Environment	299	49%	53%	▲	4	4	8	
Cleanliness of hospital environment	295	63%	66%	▲	17	17	24	
Quietness of hospital environment	294	35%	40%	▲	2	2	6	
Pain Management	212	62%	73%	▲	60	60	67	
Pain well controlled	211	53%	65%	▲	60	60	62	
Staff do everything help with pain	208	71%	80%	▲	60	60	66	
Comm About Medicines	220	46%	58%	▲	20	20	22	
Tell you what new medicine was for	214	64%	74%	▲	37	37	39	
Staff describe medicine side effect	211	29%	42%	▲	11	11	11	
Discharge Information	275	83%	84%	▲	46	46	41	
Staff talk about help when you left	268	87%	84%	▼	71	71	70	
Info re symptoms/prob to look for	263	78%	84%	▲	23	23	19	

Please note that unit-level benchmarking is derived by comparing the unit's performance to all organizations in the peer group. To understand the context of a unit's performance relative to similar units, we recommend using the specialty report pages when those are available.

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Nurses kept you informed	PG	26	0.50
2	Noise level in and around room	PG	8	0.42
3	Pleasantness of room decor	PG	8	0.39
3	Attention to special/personal needs	PG	34	0.50
5	Promptness response to call	PG	31	0.44
6	Instructions care at home	PG	24	0.41
7	Nurses expl in way you understand	CAHPS	7	0.35
8	Room cleanliness	PG	31	0.42
9	Nurses' attitude toward requests	PG	39	0.48
10	Skill of the nurses	PG	34	0.44

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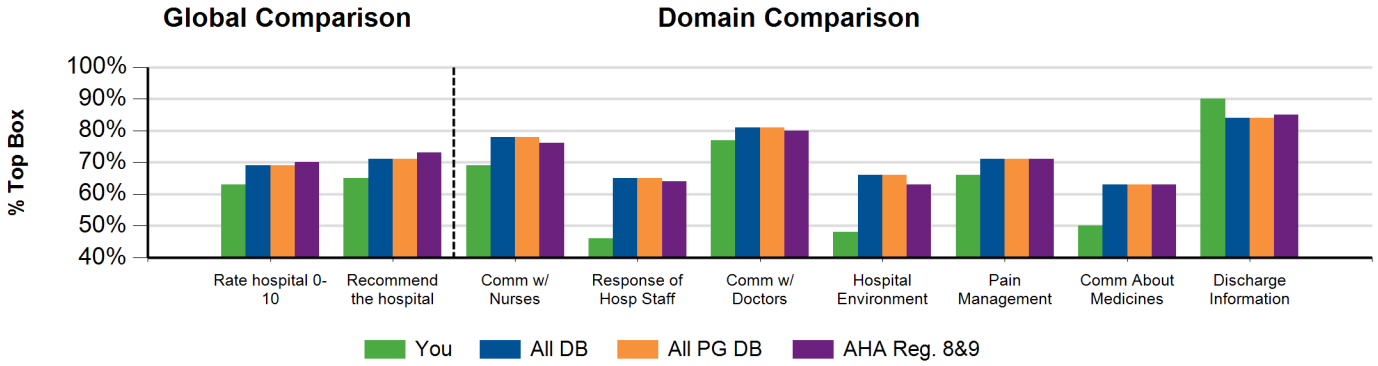
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012



SNF		Your Top Box Score			All DB N = 1696	All PG DB N = 1696	AHA Reg. 8&9 N = 230	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	49	63%	63%	-	24	24	21	
Recommend the hospital	52	62%	65%	▲	28	28	25	
Comm w/ Nurses	53	64%	69%	▲	5	5	10	
Nurses treat with courtesy/respect	53	71%	83%	▲	29	29	42	
Nurses listen carefully to you	***51***	***63%***	***63%***	-	***3***	***3***	***6***	
Nurses expl in way you understand	***51***	***58%***	***61%***	▲	***3***	***3***	***6***	
Response of Hosp Staff	52	49%	46%	▼	1	1	2	
Call button help soon as wanted it	***48***	***46%***	***40%***	▼	***1***	***1***	***1***	
Help toileting soon as you wanted	***45***	***52%***	***53%***	▲	***7***	***7***	***7***	
Comm w/ Doctors	51	71%	77%	▲	26	26	28	
Doctors treat with courtesy/respect	51	79%	84%	▲	26	26	32	
Doctors listen carefully to you	49	68%	76%	▲	26	26	27	
Doctors expl in way you understand	50	67%	72%	▲	27	27	28	
Hospital Environment	53	45%	48%	▲	1	1	2	
Cleanliness of hospital environment	52	66%	73%	▲	54	54	60	
Quietness of hospital environment	53	25%	23%	▼	1	1	1	
Pain Management	41	70%	66%	▼	17	17	15	
Pain well controlled	37	59%	59%	-	22	22	19	
Staff do everything help with pain	40	82%	73%	▼	15	15	18	
Comm About Medicines	41	40%	50%	▲	2	2	2	
Tell you what new medicine was for	37	52%	65%	▲	4	4	5	
Staff describe medicine side effect	39	28%	36%	▲	2	2	1	
Discharge Information	47	79%	90%	▲	90	90	87	
Staff talk about help when you left	46	97%	98%	▲	99	99	99	
Info re symptoms/prob to look for	45	62%	82%	▲	16	16	12	

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Nurses expl in way you understand	CAHPS	3	0.65
2	Nurses listen carefully to you	CAHPS	3	0.51
3	Staff include decisions re:trtmnt	PG	5	0.52
4	Response concerns/complaints	PG	8	0.62
5	Call button help soon as wanted it	CAHPS	1	0.37
6	Explanations:happen during T&T	PG	4	0.41
7	Room temperature	PG	6	0.46
8	Staff concern for your privacy	PG	14	0.51
9	Help toileting soon as you wanted	CAHPS	7	0.42
10	Overall rating of care given	PG	21	0.67

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

SPECIALTY COMPARISON	Your Top Box Score Sep 11 - Aug 12			
Domains and Questions	Intensive Care Unit	Medical/Surgical	Obstetrics	Skilled Nursing
Rate hospital 0-10	68%	66%	78%	63%
Recommend the hospital	70%	71%	81%	65%
Comm w/ Nurses	84%	75%	87%	69%
Nurses treat with courtesy/respect	98%	86%	90%	83%
Nurses listen carefully to you	83%	73%	83%	63%
Nurses expl in way you understand	***71%***	***65%***	***88%***	***61%***
Response of Hosp Staff	74%	61%	82%	46%
Call button help soon as wanted it	71%	59%	88%	40%
Help toileting soon as you wanted	76%	63%	76%	53%
Comm w/ Doctors	79%	78%	97%	77%
Doctors treat with courtesy/respect	90%	88%	100%	84%
Doctors listen carefully to you	79%	74%	95%	76%
Doctors expl in way you understand	67%	72%	95%	72%
Hospital Environment	72%	54%	70%	48%
Cleanliness of hospital environment	82%	66%	57%	73%
Quietness of hospital environment	***63%***	***41%***	***83%***	***23%***
Pain Management	79%	72%	76%	66%
Pain well controlled	75%	65%	75%	59%
Staff do everything help with pain	82%	80%	78%	73%
Comm About Medicines	66%	58%	74%	50%
Tell you what new medicine was for	81%	74%	89%	65%
Staff describe medicine side effect	52%	42%	60%	36%
Discharge Information	90%	84%	90%	90%
Staff talk about help when you left	90%	85%	85%	98%
Info re symptoms/prob to look for	90%	83%	95%	82%

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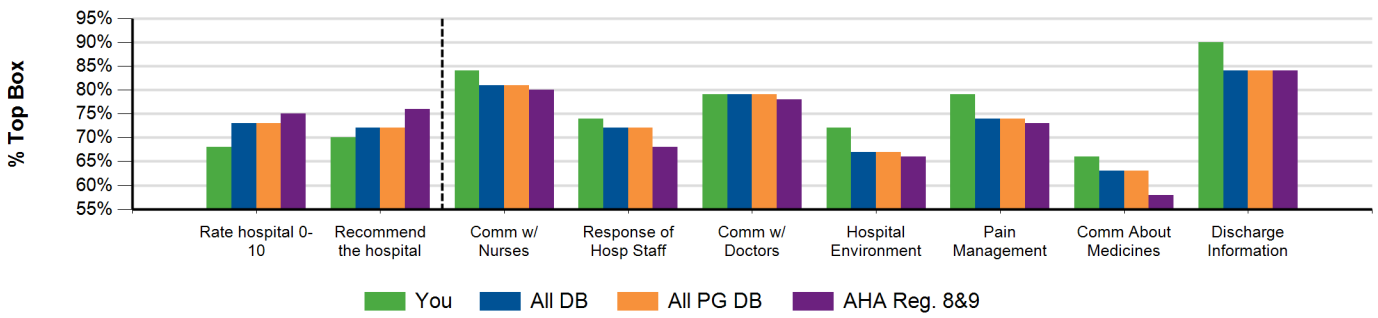
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



Intensive Care Unit		Your Top Box Score			All DB N = 313	All PG DB N = 313	AHA Reg. 8&9 N = 40	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	40	61%	68%	▲	31	31	19	
Recommend the hospital	40	69%	70%	▲	42	42	26	
Comm w/ Nurses	40	75%	84%	▲	56	56	63	
Nurses treat with courtesy/respect	40	82%	98%	▲	88	88	86	
Nurses listen carefully to you	40	74%	83%	▲	61	61	72	
Nurses expl in way you understand	***38***	***71%***	***71%***	-	***25***	***25***	***31***	
Response of Hosp Staff	34	60%	74%	▲	51	51	64	
Call button help soon as wanted it	***31***	***56%***	***71%***	▲	***47***	***47***	***65***	
Help toileting soon as you wanted	21	64%	76%	▲	61	61	73	
Comm w/ Doctors	40	87%	79%	▼	45	45	48	
Doctors treat with courtesy/respect	40	90%	90%	-	67	67	62	
Doctors listen carefully to you	38	85%	79%	▼	53	53	55	
Doctors expl in way you understand	***39***	***87%***	***67%***	▼	***26***	***26***	***32***	
Hospital Environment	40	56%	72%	▲	70	70	67	
Cleanliness of hospital environment	39	72%	82%	▲	64	64	69	
Quietness of hospital environment	40	39%	63%	▲	68	68	77	
Pain Management	28	50%	79%	▲	70	70	75	
Pain well controlled	28	39%	75%	▲	73	73	75	
Staff do everything help with pain	28	61%	82%	▲	57	57	60	
Comm About Medicines	27	44%	66%	▲	62	62	76	
Tell you what new medicine was for	26	67%	81%	▲	73	73	90	
Staff describe medicine side effect	27	22%	52%	▲	53	53	52	
Discharge Information	31	85%	90%	▲	77	77	79	
Staff talk about help when you left	31	81%	90%	▲	79	79	86	
Info re symptoms/prob to look for	30	90%	90%	-	58	58	60	

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Temperature of the food	PG	25	0.45
2	Nurses expl in way you understand	CAHPS	25	0.40
3	Staff addressed emotional needs	PG	41	0.45
4	Physician concern questions/worries	PG	50	0.46
5	Time physician spent with you	PG	43	0.43
6	Room cleanliness	PG	41	0.41
7	Quality of the food	PG	30	0.34
8	Doctors expl in way you understand	CAHPS	26	0.31
8	Courtesy of person cleaning room	PG	40	0.37
10	Accommodations & comfort visitors	PG	26	0.27
10	Call button help soon as wanted it	CAHPS	47	0.37
10	Physician kept you informed	PG	53	0.41

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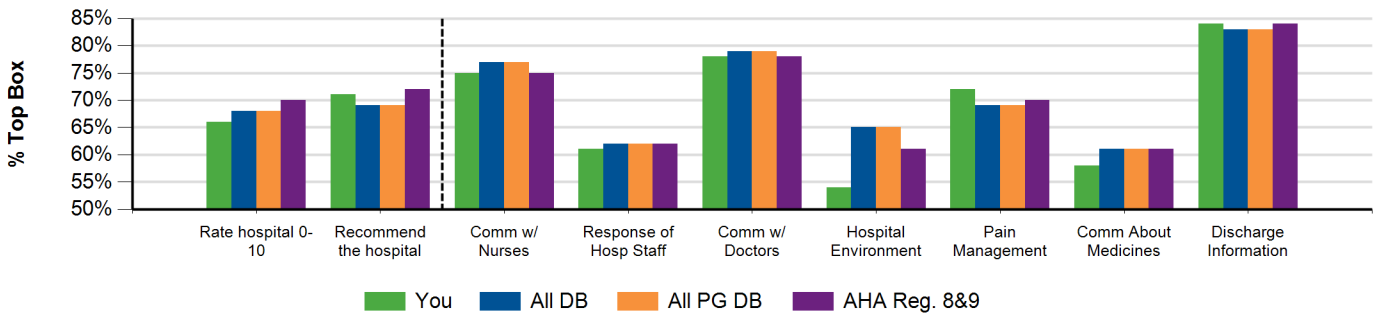
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



