Evidence-Based Medicine Group (the “fruit group”)

March 1, 2010

Maryland Health Quality & Cost Council – Time to Impact for Proposed Recommendations

Goal: Implement Evidence-Based Practices and Quality Improvement Initiatives with known cost-savings results State-Wide.

KEY

- Time
- Resources (FTE)
- Expense
- Impact
- Political

1(a). Hand Hygiene

Intervention: JHH WIPES campaign
Impact:
Increase in Hand Hygiene Compliance by 300% (outcomes for avoided HAIs still under evaluation).
Cost: Literature demonstrates that operating costs = 1% of cost savings due to avoided HAIs
Ease of Implementation:

1(b). Hospital-Acquired Infections (HAIs)

Checklist

CR-BSI | SSI | MRSA

Intervention: Checklist(s), Surveillance, Education, Public Reporting?
Ease of Implementation:

Catheter-Related Blood Stream Infection

Impact:
$35-56K additional cost per case
+10-24 days additional LOS; +15-35% attributable mortality
Approach: NHSN definitions / methodology for ICUs (except NICU)

Surgical Site Infection

Impact:
$34K additional cost per case; +7-20 days additional LOS; +9% attributable mortality
Approach: NHSN definitions / methodology for specific procedures (Colon surgery, Hysterectomy, Laminectomy, Hip/Knee, CABG)

Methicillin-Resistant Staphylococcus Aureus (MRSA)

Impact:
$32K additional cost per case; +additional LOS; + attributable mortality
Approach: Active Surveillance Testing (AST) by nasal culture w/in 48 hrs of admission for all ICUs (except NICU)

Health Care Worker (HCW) Influenza Vaccination

Impact:
Literature shows 50% reduction in all-cause mortality among patients treated by HCWs compliant with Influenza vaccination
Approach: Compliance tracking for acute care facility HCWs

3. Blood Wastage

Intervention: Application of Lean Sigma Methodology to improve usage and storage of blood products
Impact:
Within first two years of project, JHH resulted in a savings of over 4,700 units of blood, which corresponds to a savings of $900,000 for the hospital.
Cost: Purchase of coolers and temperature readers
Ease of Implementation:

TIME TO IMPACT	1-3 MONTHS	3-6 MONTHS	6-9 MONTHS	9-12 MONTHS

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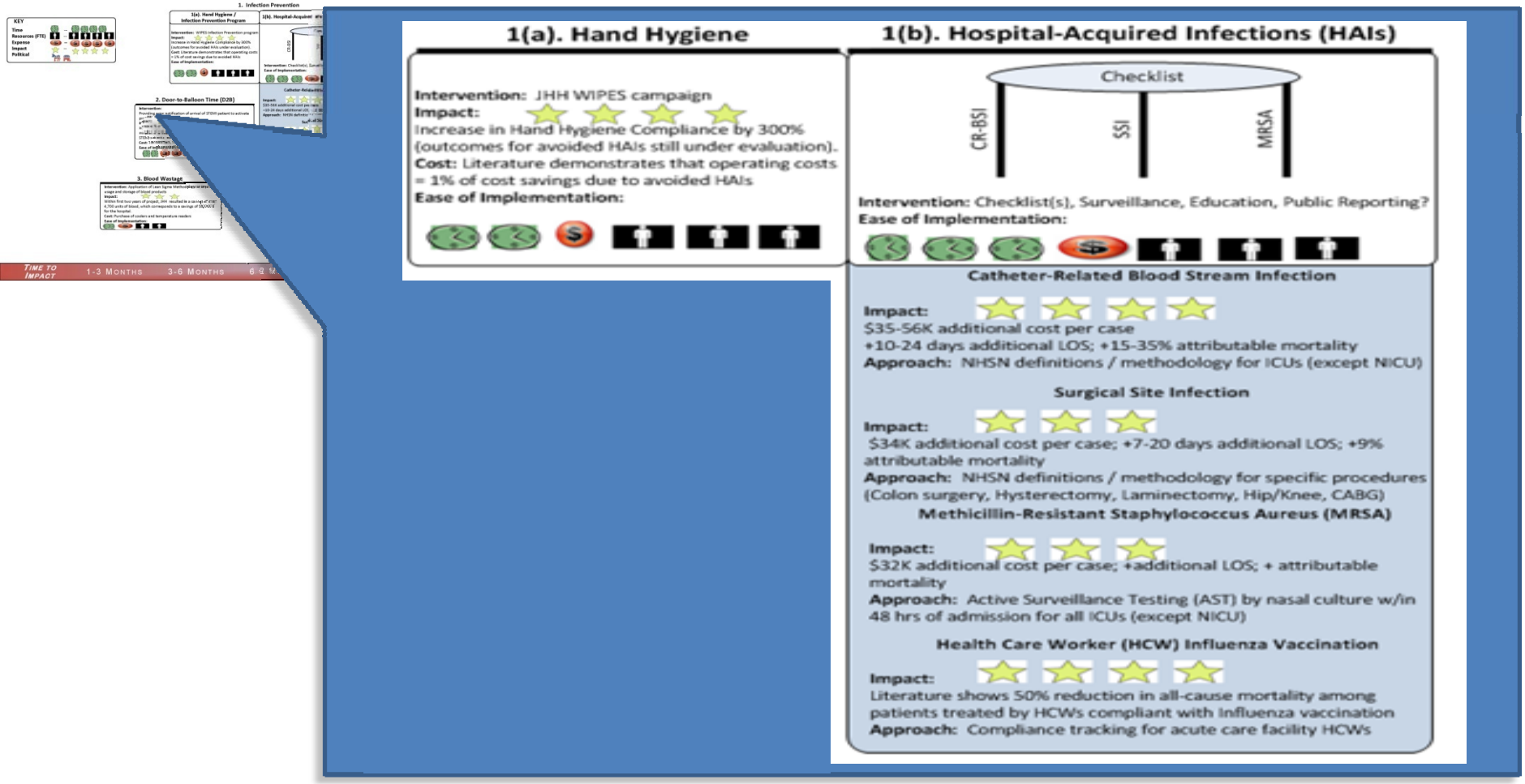
Goal: Implement Evidence-Based Practices and Quality Improvement Initiatives with known cost-savings results State-Wide.



You can count on me to take 5 steps…

to help **WIPE** out hospital infections.

GERMS *Their future is in your hands* ™

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Collaborative Activities

PROCESS

- Kick-off Meeting
- Webinars
- Observer Training
- HandStats Access
- HandStats Customization
- Learning Session One

+

DATA REPORTING

- HandStats Hand Hygiene Compliance
- Process Measures (begins March 5TH)