Medical/Surgical		Your Top Box Score			All DB N = 831	All PG DB N = 831	AHA Reg. 8&9 N = 97	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	301	58%	66%	▲	42	42	37	
Recommend the hospital	305	64%	71%	▲	53	53	42	
Comm w/ Nurses	312	67%	75%	▲	34	34	43	
Nurses treat with courtesy/respect	311	78%	86%	▲	57	57	70	
Nurses listen carefully to you	***306***	***64%***	***73%***	▲	***42***	***42***	***54***	
Nurses expl in way you understand	304	61%	65%	▲	15	15	24	
Response of Hosp Staff	280	46%	61%	▲	44	44	48	
Call button help soon as wanted it	267	42%	59%	▲	39	39	48	
Help toileting soon as you wanted	201	50%	63%	▲	49	49	44	
Comm w/ Doctors	310	74%	78%	▲	45	45	44	
Doctors treat with courtesy/respect	310	84%	88%	▲	69	69	69	
Doctors listen carefully to you	306	70%	74%	▲	34	34	35	
Doctors expl in way you understand	307	69%	72%	▲	38	38	34	
Hospital Environment	308	49%	54%	▲	10	10	16	
Cleanliness of hospital environment	304	63%	66%	▲	21	21	24	
Quietness of hospital environment	303	35%	41%	▲	9	9	17	
Pain Management	219	62%	72%	▲	63	63	56	
Pain well controlled	218	53%	65%	▲	63	63	59	
Staff do everything help with pain	215	71%	80%	▲	59	59	61	
Comm About Medicines	226	46%	58%	▲	30	30	33	
Tell you what new medicine was for	220	64%	74%	▲	44	44	44	
Staff describe medicine side effect	216	29%	42%	▲	24	24	22	
Discharge Information	284	83%	84%	▲	59	59	52	
Staff talk about help when you left	277	87%	85%	▼	72	72	72	
Info re symptoms/prob to look for	272	78%	83%	▲	38	38	33	

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Nurses kept you informed	PG	34	0.49
2	Noise level in and around room	PG	14	0.43
3	Instructions care at home	PG	37	0.42
4	Pleasantness of room decor	PG	15	0.39
4	Attention to special/personal needs	PG	45	0.50
6	Room cleanliness	PG	37	0.41
7	Nurses listen carefully to you	CAHPS	42	0.42
7	Nurses' attitude toward requests	PG	46	0.48
9	Promptness response to call	PG	43	0.44
9	Skill of the nurses	PG	44	0.45

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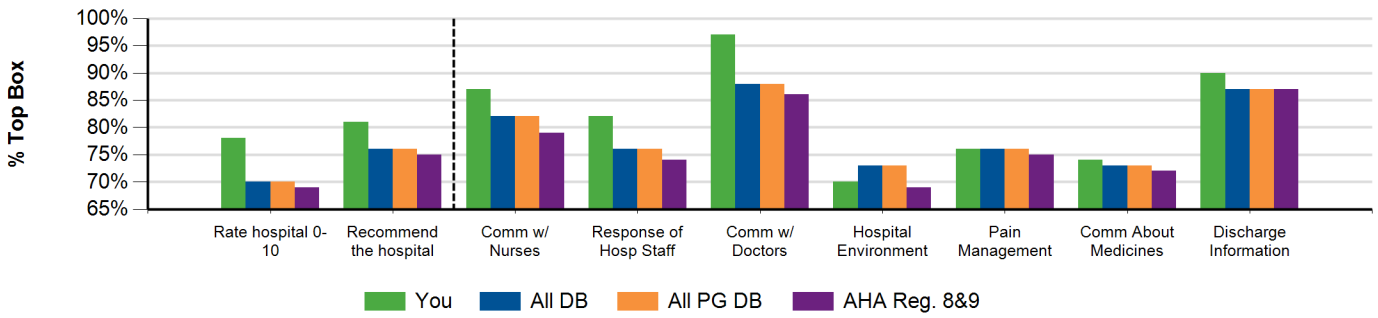
Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Global Comparison

Domain Comparison



Obstetrics		Your Top Box Score			All DB N = 776	All PG DB N = 776	AHA Reg. 8&9 N = 112	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	41	63%	78%	▲	74	74	75	
Recommend the hospital	42	71%	81%	▲	60	60	68	
Comm w/ Nurses	42	82%	87%	▲	75	75	89	
Nurses treat with courtesy/respect	41	84%	90%	▲	70	70	84	
Nurses listen carefully to you	42	74%	83%	▲	72	72	85	
Nurses expl in way you understand	42	89%	88%	▼	82	82	89	
Response of Hosp Staff	37	85%	82%	▼	72	72	84	
Call button help soon as wanted it	34	94%	88%	▼	90	90	96	
Help toileting soon as you wanted	25	75%	76%	▲	31	31	43	
Comm w/ Doctors	42	92%	97%	▲	94	94	99	
Doctors treat with courtesy/respect	42	92%	100%	▲	99	99	99	
Doctors listen carefully to you	42	95%	95%	-	87	87	95	
Doctors expl in way you understand	42	89%	95%	▲	91	91	96	
Hospital Environment	42	60%	70%	▲	38	38	50	
Cleanliness of hospital environment	42	58%	57%	▼	9	9	12	
Quietness of hospital environment	41	62%	83%	▲	75	75	89	
Pain Management	36	75%	76%	▲	50	50	55	
Pain well controlled	36	72%	75%	▲	69	69	73	
Staff do everything help with pain	36	78%	78%	-	22	22	29	
Comm About Medicines	20	66%	74%	▲	56	56	58	
Tell you what new medicine was for	18	71%	89%	▲	57	57	67	
Staff describe medicine side effect	***20***	***62%***	***60%***	▼	***53***	***53***	***58***	
Discharge Information	40	86%	90%	▲	61	61	69	
Staff talk about help when you left	39	83%	85%	▲	68	68	73	
Info re symptoms/prob to look for	40	89%	95%	▲	39	39	44	

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Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Speed of admission	PG	38	0.64
2	Courtesy of person admitting	PG	38	0.53
3	Skill of the nurses	PG	58	0.57
4	Attention to special/personal needs	PG	63	0.61
5	Nurses' attitude toward requests	PG	63	0.55
6	Noise level in and around room	PG	59	0.47
6	Nurses kept you informed	PG	64	0.53
8	Staff include decisions re:trtmnt	PG	32	0.39
9	Room cleanliness	PG	15	0.31
9	Staff describe medicine side effect	CAHPS	53	0.41

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

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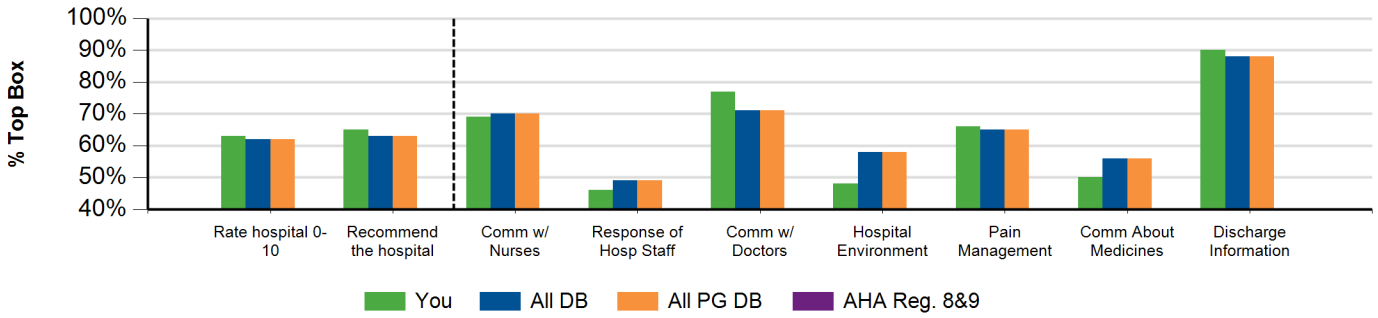

Skilled Nursing		Your Top Box Score			All DB N = 13	All PG DB N = 13	AHA Reg. 8&9 N = 3	
Domains and Questions	**n**	**Previous % Sep 10-Aug 11**	**Current % Sep 11-Aug 12**		**Percentile Rank**	**Percentile Rank**	**Percentile Rank**	
Rate hospital 0-10	49	63%	63%	-	52	52	N<7	
Recommend the hospital	52	62%	65%	▲	62	62	N<7	
Comm w/ Nurses	53	64%	69%	▲	24	24	N<7	
Nurses treat with courtesy/respect	53	71%	83%	▲	57	57	N<7	
Nurses listen carefully to you	51	63%	63%	-	46	46	N<7	
Nurses expl in way you understand	***51***	***58%***	***61%***	▲	***35***	***35***	***N<7***	
Response of Hosp Staff	52	49%	46%	▼	50	50	N<7	
Call button help soon as wanted it	48	46%	40%	▼	45	45	N<7	
Help toileting soon as you wanted	***45***	***52%***	***53%***	▲	***38***	***38***	***N<7***	
Comm w/ Doctors	51	71%	77%	▲	72	72	N<7	
Doctors treat with courtesy/respect	51	79%	84%	▲	73	73	N<7	
Doctors listen carefully to you	49	68%	76%	▲	72	72	N<7	
Doctors expl in way you understand	50	67%	72%	▲	65	65	N<7	
Hospital Environment	53	45%	48%	▲	19	19	N<7	
Cleanliness of hospital environment	***52***	***66%***	***73%***	▲	***45***	***45***	***N<7***	
Quietness of hospital environment	53	25%	23%	▼	12	12	N<7	
Pain Management	41	70%	66%	▼	69	69	N<7	
Pain well controlled	37	59%	59%	-	75	75	N<7	
Staff do everything help with pain	40	82%	73%	▼	49	49	N<7	
Comm About Medicines	41	40%	50%	▲	29	29	N<7	
Tell you what new medicine was for	37	52%	65%	▲	33	33	N<7	
Staff describe medicine side effect	39	28%	36%	▲	32	32	N<7	
Discharge Information	47	79%	90%	▲	50	50	N<7	
Staff talk about help when you left	46	97%	98%	▲	73	73	N<7	
Info re symptoms/prob to look for	45	62%	82%	▲	31	31	N<7	

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Sonoma Valley Hospital

Surveys Returned: September 2011 - August 2012

Survey items are correlated to HCAHPS Overall Rating 0-10				
Order	**Survey Item**	**Source**	**All DB %ile Rank**	**Correlation**
1	Nurses expl in way you understand	CAHPS	35	0.65
2	Response concerns/complaints	PG	37	0.62
3	Staff include decisions re:trtmnt	PG	38	0.52
4	Nurses' attitude toward requests	PG	23	0.40
5	Overall rating of care given	PG	45	0.67
6	Explanations:happen during T&T	PG	34	0.41
7	Help toileting soon as you wanted	CAHPS	38	0.42
8	Likelihood recommending hospital	PG	45	0.52
9	Room temperature	PG	41	0.46
10	Courtesy of person served food	PG	27	0.33
10	Cleanliness of hospital environment	CAHPS	45	0.50
10	Staff concern for your privacy	PG	46	0.51

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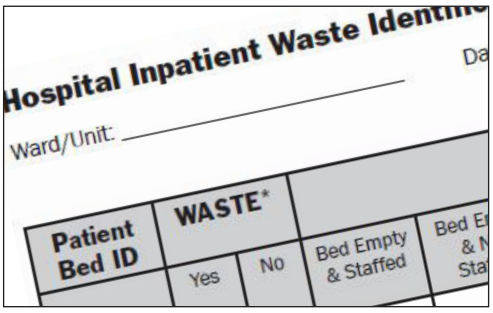
8.

REDUCING WASTE THROUGH UTILIZATION AND RESOURCE MANAGEMENT

Institute for Healthcare Improvement



Innovation Series 2011

Hospital Inpatient Waste Identification Tool

The Institute for Healthcare Improvement thanks the Health Foundation (Registered Charity Number: 286967) for its support in the development of this tool.