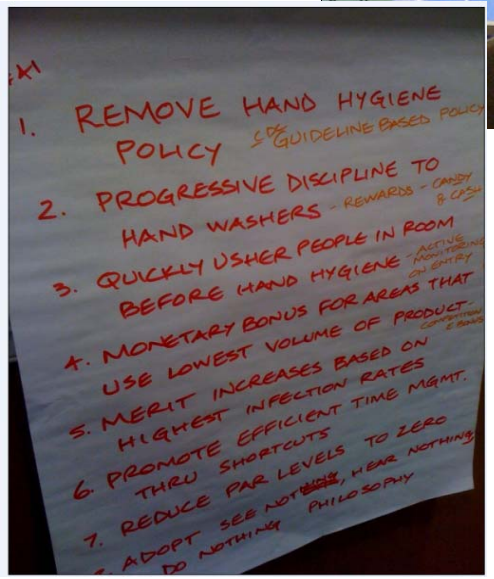
=

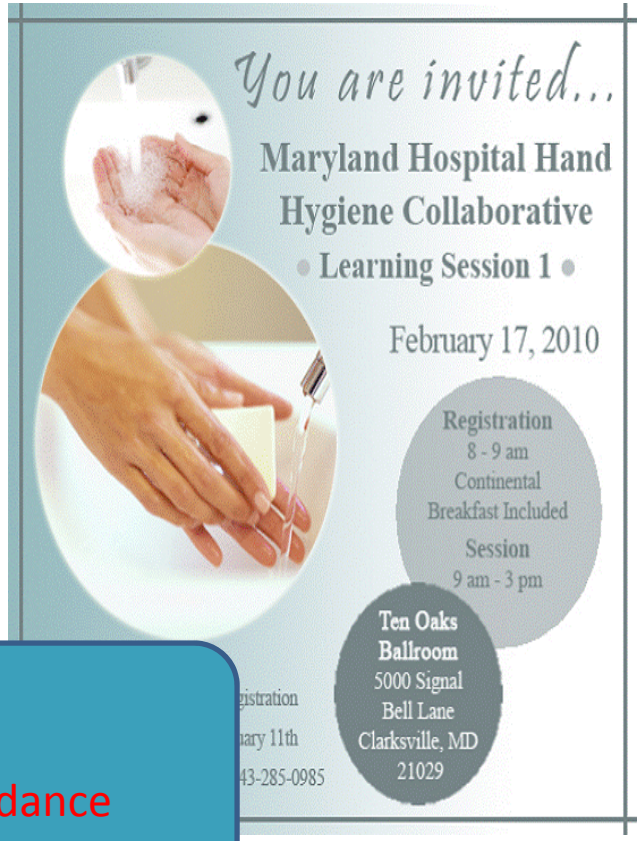
ACUTE CARE HOSPITALS

95% of hospitals are participating in the collaborative

75% of hospitals reported January hand hygiene compliance data

Maryland Hospital Hand Hygiene Collaborative Learning Session 1 – February 17, 2010