The Health Foundation Inspiring Improvement

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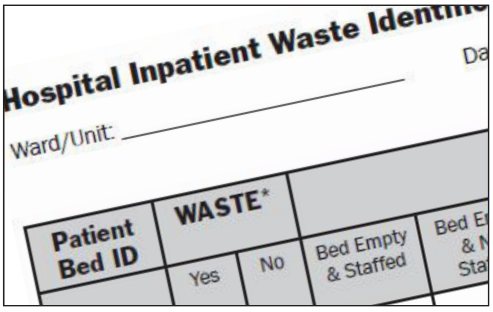

Innovation Series 2011

Hospital Inpatient Waste Identification Tool

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Executive Summary

Within the US and around the world, hospital executives are facing increasing pressure to reduce operating costs and improve quality of care. Hospitals that fare best will be those that become efficient operators and reduce waste in their clinical care. Efforts are underway in many places to reduce waste, improve efficiency, and maintain quality. In December 2009, the Health Foundation in the United Kingdom commissioned the Institute for Healthcare Improvement (IHI) to design and test a tool for identifying clinical waste within the hospital inpatient setting. Through review of existing literature, conversations with experts, and direct input from hospitals engaged in testing, IHI developed the Hospital Inpatient Waste Identification Tool. The Waste Identification Tool was designed to identify clinical and operational waste from the perspective of frontline clinical staff, with the aim of informing strategic decision making for the hospital.

The Hospital Inpatient Waste Identification Tool was developed through two cycles of research and development at IHI. In the first cycle, eight hospitals (six from the UK and two from the US) conducted rapid-cycle testing of the Waste Identification Tool and engaged in one-on-one conference calls with IHI faculty to debrief those tests. The Waste Identification Tool consists of five modules — Ward Module, Patient Care Module, Diagnosis Module, Treatment Module, and Patient Module — that qualitatively identify opportunities for waste reduction. The tool is designed to provide a snapshot of potential areas of waste within a hospital, as identified by frontline clinical staff. Once this snapshot is obtained, representatives of the hospital's frontline clinical staff, finance department, and leadership engage in a process of enriched review and analysis of Waste Identification Tool findings to prioritize waste reduction initiatives that will result in cost savings for the organization.

This white paper describes the Hospital Inpatient Waste Identification Tool, instructs users in how to make best use of it, and offers methods for using Waste Identification Tool findings to inform strategic decisions that will remove waste.

Background

Impetus for This Work

Accelerating health care costs and poor quality have generated headlines in many Western countries in the past few years. Health care expenditures in the United States have tripled, from $714 billion in 1990 to over $2.3 trillion in 2008.[1] In the United Kingdom, health care expenditures have risen from 6.6 percent of the gross domestic product (GDP) in 1997 to 8.4 percent of GDP in 2007, reaching upwards of £118 billion, including public and private spending.[2] At the same time, the health care quality improvement movement has reached a critical point in terms of reach, public consciousness, provider conscientiousness, and impact on patient care. There have never been so many convergent pressures to improve access and quality with fewer resources.

Yet until very recently, the rationale for health care providers to undertake quality improvement (QI) initiatives rested largely on "doing the right thing," and any financial benefit resulting from QI efforts was regarded as an attractive side effect. However, impending health care cutbacks and mounting evidence that better care at lower costs can be achieved provide additional motivation for organizations to identify and reduce waste in clinical care processes.

In the United Kingdom, the Health Foundation has expressed specific concern about waste that occurs through patient care — for example, waste associated with patient flow (the patient being in the wrong place at the wrong time) and inappropriate care (the patient receiving the wrong treatment). At the request of the Health Foundation and as a natural progression in the Institute for Healthcare Improvement's (IHI's) own work on reducing costs and increasing value in health care,[3] IHI conducted a research and development initiative aimed at developing and testing a Hospital Inpatient Waste Identification Tool (referred to in this document as the Waste Identification Tool) that frontline staff can use to identify waste within hospitals. This white paper describes how to use the Waste Identification Tool and its findings in a structured and systematic process of identification, prioritization, and reduction of waste in the inpatient hospital setting.

Definition of Waste

In a broad sense, waste can be considered as any activity or resource in an organization that does not add value to an external customer. Possible examples include wasted materials, movement of people or items from one place to another, inventories, time spent waiting, people working in processes that are not important to the customer, extra steps in a process, repeating work that has been done previously, and more staff than required to match the demand for products and services. Waste identification and reduction has long been a focus for creating efficiency, reducing costs, and improving quality within other industries; carefully targeting waste reduction as a means of reducing costs is now rapidly developing within health care.[3]

For example, within a hospital setting, patients often spend time waiting to transition to a different level of care. This is most certainly wasted time from the perspective of the patient; it also represents waste for the care providers and the organization. A staffed but empty hospital bed is wasted time for the care providers and wasted expense for the organization. Another example is a hospital-acquired infection. Here the patient's time is wasted as he/she is likely to undergo additional treatment or have a longer hospital stay; the caregiver's time is wasted because he/she must provide care that could have been avoided; and the hospital experiences waste as it incurs the added expense of this unnecessary care.

The focus on waste as an important strategy for improving the quality of care and reducing costs has increased in recent years. In 2008, the National Priorities Partnership, a partnership between the National Quality Forum and 28 other business and health care organizations within

the United States, put forth nine national targets for health care overuse to help create more affordable care.[4] In the United Kingdom, the Productive Ward Programme, undertaken by the NHS Institute for Improvement and Innovation, and the NHS Quality, Innovation, Productivity and Prevention (QIPP) activities are examples of efforts to address waste in the delivery of health care.

Efforts to reduce waste in the inpatient hospital setting have not progressed in some areas due to inherent conflicts with hospital revenue or failure to recognize the activity as waste. For example, infections that develop during hospitalization have the potential to add revenue under some payment schemes, although from a population health and resource perspective this represents a waste of resources because these infections are potentially preventable. Due to these complexities, the Waste Identification Tool defines waste without reference to revenue. Obviously, some waste adds to cost, some waste adds to revenue, and some waste both adds to cost and detracts from revenue. Because of this variation in financial environments, how waste impacts the hospital's bottom line must be determined on an organization-specific basis.

The academic literature reveals relatively little information about the system-wide or societal perspective of hospital waste. IHI conducted an expanded search of non-academic research — white papers, statements from national research bodies, and reports from consulting firms in the US and the UK — to understand hospital waste priorities. The sources of this information included IHI, the National Quality Forum (NQF), the Agency for Healthcare Research and Quality (AHRQ), and the Institute of Medicine (IOM) in the US, and the NHS Institute for Innovation and Improvement in the UK, among others. The most commonly cited sources of clinical waste (as opposed to administrative or operational waste) were the following: adverse events and complications; inappropriate use of clinical services or providers; overuse of clinical services such as diagnostic procedures, medications, or other treatments; hospital readmissions; lack of care coordination, leading to duplication and rework; unwarranted variation in care when strong scientific evidence exists; and delays.

Based on the literature review and a series of key informant interviews, IHI identified three broad categories of clinical waste to provide a structure for initial work in this area: adverse events and complications, inappropriate use of clinical services or providers, and delays in or lack of care coordination. In addition, IHI identified specific markers of these categories of waste and ways they might be identified or reveal themselves on a ward or inpatient unit (e.g., a readmission might be an indicator of either a complication or a lack of care coordination) (see Table 1). Leaders and frontline clinicians strongly recommended that the Hospital Inpatient Waste Identification Tool include the patient and family perspective on unnecessary or unwanted care.

Table 1. Categories of Clinical Waste in the Hospital Setting

Category	Adverse Events and Complications	Inappropriate Use of Clinical Services or Providers	Delays in or Lack of Care Coordination
Definition	Adverse events and complications in an inpatient setting	The systematic use of more (or fewer) resources than necessary (e.g., treatment, setting, provider, equipment)	Inefficiencies in flow, throughput, communication, and coordination between providers, and between patients, providers, and families
Examples of Waste	• Readmissions • Healthcare-associated infections • Central line infections • Surgical site infections • Ventilator-acquired pneumonias • Procedure-related complications • Adverse drug events	• Unwanted end-of-life services • CT scan or MRI instead of an x-ray • Longer than expected length of stay (LOS) • Unnecessary hospitalization • Inappropriate use of antibiotics	• Delayed laboratory results • Readmissions • Longer than expected LOS • Bed held for admission or transfer • Bed held for surgical patient or medical patient • Artificial variability or inappropriate scheduling due to lack of coordination

Current Strategies Employed by Hospitals to Reduce Clinical Waste

As part of the development of the Hospital Inpatient Waste Identification Tool, IHI conducted a series of interviews with quality leaders across the United States to obtain a better understanding of the current practices in place to reduce waste. Although all of the organizations included in these interviews were addressing waste reduction, their efforts were focused primarily on administrative and operational waste — for example, using Lean tools to create more efficient laboratory or billing practices. Few organizations were reporting success using a waste reduction approach to dealing with clinical inefficiencies.

In addition, efforts to reduce waste were not systematic. Projects to reduce cost were conducted in disconnected and unstructured manners; our informants did not have processes or an infrastructure in place for identifying existing waste, nor were they basing strategic priorities for an organization-wide waste reduction effort on the actual financial implications for the organization's bottom line.

Using the Hospital Inpatient Waste Identification Tool

Design Principles

The Hospital Inpatient Waste Identification Tool was designed to identify waste using a simple, real-time approach. Specifically, the Waste Identification Tool was designed according to the following design principles:

- **Qualitative Analysis:** The purpose of the Waste Identification Tool is to identify and categorize potential waste from the perspective of frontline clinical staff in order to identify strategies for waste reduction and create the engagement necessary for successful implementation of these strategies. This is accomplished through a qualitative assessment of an area or specific patient processes where potential waste is documented as either present or not. The tool does not specify the amount, seriousness, or cause of waste. This is to ensure a simple, non-burdensome process that frontline staff can conduct.
- **Clear Articulation of Waste Types:** Each of the Waste Identification Tool's modules includes clearly articulated "waste types" — i.e., similar forms of waste that may occur in significant volume and are measurable — and is structured as a one-page worksheet that may be easily understood and used. The one-page worksheet is designed for data to be collected by a frontline reviewer in real time, and also includes a companion instruction page to guide the reviewer's efforts. Each waste type is intended to be unique to minimize overlap.
- **Frontline Staff Approach:** An essential factor in the development of the Waste Identification Tool is that the waste is identified and data is collected by frontline clinical staff — physicians, nurses, and other clinical staff providing direct patient care. Frontline staff are closest to the work and best positioned to identify potential waste. Given the Waste Identification Tool's overall objective of identifying waste to inform the organization's future waste reduction efforts, the engagement of frontline clinical staff helps to ensure successful implementation of waste reduction strategies.

Testing

IHI initially tested the Hospital Inpatient Waste Identification Tool with participating hospitals between December 2009 and March 2010, beginning with the design and testing of the Ward Module. Initial waste types identified for testing were informed by our original literature reviews and focused on delays and adverse events, including hospital-associated infections and unnecessary hospitalizations. Participating hospitals conducted the first test as a small-scale, proof-of-concept test to determine whether frontline staff could review all beds in a particular ward and, using a simple form with basic definitions, indicate whether the bed was occupied and, if so, whether the patient occupying the bed had experienced an adverse event, an infection, an unnecessary hospitalization, or a delay in care (all forms of waste). Having established that this form of data collection and waste identification was feasible and meaningful to frontline staff, the hospitals testing the tool then focused

more closely on refining the identification and definition of the waste types in the Ward Module until sufficient knowledge was acquired. IHI then used a similar process to develop and test additional modules in the Waste Identification Tool.

The frontline clinical staff testers of the Waste Identification Tool from the eight participating organizations were, in most cases, nurses and physicians providing direct patient care. The testers used the Waste Identification Tool in a variety of hospital settings, including medical inpatient wards, elective surgery wards, and emergency admissions units. The feedback from frontline testers of the Ward Module informed the development of the subsequent modules. In particular, although the Waste Identification Tool was originally intended to identify clinical waste, there are instances when a waste type could be identified as both operational and clinical. For example, a patient awaiting discharge may be delayed both because of a need for a clinical consult (clinical waste) and because arrangements for transfer have not yet been coordinated (operational waste). Rather than force frontline staff into potentially confusing and disengaging deliberations about definitions of operational versus clinical waste, these distinctions were removed. In addition, testers frequently asked for greater clarity of definitions. Consequently, the IHI team took great care to ensure that definitions were clear to frontline staff and that necessary explanatory detail was easily available within the Waste Identification Tool itself. Testers also consistently requested more concrete examples for each waste type; examples are now included in the Waste Identification Tool as a series of clear bullet points (see Table 1).

One of the major issues in developing the Waste Identification Tool centered on the frontline testers' discomfort and/or perceived inability to deem another clinician's care or treatment of a patient as inappropriate. In order to maintain the strong engagement of frontline staff in developing and testing the Waste Identification Tool, and to ensure the creation of a resource that would be used by frontline staff going forward, the IHI team decided that reviewers would not be required to make these judgments explicitly. For example, in the Diagnosis Module, users review hospital admission orders for the presence of specific diagnostic tests that often are unnecessary. Rather than ask clinicians to decide on the *appropriateness* of those tests, reviewers only affirm *whether* the test (which is often overused) was requested. The Waste Identification Tool then reports the presence or absence of these tests that are often considered wasteful, and signals the need to explore further if they are present in large numbers. As such, decisions related to the appropriateness of care are not made at the point of data collection, but rather through further analysis and conversation taking place with members of the frontline staff, finance, and hospital leadership.