Participation:
37 organizations in attendance

Sharing Best Practices

Soap $3

Paper Towels.....$0.01 each

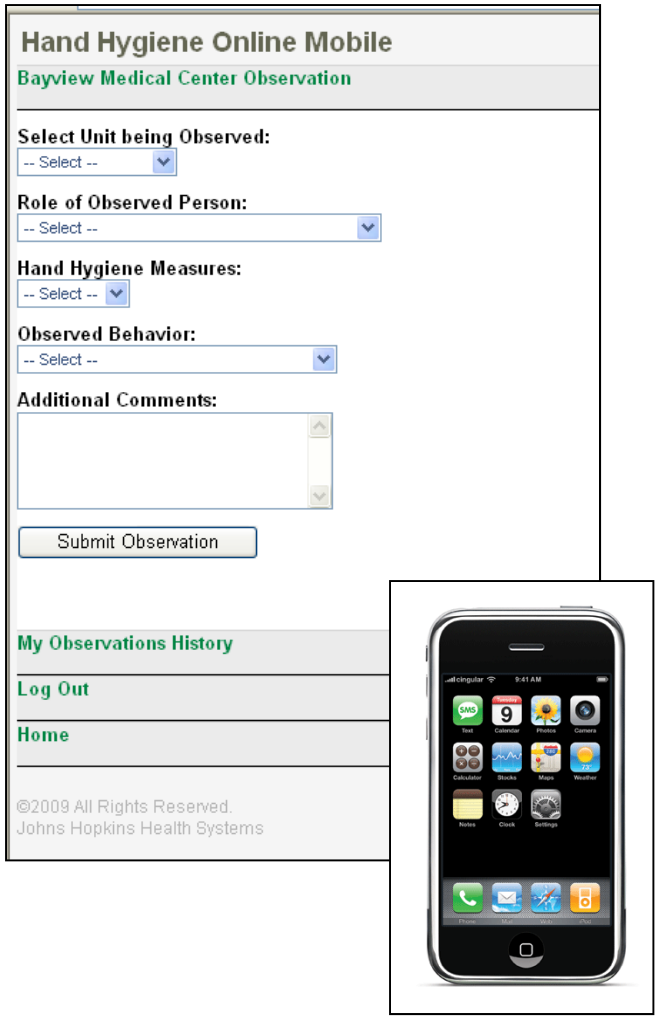
Purell Dispenser..... $10

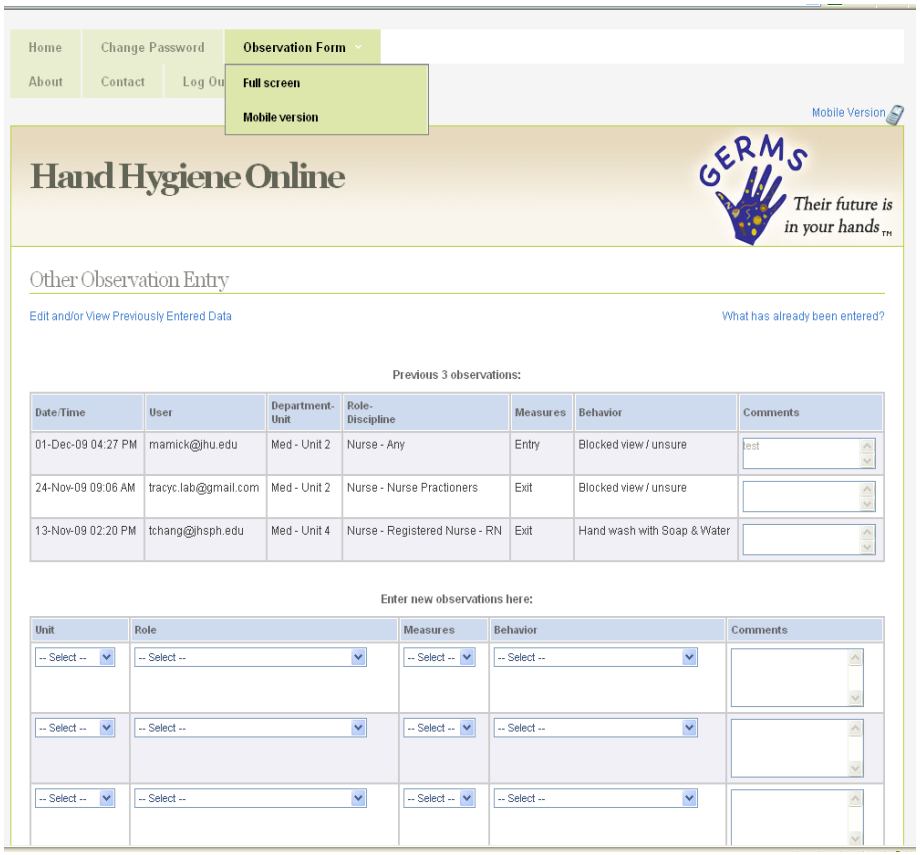
Less than 30 Seconds to Save a Life.....Priceless!

Washington Adventist Hospital

Data Submission

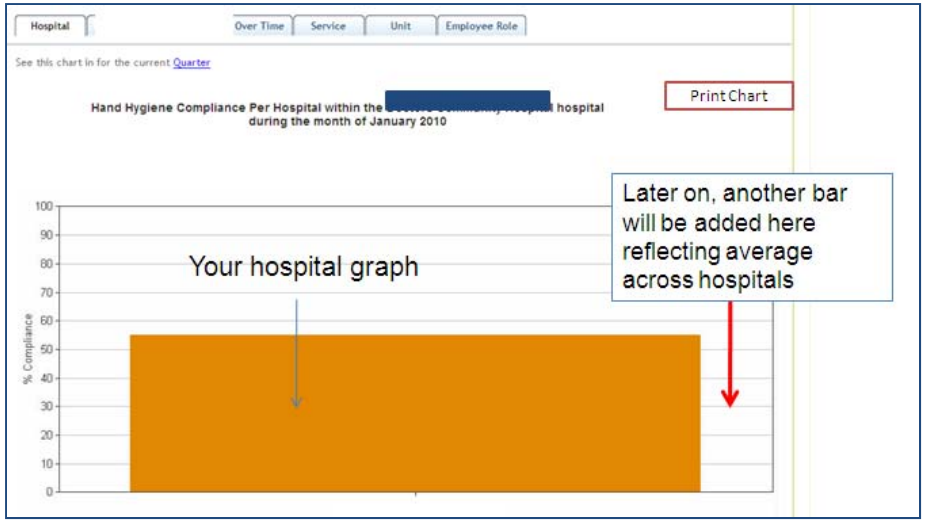
mobile device vs. desktop PC



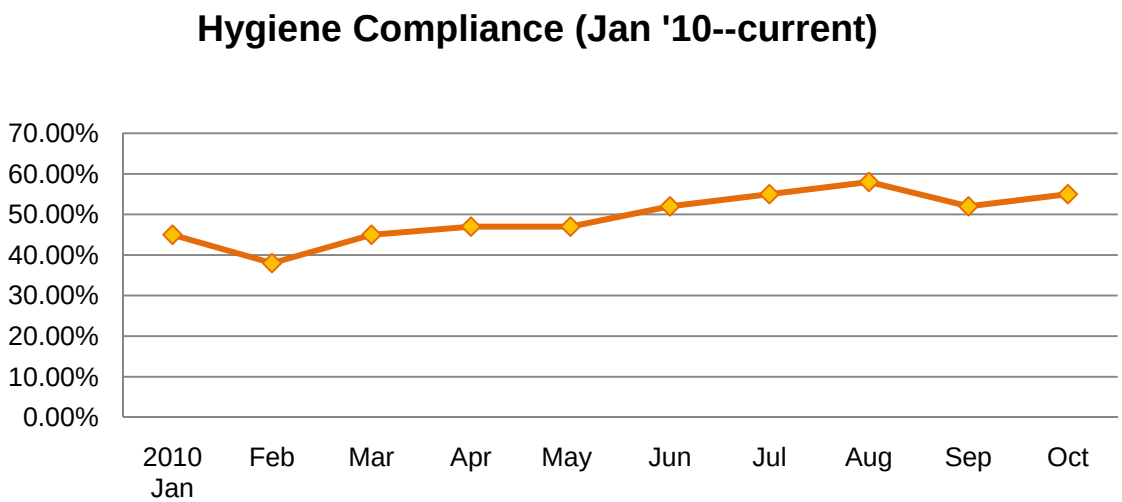


HH Compliance Feedback Reports for Individual Hospitals

Hospital Performance

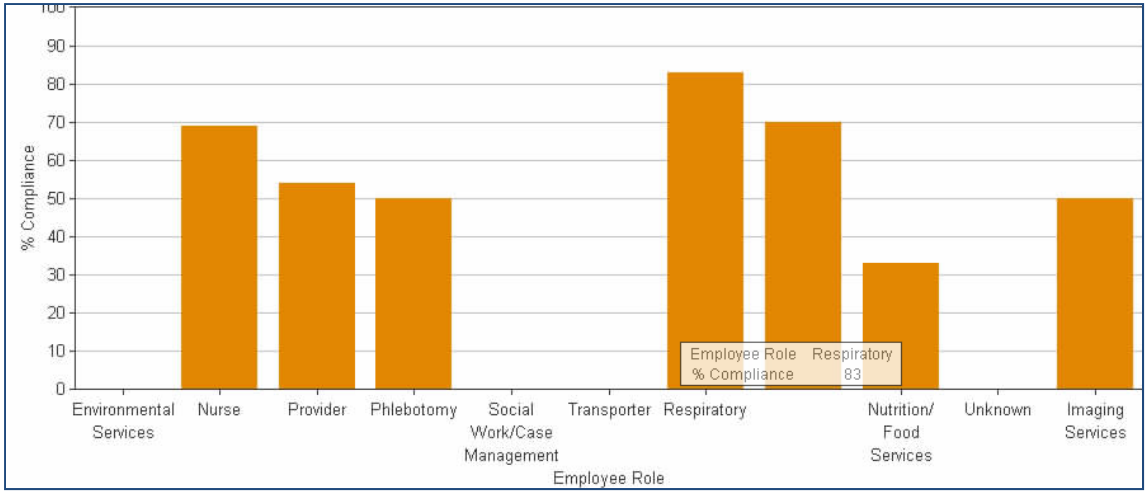


Performance Overtime

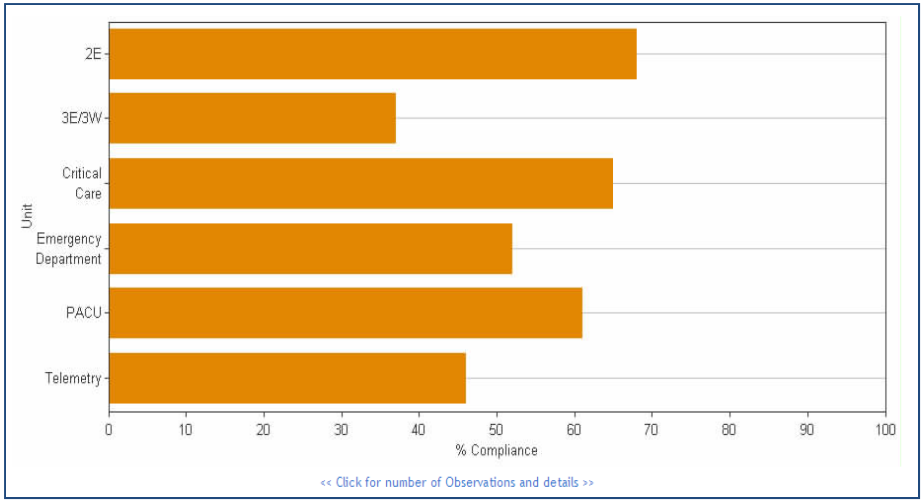


HH Compliance Feedback Reports for Individual Hospitals