Through this process of initial design and testing, the Waste Identification Tool demonstrated strong face-validity with the frontline staff involved in testing the tool. However, utilizing the tool findings obtained by the frontline staff to set priorities and assign resources for successful execution of a waste reduction portfolio of projects requires engagement of other key members of the hospital. To design for this, IHI conducted a second R&D cycle to answer the following questions:

1. Can the Waste Identification Tool be used to stimulate frontline engagement in waste reduction strategies and execution?
2. The Waste Identification Tool has demonstrated face-validity with frontline staff; does it also resonate with hospital leadership?
3. How will hospitals use the information generated through use of the Waste Identification Tool by frontline staff?
4. Can use of the Waste Identification Tool be integrated with ongoing waste reduction strategies?
5. Will the waste reduction strategies result in "dark green dollar" savings (i.e., savings that are realized at the bottom line) for the hospital?
6. How does this method of waste identification and priority setting compare to other successful methods used by hospitals? What are the advantages and disadvantages of the Waste Identification Tool compared to these other approaches?

IHI's testing of the Hospital Inpatient Waste Identification Tool continued with a focus on providing answers to these questions through the design of a process for turning Waste Identification Tool findings into a strategy for reducing waste. We believed that through engagement and productive discussions with frontline staff, finance, and hospital leadership, it would be possible to set strategic priorities, estimate the results, and plan for the successful execution of waste reduction initiatives. Our aim was to further build and test methods that would help hospitals identify, prioritize, and then reduce waste in processes for delivering patient care while improving quality and ultimately reducing expenses for the organization. The specific deliverables for this phase of testing were the following:

- Test and document a process of conducting additional analysis of findings from the Waste Identification Tool and determining waste reduction priorities through the engagement of frontline staff, finance, and leadership.
- Validate the theory that the Waste Identification Tool is unique in its ability to stimulate frontline staff engagement.
- Develop a framework and methods to guide the development and execution of a balanced portfolio of waste reduction projects that result in expense reduction for the hospital.

While still an area of learning, the process for moving from waste identified to waste removed begins with analyzing the findings, estimating the impact of waste removed, and using that information to establish priorities for improvement initiatives.

Methodology

Data collection using the Hospital Inpatient Waste Identification Tool is similar to the process of conducting a point prevalence study: waste is measured at a specific point in time. Measurement is based on a simple analysis as to whether each type of potential waste is assessed as either "yes"

(present) or "no" (not present). It is not the goal at this stage to look for mitigating factors or determine the degree or severity of any type of waste; the sole purpose of the Waste Identification Tool is to determine *the presence of potential waste at the time of evaluation*. This allows insight into the likely prevalence of a given type of waste. Additional information is needed to determine the impact of waste by further investigating its actual prevalence and measuring its financial effect on the organization.

After the initial data collection by frontline staff, reviewers measure waste using a simple calculation of percent of beds with waste (i.e., percent of beds or patients with one or more types of waste identified). The denominator varies for each module depending on the unit of measure.

It is best to start by conducting a small test of the Waste Identification Tool using only one module. Hospitals often start with the Ward Module and then use additional modules to provide greater understanding of the waste that exists.

To begin, identify one or more individuals to conduct the test on one inpatient ward or unit. Use the following as a guiding principle for selecting the individual(s) as the frontline reviewer(s): keep the review as close to the frontline as possible.

The Waste Identification Tool was designed to be conducted by those most familiar with the patients and care delivered on the unit or ward being reviewed. In some cases, physicians will need to be considered frontline. In others, the nursing staff is best suited. There will be occasions during which the frontline reviewer(s) will need to obtain additional information from other members of the care team to make an evaluation. It is important that these instances are rare and that most judgments are able to be made by the designated frontline reviewer. As organizations gain experience with the Waste Identification Tool, they will learn which members of their frontline team are best able to serve as reviewers for various modules and waste types. Some organizations have found great value in using multidisciplinary teams for their reviews.

If the reviewer is not a direct caregiver on the unit or ward of focus, he/she should complete the test in collaboration with the most appropriate frontline clinical staff member for the patients in the beds being evaluated. The module reviews are easiest and most informative if the reviewers communicate directly with the hospital staff who are most familiar with the patients in those beds.

The following process can be used for testing any module:

- Identify an inpatient ward (unit) to review — i.e., any ward that currently has inpatients in designated beds who are receiving care.
- Identify a reviewer. The review is best conducted by a mid-level or frontline staff person who is familiar with daily ward care and has a good understanding of medicine. Examples include a nurse, physician, case manager, or knowledgeable mid-level nurse manager or matron.

- Select the appropriate worksheet and instructions for the module you are testing (see Appendix B for Waste Identification Tool worksheets and instructions for each module). The reviewer should visit the ward or unit to assess each item in the worksheet. This should be done in person — not via phone, or by electronic or other remote communication.
- For every unit of measure (e.g., patient or bed), place a mark in the appropriate column in the worksheet to indicate that the type of waste listed is present.
  - The answer as to whether a waste type applies is based on the review occurring at that moment in time. Past events are only applicable if they affect the current status of bed use (e.g., readmission for heart failure would be considered a "yes" in the Unnecessary Hospitalization waste type of the Ward Module for any day of the patient's stay).
  - Direct communication is the best method for obtaining some information in some modules; the reviewer should ask those staff caring for the patient directly. Bedside nurses will likely be able to answer many items in the worksheet. The worksheet questions may also be asked of physicians and other clinical staff if they are present at the time of review. Direct communication has enormous value and engages frontline staff in the process.
  - Review of the case notes or patient record is necessary for obtaining information in some modules or for situations when the bedside nurse is not available. Refer to the instructions for each module for recommendations on sources of information.
  - In a few cases, it may be necessary to contact additional clinical staff to answer items in the worksheet. This should be rare and it is recommended that reviewers spend limited time contacting others, as this could significantly lengthen the review time and ultimately is not likely to provide value-added information.
- Note the number of beds or patients (depending on the module) with any waste identified in the appropriate space on the worksheet. The percentage is calculated as the number of beds or patients, divided by the total number reviewed.
- Space is provided in the worksheet to sum the number of each individual waste type (e.g., Healthcare-Associated Infection). This information will be helpful for assessing the impact of a specific waste type on improvement efforts going forward.
- When reviews progress to multiple wards or units, use one worksheet per ward or unit.

Modules in the Hospital Inpatient Waste Identification Tool

Note: All modules, along with instructions and definitions, are included in Appendix B.

This section describes in detail each of the modules in the Waste Identification Tool. It is important to note that we encourage organizations to think of each module as contributing key information to a larger "story" about waste that may exist in the organization. After selecting a unit(s) or ward(s) of focus for review with the Waste Identification Tool, hospitals can gain tremendous value in conducting multiple modules on those same unit(s) and ward(s). For example, if reviewers seek to

understand the waste that exists on a hospital medical unit, they may want to use both the Patient Care and Treatment Modules. The Patient Care Module might provide evidence that invasive tools (such as urinary catheters) are in use longer than needed by the patient. The Treatment Module might indicate that patients receiving anticoagulants are not getting the treatment indicated in the hospital's standard protocol. To provide further information, reviewers might use the Patient Module to learn about potential waste from the perspective of the patient. Each module provides a distinct but valuable perspective on opportunities for waste reduction.

Ward Module

Waste in this module is assessed in hospital geographic areas in which patients are placed into beds for care. This includes the traditional inpatient care areas of medicine and surgery and other locations such as Accident & Emergency (A&E, or the emergency department), admission wards, intensive care, or any holding areas. The primary focus in this module is waste related to bed utilization; thus, for some waste types, only certain events are included. For example, not all healthcare-associated infections, adverse drug events, and procedure complications result in hospital admission or increased length of stay; this module only includes those that do. Because it is not always clearly documented when the hospital stay is lengthened by one of these events, reviewers need to rely on the judgment of those caring for the patient. The denominator for this module is the total number of all beds, including those in use and not in use.

Example

Table 2 shows an example of a completed Ward Module worksheet (note that the worksheet has been slightly customized by the hospital). In this particular hospital, the Ward Module was tested on four types of units: a trauma surgical intensive care unit, a critical care unit, a cardiovascular intensive care unit, and a burn unit. The primary reviewer, a physician working on these four units, used the Waste Identification Tool on a total of 19 beds. Using the examples provided in the worksheet, if waste was identified as being present for the bed being reviewed, the reviewer reported "yes" and checked the column designating the type of waste. A short but informative description providing a bit more detail on the waste was also included to aid in conversations about future waste reduction efforts. These comments allow the reviewer to include additional detail that will provide further insight into the waste identified — for example, possible trends that may be occurring. The example shows that 16 of the 19 beds had some form of waste, equaling 84 percent waste; moreover, the completed worksheet clearly shows a trend with regard to delays related to end-of-life issues. The worksheet will then be reviewed and discussed by a team of frontline reviewers, members of finance, and hospital leadership to make decisions about what initiatives to put in place to reduce waste in those areas of most prevalence with biggest financial impact for the organization.

Table 2. Sample Completed Hospital Inpatient Waste Identification Tool Worksheet: Ward Module

Unit: ICU **Date:** April 10 **Reviewer:** Physician

Patient Bed ID	WASTE		Waste Types						
	Yes	No	Nosocomial Infection	Adverse Drug Event	Procedure Complication	Unnecessary Hospitalization	Flow Delay	Clinical Care Delay	Comments
T-1	X								Awaiting PICC IR
T-2	X				X				Lap chole comp
T-4	X							X	Futility EOL, family
T-5	X						X		
T-7	X							X	No plan
T-8	X						X		No drip on floor, Pt. walking around ICU
T-9		X							
T-10	X						X		No (insulin) drip on floor
B-S								X	No OR til Friday
B-T	X						X	X	Card. Consult, no family meeting, EOL
B-O	X							X	Pt. fell, No OR til Friday
B-S		X							
C-M	X						X		End of Life (EOL)
C-A		X							
C-J	X							X	Trach Collar trial not done
V-R	X							X	Awaiting trach & G-Tube
V-A	X		X				X		Inf & EOL futility
V-A	X				X		X		Pneumothorax & EOL futility
V-P	X		X		X				Graft inf. & hematoma

Total number of beds with any waste identified **16**

Percent of total beds reviewed **84**

TOTAL BEDS REVIEWED **19**

The Waste Identification Tool was designed to be simple to use; in this example, the review was completed in 15 minutes. The provider conducting the review knew the patients well and was familiar with their care. In addition to showing areas where waste may be occurring, this completed worksheet also highlights in actual counts what "frustrates" patients and clinicians on a daily basis.

Patient Care Module

In this module, the form of waste captured is unnecessary patient care, particularly treatment that is no longer needed based on changes in patient condition. It includes the following waste types:

- Monitoring
- Invasive tools
- Medications
- Tests
- Therapies

When this module is used, each patient in a bed is assessed to determine if any patient care has been given in the designated waste types that seems to be unnecessary. Very often the care was appropriate when it was initiated for the patient, but was continued longer than necessary. Examples include central lines, prophylactic antibiotics, daily lab tests, and therapies such as physical therapy.

Note: This module has had only four tests by frontline staff. When nursing staff complete this module without involvement of physicians and other clinical staff, it seems to be challenging to determine whether the care is needed any longer. A multidisciplinary team may be more effective in conducting reviews for this module. Further testing of this module is warranted.

Diagnosis Module

At the time of hospital admission, or prior to a surgical procedure, diagnostic tests and procedures may be required to complement a comprehensive history and a complete physical examination. However, the literature suggests that many such tests and procedures are either overused or misused. The Diagnosis Module looks at these types of waste by starting with tests and procedures that are requested as a matter of "routine" on admission or done preoperatively rather than based on the patient's signs, symptoms, and predicted diagnosis.

This module only measures whether common diagnostic tests or procedures were requested or not ("yes" or "no"). Some may have been necessary and appropriate for particular patients, so at this level they are considered as "possible" waste. Further analysis occurring later in the process of utilizing the review findings will be needed to determine the amount of actual waste.

This module has two categories of waste types:

- Hospital admissions
- Preoperative evaluation

The review should be conducted on a selected ward or inpatient unit.

The following are examples of tests that should be considered as possible waste when requested on admission (i.e., in physician orders at the time of admission and within first 12 hours) or prior to surgery:

- Urinalysis
- Thyroid function studies
- Electrocardiogram (ECG)
- Chest x-ray (CXR)
- Metabolic panel (typically includes glucose, electrolytes, proteins, kidney function tests, and liver enzymes)

Reviewers determine only whether or not the test was requested.

Treatment Module

The Treatment Module assesses whether treatments supported by scientific evidence are provided, based on an assumption that such treatments will minimize waste resulting from use of other potentially medically unnecessary resources or from complications. Most hospitals apply science to treatment through protocols, guidelines, order sets, or other standardized approaches to care. There is no attempt in this module to validate whether the treatment is appropriate in individual cases.

The Treatment Module defines several types of potential waste, using the definitions in the literature and consensus treatment recommendations by expert organizations:

- Anticoagulation
- Glucose management
- Postoperative treatments for high-volume procedures
  - Elective hip or knee replacement
  - Coronary artery bypass graft
  - Cardiac valve replacement
  - Femoral-popliteal bypass graft
- Pain control

This is certainly not a comprehensive list, as there are other clinical topics with accepted treatment guidelines backed by science that may be included in future modules or versions. A first assessment using these four areas may provide important insight as to the application and use of standards in a hospital.

Early testing of this module has shown some reluctance among the nursing staff to label waste in instances in which the evidence base was not used. Validating that these four types of potential waste are actual waste and expanding the testing are warranted to learn more about this module.

Patient Module

The Patient Module is meant to determine what patients perceive as helpful and valuable in their inpatient care. Although most patients do not have the background in health sciences, patients often have significant insight into possible waste that has occurred during their hospitalizations.

This module uses a different measurement methodology from the other modules. The Patient Module uses an interview technique to gather qualitative information about possible waste from the patient's perspective, rather than counting the incidence of potential waste.

Example

The Patient Module was tested in an interview at one of the test hospitals with a 54-year-old male with recent hip replacement. The patient cited the following specific examples of waste:

- An EKG was done the day of surgery, but had also been done in the internist's office two days before surgery.
- Sequential compression devices kept falling off and never seemed to work.
- The physical therapy department continued walking the patient even after he was walking on his own without difficulty.
- Portion sizes for meals continued to be large even though the patient requested smaller portions at least three times.

Customizing the Hospital Inpatient Waste Identification Tool

An important principle during the design of the Hospital Inpatient Waste Identification Tool was to ensure it could be customized to maximize its effectiveness for an organization's unique setting. Although the Waste Identification Tool has proven to be very useful for hospitals in its original format and as included in this white paper, some organizations may find value in customizing the tool to obtain more specific information about existing waste or to apply the Waste Identification Tool to non-acute care settings.

When considering whether to customize the Waste Identification Tool, it is important to keep the following in mind:

- Customization may focus on any setting, whether inpatient or outpatient (some early testing is even underway to apply the Waste Identification Tool to administrative processes), as long as the frontline approach is used.
- The concepts of qualitative evaluation (responding "yes" or "no" to whether waste is present at the time of review) and involving the frontline staff are important.
- Clearly identify and define any of the waste types to be considered.

The simple customization process is outlined below in three steps.

Step 1. Define the Denominator

The first step in customizing the Waste Identification Tool is to define the denominator to be used for conducting reviews. Sample denominators include the following:

- Total number of beds on a ward or unit
- Total number of operating rooms in a hospital
- Total number of examination rooms in a clinic
- Any unit of repetitive work (e.g., consecutive MRI scans, physical therapy appointments, or ABGs)

Step 2. Articulate and Define the Waste Types

Once you have determined your denominator, and based on your knowledge of potential existing waste, articulate the likely waste types to be identified through use of the customized Waste Identification Tool.

- Clearly define what you consider to be waste for each waste type so that frontline staff conducting the review have no difficulty making a qualitative ("yes" or "no") decision about whether waste is present.
- Use the originally designed modules (Ward, Patient Care, Diagnosis, Treatment, or Patient) as a template when building a worksheet for your customized module and waste types.

Step 3. Conduct Tests of the Customized Version

To determine whether your customization will obtain the information that is desired and most helpful to you, conduct a small-scale review (on one unit or ward) using the customized module or waste type(s) and then review the information obtained.

Testing customized versions of the Hospital Inpatient Waste Identification Tool has only recently begun. However, testing organizations have found customization to be very easy and valuable to their efforts to identify waste. Below are two examples of how the Waste Identification Tool has been customized:

- A hospital-based home health agency customized the Waste Identification Tool, creating a new module for use in their Patient Accounts Department with their home care billers. This module is being used to identify waste related to partially paid or denied billing claims. The frontline team, in this case the billers, determined the waste types based on the most common issues encountered and, because of their involvement in the customization process, are very engaged and excited about its use. The customized Waste Identification Tool is located on a shared computer drive within the organization for use as a communication tool and central repository for follow-up notes and

resolution. Details ranging from documentation of the denial to follow-up or resolution, as well as tracking of percent of gross revenue denied, are now in one place, eliminating duplicative emails and spreadsheets and allowing for identification of denial trends.

- A large health care system customized the Waste Identification Tool for use in its office practices. Based on the Ward Module, the frontline team helped identify waste types appropriate for this setting. A few of the examples of waste types being tested include: exam room contains non-functioning equipment; room used inappropriately; patient in room but physician is not in clinic; patient in room is dilating; patient in room waiting for diagnostic testing; and patient in room longer because initial paperwork is incomplete.

Utilization of Hospital Inpatient Waste Identification Tool Findings

A Process for Setting Waste Reduction Priorities

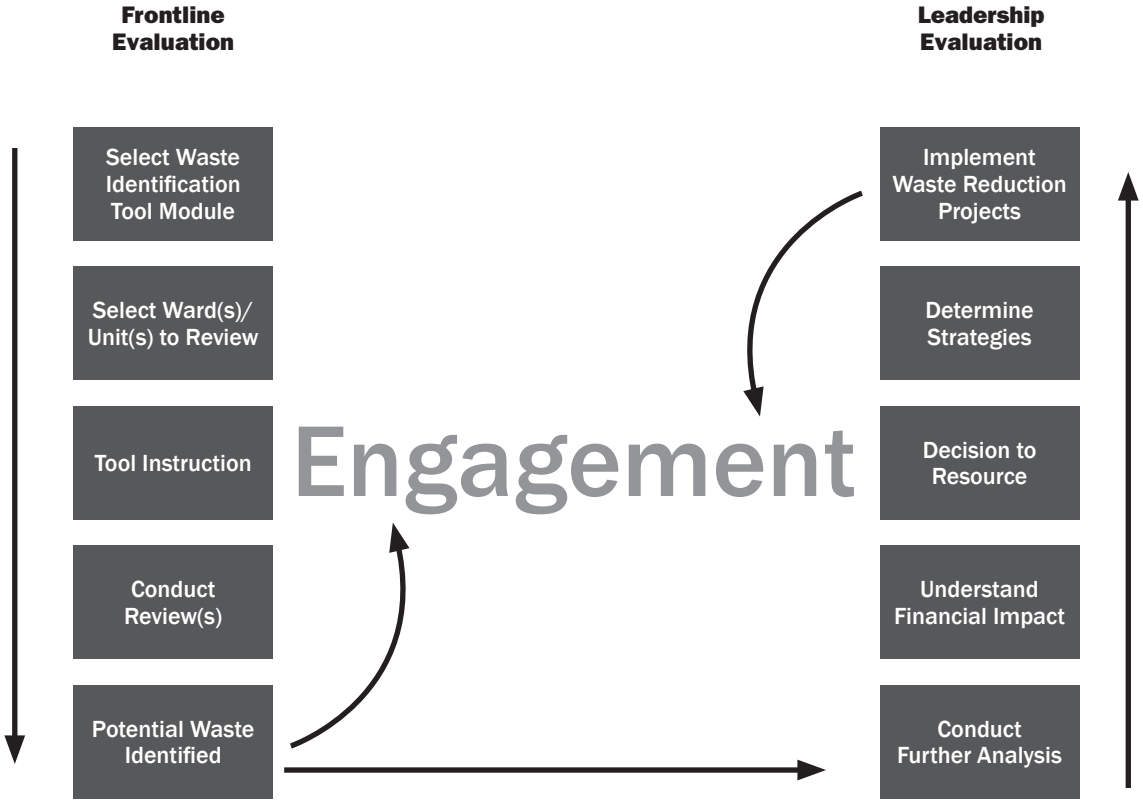
Once frontline reviewers have obtained sufficient qualitative data from their use of the Waste Identification Tool, they will want to take steps to reduce this waste with the goal of improving the quality and efficiency of care delivered and reducing the overall expense to the organization. The decision regarding the amount of qualitative data to obtain before moving to the next steps in this process is a subjective one. Reviewers should consider how much information is needed to have reasonable confidence that the potential waste identified has a likely impact on the organization. Subsequent quantitative analysis will provide greater understanding of the actual impact of the waste identified. In light of this, exhaustive qualitative data is unnecessary.

There is much variation in how hospitals are organized, the services they provide and deliver, and the patients they treat. As a result, the waste types will have different financial and political implications in different hospitals. Hospital leaders will need to understand how each waste type identified with the Waste Identification Tool will affect their hospital in order to prioritize, resource, and implement a portfolio of waste reduction projects.

In the 2009 white paper, *Increasing Efficiency and Enhancing Value in Health Car*e,[3] IHI outlined specific methods and strategies for developing a waste reduction portfolio of projects that will result in organization-wide savings. Building upon this work, IHI has designed and tested a process for analyzing, prioritizing, and executing waste reduction projects based on the Waste Identification Tool findings. This process is illustrated in Figure 1:

- The left side of Figure 1 shows, from top to bottom, the steps that frontline reviewers take to obtain qualitative data about waste.
- Continuing along, the right side of Figure 1 shows, from bottom to top, the steps that leadership then takes to use the findings of the frontline review to analyze, prioritize, and implement waste reduction projects.

Figure 1. Hospital Inpatient Waste Identification Tool: The Process of Analyzing, Prioritizing, and Executing Waste Reduction Projects



Step 1. Analysis

- **Engagement:** Bring together the frontline staff reviewers, one or more members of finance, and hospital leadership to review findings from the Waste Identification Tool and identify two to three types of waste for further investigation. This meeting is called the "conversation"; its purpose is to engage all levels of the organization in a process of understanding the most prevalent or impactful types of waste based on Waste Identification Tool findings.
- **Conduct Further Analysis and Understand Financial Impact:** After identifying two to three priority areas of waste from the initial Waste Identification Tool findings, conduct additional analysis to determine actual prevalence of waste (i.e., through patient case record review) and the financial and political implications of reducing this waste within the specific hospital environment. The financial team should assist with understanding the financial implications and estimating the potential savings. The frontline team should assist with gathering additional quantitative data on the actual prevalence of the waste. In some cases, hospitals have built their confidence in the Waste Identification Tool findings by using it over time.

Step 2. Prioritization

- **Decision to Resource:** After compiling all of the information needed to better understand the impact of reducing waste identified by the Waste Identification Tool, convene the representatives described previously to make a decision about which types of waste to address. This meeting is called the "discussion." In addition to setting waste reduction priorities using the Waste Identification Tool findings, hospital leadership may also have projects of strategic importance to add to the portfolio. The goal of this process is to develop a portfolio of waste reduction projects that will result in significant cost savings for the hospital. Teams should document anticipated cost savings and the project's impact on the organization's bottom line with input from financial leaders.[3] As with any successful endeavor, projects selected for waste reduction efforts should have resources committed for execution of those projects.
- **Determine Strategies:** After identifying a portfolio of waste reduction projects based on using the Waste Identification Tool in several areas of the hospital, and in combination with other strategic decision-making processes, the team, including members of the frontline and leadership, should develop strategies for testing changes to reduce waste in selected areas. The users of the Waste Identification Tool are often the strongest advocates for waste reduction projects. Although the goal is organization-wide savings, reduction efforts should begin on a small scale, such as in a specific area of the hospital or with a segment of patients or providers, as is recommended in any improvement initiative. Specific strategies for capturing the actual savings associated with waste reduction efforts are outlined in IHI's white paper, *Increasing Efficiency and Enhancing Value in Health Care: Ways to Achieve Savings in Operating Costs per Year*.[3]

Step 3. Execution

- **Implement Waste Reduction Projects:** Hospital leadership will need to ensure adequate resourcing for successful execution of waste reduction projects and set organizational goals for clinical outcomes and financial savings. Leadership should put into place a process for obtaining this critical frontline input to develop a portfolio of waste reduction projects that will result in year-on-year cost savings.

The aim of this process is to engage all key players in identifying waste, setting priorities, and executing a portfolio of waste reduction projects that result in savings for the organization. Waste reduction opportunities may be identified through many different channels. Some projects will be identified by hospital leadership, based on the organization's strategic priorities. Others may be included because of a specific funding opportunity or because it is of special interest to an influential staff member or clinician. The value of the Hospital Inpatient Waste Identification Tool is that it is a bottom-up approach, enabling frontline staff and middle management to contribute to this process through findings from their use of the Waste Identification Tool. Engagement of the financial team is also critical, as they will help ensure a portfolio of waste reduction projects that will result in

significant expense reductions realized at the organization's bottom line. Organizations working to execute a waste reduction portfolio should set financial goals to drive their efforts. At this time, IHI recommends that an average-sized hospital of approximately 300 beds should aim for a portfolio that results in $10 million in savings in expenditures each year.

Example

A hospital assembled a team from across multiple medical and surgical units to use the Hospital Inpatient Waste Identification Tool. The team used the Ward Module to understand waste associated with their hospital's bed utilization. After using the Waste Identification Tool, the team was able to easily identify several areas of waste: unnecessary extended work-up for low-risk chest pain, increased hospital length of stay for sickle cell patients due to an inconsistent plan of care, completion of a full panel of blood tests with every ABG in the ICU setting, delays in consultation recommendations for ICU patients, and delays in testing for inpatients (MRI and CT).

The team discussed the potential savings and political implications of conducting projects in each of these areas. The team engaged representatives from finance in this process to help determine savings. Although some projects would not result in significant savings in the current environment, the team decided to include them in a portfolio because of future opportunities for savings. The team involved in determining this set of projects is very excited about bringing their recommendations and data to the hospital leadership team for inclusion in a hospital-wide portfolio of projects. They intend to challenge their senior team to set a financial goal for the organization and to support their routine use of the Waste Identification Tool to contribute to this process.

The Hospital Inpatient Waste Identification Tool has been designed in such a way that it may be adapted by individual organizations to maximize its effectiveness within their clinical environment. Organizations may add additional types of waste within modules or use the overall approach to create a new module that addresses a different geographic or functional area.

Example

A team from one of the test hospitals found the Ward Module to be of great value in identifying, in real time, waste that existed in their ICU. They used the Waste Identification Tool every day over a 30-day period. By doing so, they determined that much of their waste was in clinical delays. This allowed the team to adapt the Ward Module to better meet their needs by further differentiating the types of clinical waste and removing other types of waste that were less prevalent. The hospital staff were thus able to obtain more specific information on areas of most concern and this better informed the process of developing a portfolio of waste reduction projects. In addition, this continuous, real-time approach allowed the nurse manager to discover almost immediately that a new catheter introduced to the unit resulted in significant complications; she was able to discontinue its use within

days. Although the Waste Identification Tool findings have not yet been brought to the financial team for further analysis, the nurse manager was able to address an issue that significantly impacted the quality of care delivered to patients on that unit.

Additional Resources for Setting Priorities

As part of the development of the Waste Identification Tool, IHI designed and tested a matrix to help hospitals prioritize waste reduction initiatives (see Figure 2). The matrix prompts the user to think about each potential project in terms of how much quality will improve and how much cost will be reduced. Although this matrix helps organizations understand the impact of waste reduced within their current financial environment, organizations should explore anticipated changes (such as health care reform) and set priorities based on both the short- and long-term implications for the organization.

Figure 2. Waste Reduction Project Portfolio Prioritization Matrix

Financial Implications in the *Current System*

Quality of Care Implications		**Substantial Cost Savings**	**Moderate Cost Savings**	**Cost Neutral, Expense Increase, or Revenue Loss**
	High			
	Low			

Figure 3 shows an example of a completed matrix. In this example, the team identified five areas of waste in their hospital: hospital-acquired infections, blood culture contamination, handoff confusion, heart failure readmissions, and overuse of lab and x-ray services. For each area of waste, the team made some qualitative estimates about the implications for cost and quality.

In this example, reducing hospital-acquired infections (HAIs) seems to have the highest potential to reduce cost and improve quality. Reducing blood culture contamination and improving handoffs are next highest in potential.

Figure 3. Sample Completed Waste Reduction Project Portfolio Prioritization Matrix

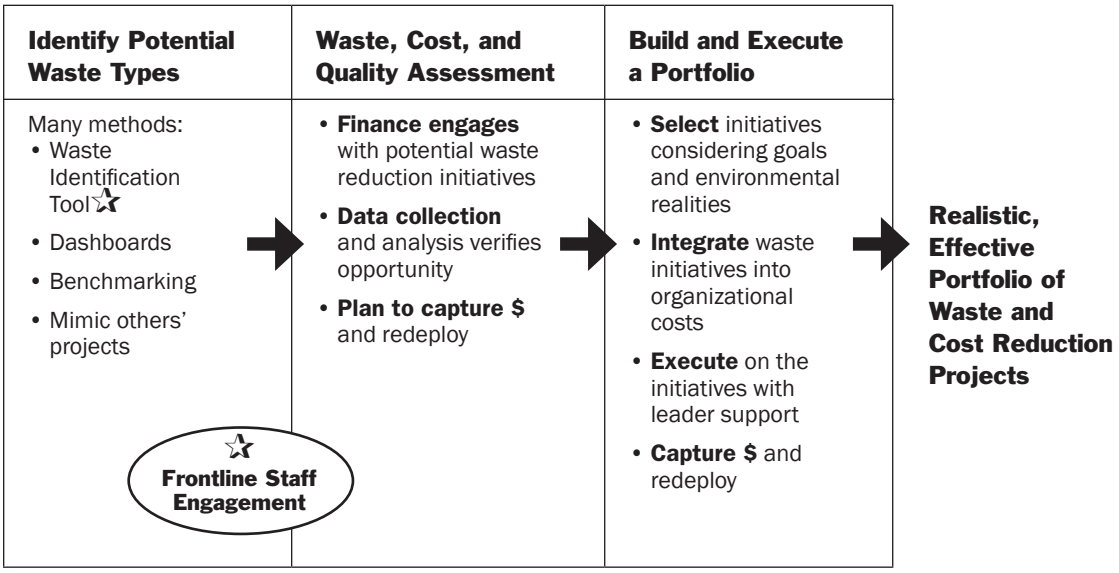
Financial Implications in the *Current System*

Quality of Care Implications	**Substantial Cost Savings**	**Moderate Cost Savings**	**Cost Neutral, Expense Increase, or Revenue Loss**
High	Reduce Hospital-Acquired Infections ($7K-$40K per case)	Reduce Blood Culture Contamination ($/patient day) *Reduce Handoff Confusion ($/case)	*Reduce Heart Failure Readmissions ($/case)
Low			*Decrease Use of Lab and X-ray Services ($/patient day)

*In the changing health care reform environment, this improvement is likely to have more positive implications for operating revenue and expenses.

The hospitals that tested the Waste Identification Tool have found it to be a useful method for identifying waste, setting strategic priorities, and executing a portfolio of projects with the end goal of reducing expense for the hospital (see Figure 4).

Figure 4. Establishing a Realistic Portfolio for Waste and Cost Reduction Projects

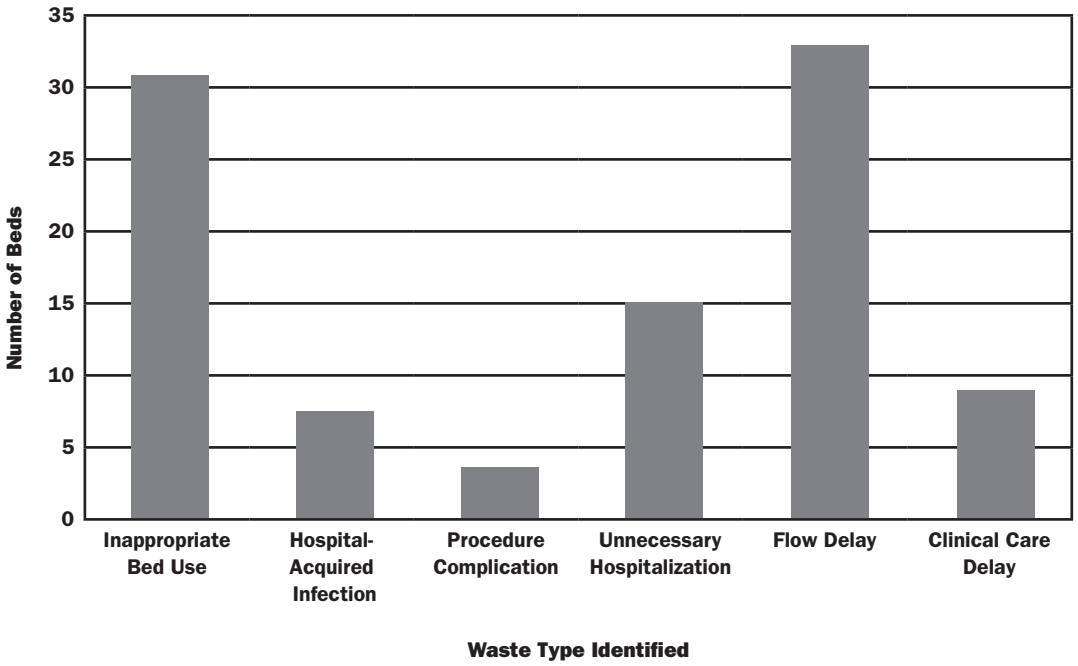


The Medical Director of one of the hospitals testing the Waste Identification Tool commented:

> "Our experience with the Waste Identification Tool has demonstrated its value in engaging frontline staff in planning waste reduction activities. When they identify waste, they frequently have ideas about how to eliminate waste. The Waste Identification Tool has also helped us have more substantive discussions between clinical quality people and finance people. As we develop initiatives to decrease costs, we anticipate that the Waste Identification Tool will allow us to avoid across-the-board cuts in favor of cuts targeted to reduce specific waste types."

In this hospital, bedside nurses used the Ward Module to review over 336 beds to gain a snapshot of the potential waste existing in their hospital; they identified waste in 207 beds, or 55 percent. The most prevalent reasons for this waste were the following: rooms were used as storage, beds were waiting to be cleaned, patients were awaiting discharge, and, in several cases, the patient was readmitted from a previous hospitalization. Figure 5 is a bar chart depicting the waste identified in this hospital's reviews.

Figure 5. Waste Identified in One Hospital Using the Hospital Inpatient Waste Identification Tool Ward Module



The result of these reviews was not new news for the nurses involved. However, what was new was their tremendous enthusiasm for the effort because, for the first time, they had been asked to identify the problems for input into the organization's strategic planning process. The hospital leadership, on the other hand, was very surprised at the magnitude of the waste existing in the hospital. Again, the

types of waste discovered was not the surprise, but rather the magnitude of its impact on the organization. In addition, when the leadership team brought these findings to finance, they realized that this information could significantly impact planning underway for new construction in the hospital. In this case, financial planners determined that a single bed in the not-yet-constructed facility had a value of about $1M. With 55 percent of the beds in the current hospital already considered to include waste, according to the Waste Identification Tool findings, it was clear that the organization could potentially save millions if efforts were made to reduce waste appropriately.

Conclusion

The Hospital Inpatient Waste Identification Tool helps hospital staff and leaders with the systematic identification of clinical and operational waste and subsequent priority setting of waste reduction initiatives that will result in cost savings for the organization. IHI developed and tested the Waste Identification Tool with direct input from hospital frontline clinical staff and leaders. Teams have used the Waste Identification Tool to identify potential and actual waste in five areas comprising 20 waste types. Frontline staff indicate that the Waste Identification Tool is easy to use and to teach to other staff members. Leaders report that use of the Waste Identification Tool ensures engagement of their workforce in waste reduction efforts, melting resistance to change and creating a formal process for waste identification and reduction that can result in real bottom-line savings.

Hospitals can use the Waste Identification Tool as one key strategy in an ongoing process of identifying, assessing the impact of, and reducing waste by engaging both frontline staff and leadership. The design of the Waste Identification Tool lends itself to adaptation by individual organizations to ensure its value within the specific environment of that hospital. IHI looks forward to learning more about the most effective strategies for identifying, prioritizing, and reducing waste through greater use of the tool over time.

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[3] Martin LA, Neumann CW, Mountford J, Bisognano M, Nolan TW. *Increasing Efficiency and Enhancing Value in Health Care: Ways to Achieve Savings in Operating Costs per Year*. IHI Innovation Series white paper. Cambridge, MA: Institute for Healthcare Improvement; 2009. Available at: http://www.ihi.org/IHI/Results/WhitePapers/IncreasingEfficiencyEnhancingValueinHealthCareWhitePaper.htm.

[4] National Priorities Partnership. *National Priorities and Goals: Aligning Our Efforts to Transform America's Healthcare*. Washington, DC: National Quality Forum; 2008:47.

Appendices

Appendix A: Frequently Asked Questions about the Hospital Inpatient Waste Identification Tool

Appendix B: Hospital Inpatient Waste Identification Tool: Worksheets and Instructions for Five Modules

- Ward Module
- Patient Care Module
- Diagnosis Module
- Treatment Module
- Patient Module

Appendix A: Frequently Asked Questions about the Hospital Inpatient Waste Identification Tool

Q: Most recent reports list misuse and overuse as key areas of waste. Why are these types of waste not represented in the Waste Identification Tool?

A: Misuse and overuse are commonly identified by experts during retrospective review of specific resource utilization (such as MRIs) or with specific types of diseases and patients. The Hospital Inpatient Waste Identification Tool was designed specifically not to place frontline staff in the position of having to judge the validity of another clinician's decision; instead, it leaves this determination to the experts performing the enriched review that occurs later.

Q: Can we add waste types to the Waste Identification Tool?

A: Yes. The waste types identified and defined in the Waste Identification Tool are based on commonly observed waste types in most hospitals, but will not be observed equally in all hospitals. We encourage the addition of waste types that reflect the unique nature of your ward or hospital. The best way to add waste types is to clearly define the type of waste you wish to identify and then do a simple objective review as to whether or not it is present.

Q: We had several different people survey the same ward (unit) and they came up with different percentages of waste. Should we be worried about variation in the waste data?

A: No. The first step in using the Waste Identification Tool is to obtain the frontline staff perspective — the person completing the worksheet for the selected tool module. Each reviewer will interpret waste based on his/her experience and knowledge. Since the purpose of the initial evaluation using this Waste Identification Tool is to start the dialogue about whether waste types warrant improvement efforts, this type of variation is expected. Use the tool review findings as an opportunity for learning: meet with the reviewers and discuss the differences and how they reached their conclusions. This may help identify opportunities to clarify the instructions or add criteria that may be helpful during future reviews.

Q: How does the Waste Identification Tool differ from the current way leadership looks at waste in the hospital?

A: Most efforts at waste reduction often focus on budget reductions because volume, staffing, and finances are easy to measure. The Waste Identification Tool instead uses the perspective of frontline staff to identify opportunities to change the way work occurs, rather than just eliminate services. By engaging frontline staff in the identification of waste, the prediction is that there will be greater staff support for changes to reduce waste and ultimately these changes will lead to better care for patients and improved finances for the hospital.

Q: As a hospital leader, it seems unlikely to me that the frontline staff really have insight as to which types of waste will have an economic impact on hospital cost. How can the frontline reviews actually lead to money saved?

A: Generally, the best people to identify waste are those actually doing the work. Given the correct tools and permission to label work or outcomes as "waste," the frontline staff who tested the Waste Identification Tool demonstrated that this process works quite well. However, they are not in a position to quantify the actual cost savings that might be realized from waste reduction efforts; that is the reason that finance personnel and leadership must be involved in these efforts. The frontline reviews alone using this Waste Identification Tool will not lead to money saved. The dialogue between frontline staff, leadership, and finance can lead to changes that will.

Appendix B: Hospital Inpatient Waste Identification Tool: Worksheets and Instructions for Five Modules

The Hospital Inpatient Waste Identification Tool includes five modules; the worksheets and instructions for the five modules follow in this section.

- Ward Module: Worksheet and Instructions
- Patient Care Module: Worksheet and Instructions
- Diagnosis Module: Worksheet and Instructions
- Treatment Module: Worksheet and Instructions
- Patient Module: Worksheet and Instructions

The worksheet for each module is intended to be used by a frontline provider for data collection in real time. The worksheets and instructions for each module are designed to be printed as one two-sided document.

Hospital Inpatient Waste Identification Tool Worksheet: Ward Module

Ward/Unit: _____ Date & Time of Review: _____ Reviewer(s): _____

Patient Bed ID	WASTE*		Waste Types									
	Yes	No	Bed Empty & Staffed	Bed Empty & Not Staffed	Bed Occupied or Used Inappropriately	Healthcare-Associated Infection	Adverse Drug Event	Procedure Complication	Unnecessary Hospitalization	Flow Delay	Clinical Care Delay	Comments
TOTALS												

*If any waste type is checked, note YES for waste.

Total number of beds with any waste identified _____

Percent of total beds reviewed _____

TOTAL BEDS REVIEWED _____

Ward Module Instructions

INSTRUCTIONS
Determine the number of beds for the ward or unit. This should be the total number of all beds, including those in use and not in use. Each bed should be noted on the worksheet in the "Patient Bed ID" column, noting each bed with an identification that will be understood locally (for example, room numbers, ward bed numbers, or other identifications typically used on the ward). Use a second worksheet if you need additional space to review all beds on the ward or unit. Note the number of total beds reviewed in the space for "Total Beds Reviewed."

Direct communication with bedside caregivers is recommended for this module. Use review of case notes or patient records only for information that cannot be obtained or if bedside caregivers are not available.

EXAMPLES OF WASTE or POTENTIAL WASTE to INCLUDE
Bed Occupied or Used Inappropriately: Beds used for other than inpatient care
- Temporary storage
- Temporary offices
- Outpatient use

Healthcare-Associated Infection: Patient admitted or treated for an infection caused by medical care
- Ventilator-associated pneumonia (VAP)
- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- C. difficile
- Bloodstream infection
- Urinary tract infection (UTI)
- Wound infection
- Other

Adverse Drug Event: Drug-caused admission or extension of stay
- Anticoagulant bleeding
- Dialysis secondary to drug toxicity
- Bone marrow depression
- Dehydration
- Arrythmia
- Other

Procedure Complication: Any procedure complication causing admission or extension of stay
- Intra-operative complication
- Pneumothorax
- Hematoma
- Postoperative shock, myocardial infarction, renal failure
- Other

Unnecessary Hospitalization: Any hospitalization where a defect in care caused the readmission or admission
- Diabetes
- Heart failure
- Hypertension
- Chronic obstructive pulmonary disease
- Adult asthma
- Pneumonia
- Urinary tract infection
- Unplanned readmission
- Other

Flow Delay: Delays causing beds to be occupied that should not be
- Patient in a bed with a completed discharge waiting to leave
- Bed being held for any type of patient — medical, surgical, admission, or transfer
- Expired patient in the bed awaiting transfer to morgue (this prevents other admissions)
- Room not cleaned or in the process of being cleaned (this may delay patients who are waiting for bed assignments)

Clinical Care Delay: Delays in the delivery of clinical care that result in the patient remaining in a bed
- Imaging procedures not able to be done or delayed
- Surgery delays due to tests or consults not completed
- Consultation delays resulting in prolonged stay

Hospital Inpatient Waste Identification Tool Worksheet: Patient Care Module

Ward/Unit: _____ Date & Time of Review: _____ Reviewer(s): _____

Patient Bed ID	WASTE*		Waste Types						
	Yes	No	Monitoring	Invasive Tools	Medications	Tests	Therapies		Comments
TOTALS									

*If any waste type is checked, note YES for waste.

Total number of patients with any waste identified _____

Percent of patients with waste identified _____

TOTAL PATIENTS REVIEWED _____

Patient Care Module Instructions

INSTRUCTIONS
Review each patient. Use the "Patient Bed ID" column to note an identification that will be understood locally (e.g., room numbers, ward bed numbers, or other identifications typically used on the ward or unit). Use a second worksheet if you need additional space. Note the number of total patients reviewed in the space at bottom of worksheet. Unoccupied beds are not used in this module.

Direct communication with bedside caregivers is recommended for this module. Use review of case notes or patient records only for information that cannot be obtained or if bedside caregivers are not available.

EXAMPLES OF WASTE or POTENTIAL WASTE to INCLUDE
Monitoring: Any forms of monitoring that are no longer necessary or are being used or completed more frequently than necessary, such as unneeded monitoring or use of monitoring device (this does not include standard vital sign measurements)
- Telemetry
- Pulse oximetry
- Capnography
- Neuro checks
- Capillary glucose checks
- Other

Invasive Tools: Consider whether any invasive device is unneeded
- Central lines
- Peripheral IV lines
- Chest tubes
- Drains
- Arterial lines
- Urinary catheter
- Other

Medications: Consider whether all medications are still needed and at same route and frequency, particularly those that were initiated during hospitalization
- Antibiotics
- Pain medications
- Other

Tests: Consider whether laboratory tests are still helpful
- Orders for daily laboratory tests (e.g., glucose)
- Tests being repeated because results were invalid, or specimen was lost or unusable

Therapies: Any form of therapy that may have been appropriate when initiated but is no longer necessary or not necessary at the same frequency
- Physical
- Speech
- Occupational
- Respiratory

Hospital Inpatient Waste Identification Tool Worksheet: Diagnosis Module

Hospital Admissions Waste Types (Medical Ward or Unit)

Ward/Unit: _____

Date & Time of Review: _____

Reviewer(s): _____

Patient Bed ID	Urinalysis	Thyroid Function	ECG	CXR	Metabolic Panel

Total number of patients with any waste identified _____

Percent of patients with waste identified _____

TOTAL PATIENTS REVIEWED _____

Comments

Preoperative Evaluation Waste Types (Surgical Ward or Unit)

Ward/Unit: _____

Date & Time of Review: _____

Reviewer(s): _____

Patient Bed ID	Urinalysis	Thyroid Function	ECG	CXR	Metabolic Panel

Total number of patients with any waste identified _____

Percent of patients with waste identified _____

TOTAL PATIENTS REVIEWED _____

Comments

Diagnosis Module Instructions

INSTRUCTIONS

Review each patient. Use the "Patient Bed ID" column to note an identification that will be understood locally (e.g., room numbers, ward bed numbers, or other identifications typically used on the ward or unit). Use a second worksheet if more space is needed. Note the number of total patients reviewed in the space at bottom of worksheet. Unoccupied beds are not used in this module.

Case note or patient record review will be necessary for this module.

1. Hospital Medical Admissions: On any medical ward or inpatient unit, review the case notes or patient record for each patient and evaluate only the initial admission orders — those initiated in Accident & Emergency (Emergency Department), admission unit, or within the first 12 hours since decision to admit.

2. Preoperative Evaluation: On a surgical ward or inpatient unit, review the case notes or patient record for surgical patients (pre-op or post-op) and determine if these five tests were completed during preoperative evaluation, either in an outpatient setting or as part of inpatient pre-operative testing.

3. Determine whether any of the five tests were requested. Do not attempt to validate why the tests were ordered.

EXAMPLES OF WASTE or POTENTIAL WASTE to INCLUDE

The following tests should be considered as possible waste when requested on admission (in physician orders at time of admission and within first 12 hours) or prior to surgery. Reviewers only determine whether or not the test was requested.

- Urinalysis
- Thyroid function studies
- Electrocardiogram (ECG)
- Chest x-ray (CXR)
- Metabolic panel (typically includes glucose, electrolytes, proteins, kidney function tests, and liver enzymes)

Hospital Inpatient Waste Identification Tool Worksheet: Treatment Module

Ward/Unit: _____ Date & Time of Review: _____ Reviewer(s): _____

Refer to instructions for information on which patients to include.

Patient Bed ID	Anticoagulation			Glucose Management			Postoperative Care			Pain Control		
	On standard	Not on standard	No standard exists	On standard	Not on standard	No standard exists	On standard	Not on standard	No standard exists	On standard	Not on standard	No standard exists

Total number of patients assessed for standards _____

Total number of patients on standards _____

Total number of patients not on standards _____

Total number of patients where no standard exists _____

Treatment Module Instructions	
INSTRUCTIONS Select a ward or unit and identify the following types of patients for review: 1. Receiving anticoagulants 2. Receiving insulin 3. Postoperative for: a) Elective hip or knee replacement b) Coronary artery bypass graft c) Cardiac valve replacement d) Femoral-popliteal bypass graft 4. Receiving pain control (for any reason — oncology, post-op, chronic pain, etc.) Do not review patients who are not in these categories. Determine if a standard protocol or pathway is being used. Do not attempt to determine if the use or non-use of a protocol is appropriate. To be considered a "standard" there must be one treatment plan designed for most patients, regardless of the physician caring for the patient. If treatment plans vary by clinician, such as each surgeon or group of surgeons with a protocol or order set for their patients, this does not represent a standard. In such cases select "no standard exists."	**DEFINITIONS** *On standard* — Patient is receiving care according to the standard. *Not on standard* — A hospital standard exists, but documentation indicates that it is not being used for the patient's care. *No standard exists* — There is no standard. *Select this answer if there is a standard for this treatment but not for this type of patient. For example, if an anticoagulation standard exists that is used only for medical patients but you are reviewing a surgical patient, select "no standard exists."

Hospital Inpatient Waste Identification Tool Worksheet: Patient Module

Ward/Unit: _____ Date & Time of Review: _____ Reviewer(s): _____

Patient Reference*: _____

**Optional — Note a reference number to patient if notes or record may be reviewed later. Ensure compliance with privacy and confidentiality policies.*

QUESTIONS:

1. Do you feel you could have been discharged home sooner?
   _____NO _____YES If yes, why?

2. Was there anything during your hospital stay (such as treatments, tests, or professional visits) that you received or occurred that was not helpful to your recovery, or hindered your recovery?
   _____NO _____YES If yes, what?

3. Did you wait longer than expected for anything during your stay (such as a test, procedure, consultation, or results)?
   _____NO _____YES If yes, what?

4. Did you have any test or procedure that caused you harm**?
   _____NO _____YES If yes, what?

***"Harm" is defined as unintended physical injury resulting from or contributed to by medical care that requires additional monitoring, treatment, or hospitalization.*

Patient Module Instructions
Identify five adult patients scheduled for discharge to the home setting and who are capable of participating in a brief interview. First explain the purpose of the interview and obtain permission. Be sure to inform patients as to what information will be noted and how it will be used. Only interview patients who are willing to participate. Record some brief notes with the patient's comments and perspectives in the worksheet.

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The New York Times

September 11, 2012

Study of U.S. Health Care System Finds Both Waste and Opportunity to Improve

By **ANNIE LOWREY**

WASHINGTON — The American medical system squanders 30 cents of every dollar spent on health care, according to new calculations by the respected Institute of Medicine. But in all that waste and misuse, policy experts and economists see a significant opportunity — a way to curb runaway health spending, to improve medical outcomes and even to put the economy on sounder footing.

"Everybody from Paul Krugman to Paul Ryan agrees it is essential to restrain costs," said Dr. Mark D. Smith, the president of the California HealthCare Foundation and the chairman of the committee that wrote the report, referring to the liberal economist and Op-Ed columnist for The New York Times, and the conservative Wisconsin congressman who is Mitt Romney's vice-presidential running mate. "The health care industry agrees, too."

The Institute of Medicine report — its research led by 18 best-of-class clinicians, policy experts and business leaders — details how the American medical system wastes an estimated $750 billion a year while failing to deliver reliable, top-notch care. That is roughly equivalent to the annual cost of health coverage for 150 million workers, or the budget of the Defense Department, or the 2008 bank bailout.

The institute's analysis of 2009 data shows $210 billion spent on unnecessary services, like repeated tests, and $130 billion spent on inefficiently delivered services, like a scan performed in a hospital rather than an outpatient center.

It also shows the health care system wasting $75 billion a year on fraud, $55 billion on missed prevention opportunities and a whopping $190 billion on paperwork and unnecessary administrative costs. The Institute of Medicine is an independent adviser to the government and the public, and part of the National Academy of Sciences.

The report depicts a system that saves lives in miraculous fashion, but is also expensive and outmoded and in some cases downright Kafkaesque.

"If banking were like health care, automated teller machine transactions would take not seconds but perhaps days or longer as a result of unavailable or misplaced records," the report said. "If home building were like health care, carpenters, electricians and plumbers each would work with different blueprints, with very little coordination."

Along with the squandered money there is a human toll, the report said, as medical errors and inefficiencies mean that doctors fail to deliver the best and most timely care to patients.

"If the care in every state were of the quality delivered by the highest-performing state, an estimated 75,000 fewer deaths would have occurred across the country in 2005," the report said.

But the report — and independent health care experts and economists analyzing it — identified an opportunity in that $750 billion of wasted health spending. If hospitals, doctors and insurers could wring even a fraction of that money out, it would help to bend the so-called cost curve of runaway health inflation while improving patient outcomes.

The point of the report is that "Americans should expect to get and should demand to get better value for their health care dollar," Dr. Smith said.

"That money is not only not buying anything," said David Cutler, the Harvard health economist. "It is actually a sign of poor care. A lot of cost reductions, if we do them the right way, would mean improved health, not worse health."

Professor Cutler gave as an example rules to make sure that doctors do not perform inductions for otherwise healthy pregnant women before 39 weeks of gestation. It would both save money and improve health outcomes by reducing the rate of Caesarean sections, he said.

The report gives recommendations intended to reduce spending and improve care: ensuring doctors work in teams and share information; making prices and costs transparent to consumers; rewarding doctors for outcomes, not procedures; ensuring all doctors use the best-tested practices, and identifying and correcting errors among them.

The report also detailed instances of health care providers offering such smarter care: hospitals preventing re-hospitalizations, upgrading their records systems and cutting out ineffective therapies, for example.

Some health economists and policy experts believe that political changes and financial pressure have already spurred insurers and health care providers to start squeezing out costs, contributing to the slowdown in health spending growth seen in the past few years.

"We're starting to see some very early results," said Wendy Everett, the president of NEHI, a health care research group based in Cambridge, Mass.

She said she expected to see more and more adoption of best practices in the next few years, spurred by President Obama's Affordable Care Act, other changes to Medicare and Medicaid and a recognition among doctors and insurers that the current trajectory of health care spending is unsustainable.

"This train's coming much faster than we thought," Ms. Everett said. She guessed that within a decade providers being paid for the quality, not quantity, of care would be "the norm."

10.A.

INFANT SECURITY CODE PINK POLICY

SUBJECT: Security Management – Infant Security Code Pink	POLICY # 6 PAGE 1 OF 4
DEPARTMENT: Engineering	EFFECTIVE:
APPROVED BY: Safety Committee	REVISED: 2/23/2012

PURPOSE:

- Safeguard newborn infants and pediatric patients from removal from the facility by unauthorized individuals.
- To ensure that, in the event an infant or pediatric patient is missing, all hospital personnel and outside agencies are notified appropriately, with the goal being to locate and reunite the infant or pediatric patient with his/her family in the most expedient manner possible.

DEFINITIONS:

- Code Pink: Abduction of a newborn or child < 2 years old
- Code Purple: Abduction of a child > 2 years old

POLICY:

Only those staff members with proper valid nametags will care for or transport patients to other departments within the hospital. All parents or responsible party will be educated in the prevention of hospital abductions.

RESPONSIBILITIES:

OB Nursing Supervisor, Security Guard – except between 5 and 6 pm, Security and Safety Officer (Director of Facilities), and the Safety Committee are responsible for developing, implementing, and monitoring the Security management program.

PROCEDURE:

A. All parents or responsible party are encouraged to stay with the pediatric patient and are welcomed along on any transfers.

B. Educate the parents or responsible party in preventing hospital abduction.

   1. Be sure the parents or responsible party understand that they are not to give their baby/child to anyone not wearing a valid hospital nametag.

2. Be sure the parents or responsible party understands that they are not to leave their baby/child unsupervised at any time.

C. Be alert to unusual behavior.

1. All personnel should be alert to unusual behavior they encounter such as the following:
   a. Repeat visiting or hovering around the child's door or repeat visiting to the nursery window "just to see the babies"
   b. Close questioning about hospital procedure and layout of the department
   c. Taking of unit scrubs or other means of hospital identification
   d. Leaving the hospital by foot with baby
   e. Unauthorized personnel or members of the public entering the child's room.
2. Anyone that exhibits the following behavior must be reported to the hospital.
   a. The security person or nursing supervisor must ask for the person's identification and interview the person about the reason for their presence or questions.
   b. If the person becomes agitated, call 5-5-5-5 and announce "Code Grey" to location.

D. In case of abduction, refer to "Code Pink and Purple" procedure below.

Code Pink and Purple Procedure:

1. *Reporting an Abduction:*
   a. If you suspect someone of abducting an infant or child in the facility, immediately call the PBX Operator by dialing **5-5-5-5** and report a **"Code Pink / Purple To (location)."**
   b. If possible give a description of any suspect(s).
   c. Call 911 to report the abduction.
   d. Continue the search for the missing infant or child until they are found or we are notified by the authorities to stop the search.

2. *PBX Operator:*
   a. Announce over the PA system "***Code Pink / Purple, to* (location)*".*** Repeat announcement twice, and continue to repeat until the code has been cleared.
   b. Request emergency help as directed by management.

3. *Securing the Inside of the Hospital and Internal Perimeters:*
   a. Immediately secure the area where the suspected abduction took place. No visitors in or out of the area.

b. Upon hearing **Code Pink or Purple** announcement, all employees not immediately involved in patient care should proceed to the nearest exit and observe for suspicious persons (someone carrying a large bag or wearing bulky attire that could conceal an infant.) Do not attempt to detain suspicious persons, but explain the situation and ask to check bags and bulky attire for infant. Be prepared to give a description of the suspect to the authorities. If the suspect flees, follow the suspect (if it is safe to do so) and observe for make and model of car and license plate.
c. All hospital departments shall determine the exit(s) nearest to them, and plan to cover those exits. On nights, weekends, and holidays, priority should be given to the "tower" building stairwells and exits to the outside.
d. Once the perimeter is secured, every department must assign someone to check all rooms including bathrooms in their area for suspect.
e. Secure the area of the abduction as a crime scene until law enforcement arrives. Do not admit anyone to this area or remove any items that would be useful in an investigation from this area.

4. *Securing the Exterior of Building:*
   a. During regular hours, all Engineering personnel will proceed to the streets and parking lots to check vehicles exiting area. They will ask for permission to inspect interiors and trunks of vehicles as appropriate.
   b. Record license plates and make/model of vehicles leaving area.
   c. During off hours, Nurse Supervisor will assign personnel to this duty.

5. *Working with the Family and the Public:*
   a. As soon as possible, move the family of the abducted infant, but not their belongings, to a private room off the maternity unit. Assign a hospital staff member to accompany them at all times, protecting them from stressful contact with the media or other interference and providing care and support to the needs of the family.
   b. Secure the crime scene until authorities arrive. Ensure that no one but the authorities enter the scene.
   c. Provide the family with emergency crisis intervention through a behavioral health counselor, clergy or social services.
   d. Secure all records/charts of the mother and infant.
   e. Assign and brief the hospital spokesperson and inform and involve local media by requesting their assistance in accurately reporting the facts of the case and soliciting the support of the public.

6. <u>Once Situation is Resolved</u>

a. A critique with the Code Pink and Purple Response members will be held.
b. Recommendations will be included in the follow-up portion of the Notification Form.

REFERENCE:

The Joint Commission (TJC) EC.02.01.01 and EC.02.01.03

ACCOUNTABILITY/RESPONSIBILITY FOR REVIEW:

Security Officer/Director of Facilities, Safety Officer, and Safety Committee

10.B.

HUMIDITY AND TEMPERATURE MONITORING POLICY

SUBJECT: Humidity and Temperature Monitoring in Surgery and Birthplace Surgical Suites	POLICY # 101 PAGE 1 OF 2
DEPARTMENT: Engineering	EFFECTIVE: 6/25/2011
APPROVED BY: Sonoma Valley Hospital Safety Committee	REVISED: 3/8/2012

Purpose:
To provide appropriate methods of monitoring and adjusting Surgical Suite temperature and relative humidity levels.

Background:
A relative humidity that is too high can result in damp or moist supplies with added opportunity for mold growth and compromised sterile packaging. It can also contribute to excess perspiration when combined with high temperatures. A relative humidity that is too low can result in excessive bacteria-carrying dust within the surgical environment. Low humidity also contributes to static electricity charges.

Policy:
Preventive Maintenance of the Operating Room HVAC System: The Engineering Department shall implement appropriate preventive maintenance and monitoring practices to assure the HVAC system is functioning as designed. 2012 NFPA 99 requires operating room relative humidity to be between the ranges of 20% to 60%. Recommended temperature range is 68-73°F but considerations for adjustments to temperature include the comfort of the surgery team, excessive perspiration, and clinical needs of the patient or the procedure.

Procedure:
1. The Surgery and Birthplace Department staff shall be responsible for monitoring temperature and relative humidity levels on a daily basis when the surgical suites are in use.
2. Temperature and relative humidity levels shall be documented during stable times (first thing in the morning, before surgical cases).
3. The Engineering Department shall be notified immediately if the temperature or relative humidity levels are out of the acceptable range.
4. Facilities/Engineering shall respond promptly and appropriate corrective actions will be coordinated and/or completed by engineering personnel.
5. Corrected 'in range' temperature and relative humidity will be documented by Surgery Department or Birthplace staff prior to utilizing the surgical suite.
6. The temperature and humidity logs shall be maintained by the unit and reported to Engineering to be recorded as part of the compliance documentation and as a form of redundancy and best practices.
7. Other routine monitoring of HVAC functioning will be prescribed by the Utilities Management plan and approved by the Environment of Care Committee.

Reference:

1. *NFPA 99 2012 edition*
2. *ASHREA Standard 170*

3. *CBC/Title 24*
4. Centers for Disease Control: *Guidelines for Environmental Infection Control in Health-Care Facilities.* MMWR June 6, 2003 / 52(RR10);1-42.

Accountability/Responsibility for Review:
Sonoma Valley Hospital Safety Committee.

10.C.

ICE MACHINE MAINTENANCE POLICY

SUBJECT: Ice Machine Maintenance	POLICY # 102
	PAGE 1 OF 1
DEPARTMENT: Engineering	EFFECTIVE: 6/25/2011
APPROVED BY: Director of Facilities	REVISED: 11/3/2011 3/29/2012

Purpose:
To provide appropriate ice machine cleaning, disinfection, and maintenance.

Policy:
Ice Machines will be cleaned, disinfected, and maintained according to manufacturer's guidelines. Environmental Services is responsible for daily cleaning of the ice machines with the exception of the cafeteria ice machine which is cleaned daily by Nutritional Services. Facilities/Engineering is responsible for the periodic disinfection, water testing, and ongoing preventative maintenance of all ice machines in the facility.

Procedure:
Refer to the Follett Corporation Operation and Service manual for recommended cleaning and sanitizing instructions.

Accountability/Responsibility for Review:
Director of Facilities