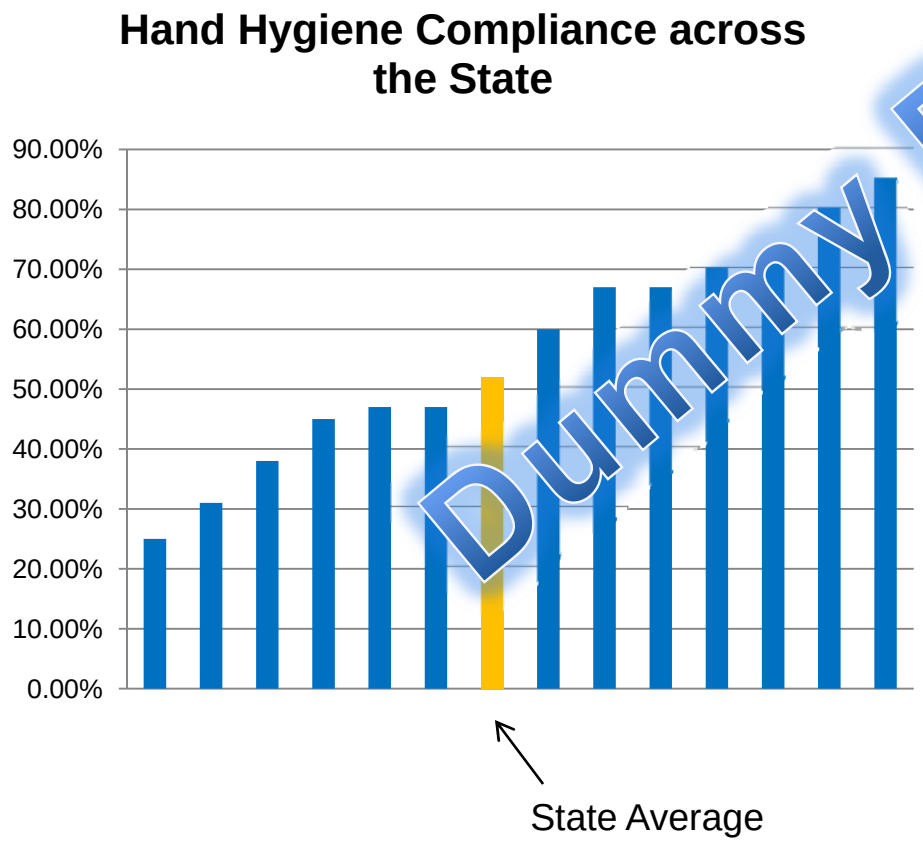
Performance by Employee Role

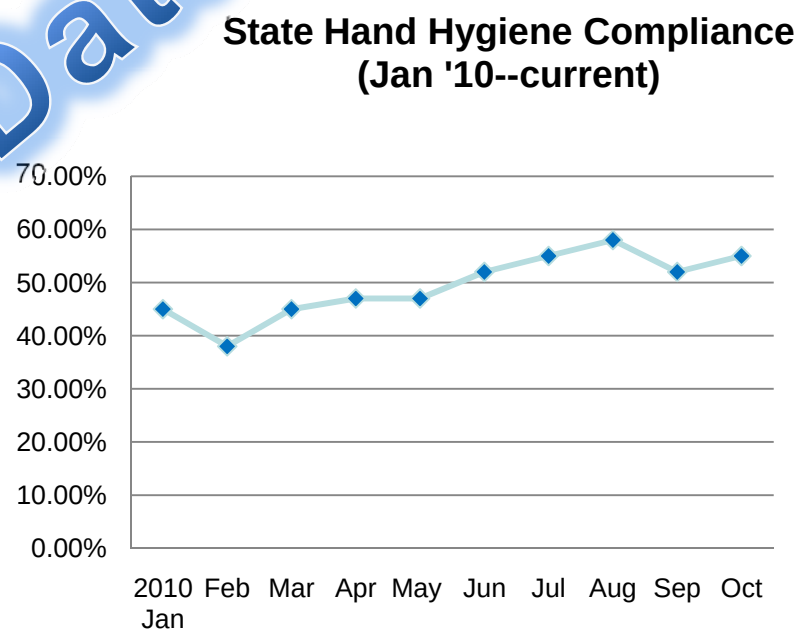


Performance by Unit



HH Compliance Feedback Reports for MHQCC





Dummy Data

Process Measures

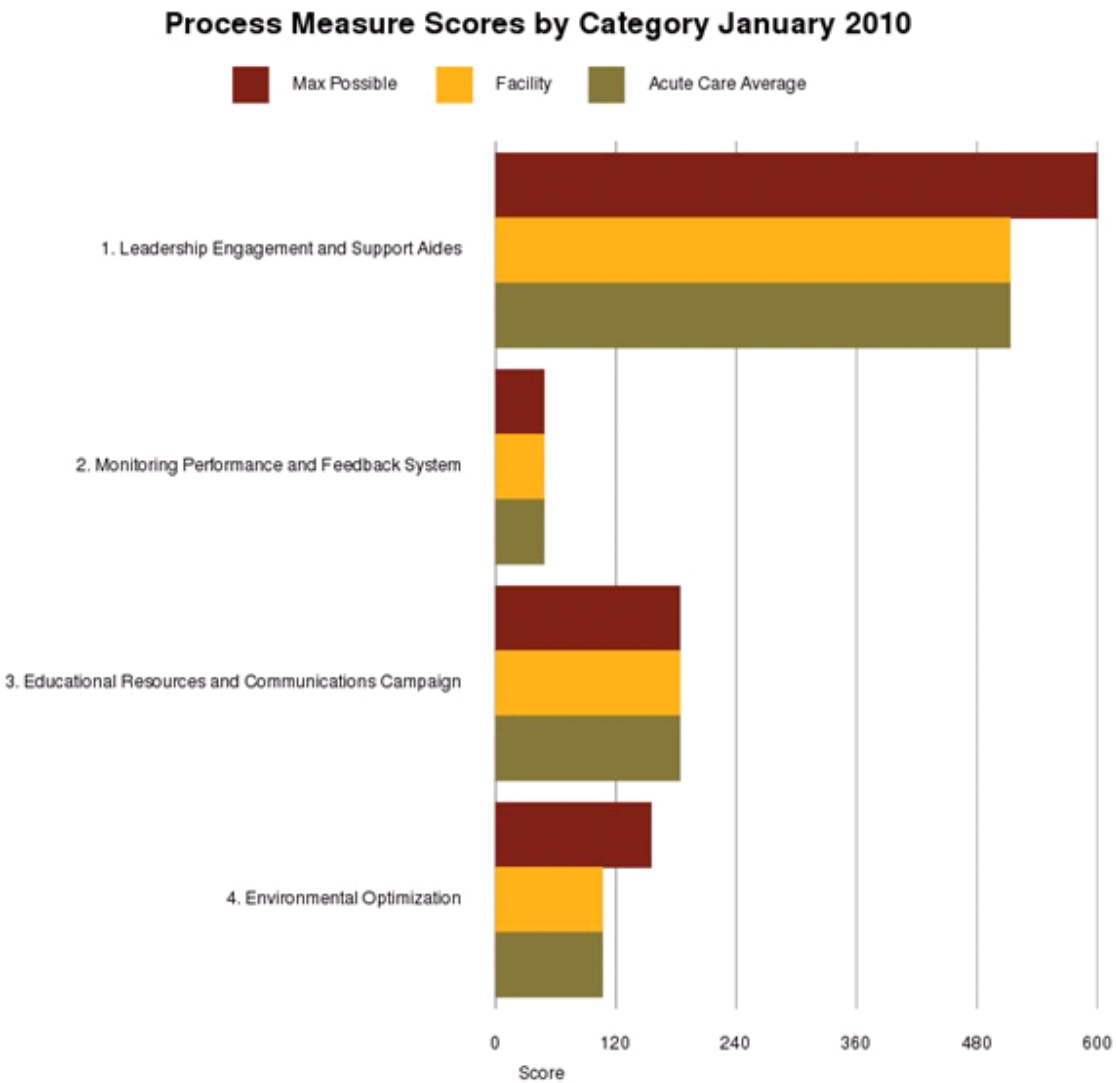
- Leadership Engagement & Support Aids
- Monitoring Performance & Feedback System
- Educational Resources & Communication Campaign
- Environmental Optimization

Maryland Hospital Hand Hygiene Collaborative

PROCESS MEASURES AUDIT QUESTIONNAIRE

	Name (optional): **Unit:**		
	Please respond to the following questions by circling either yes or no.		
1	Does the hospital policy for hand hygiene comply with the WHO guidelines?	YES	NO
2	Does the hospital policy for hand hygiene comply with the CDC guidelines?	YES	NO
3	Does the CEO/Executive Team publically endorse the statewide hand hygiene collaborative?	YES	NO
4	Is there an Executive Sponsor responsible for oversight of the hand hygiene team efforts?	YES	NO
5	Is a multidisciplinary team utilized to implement the hand hygiene program?	YES	NO
6	Is an Infection Preventionist the designated coordinator of the multidisciplinary hand hygiene team?	YES	NO
7	Members of the hand hygiene multidisciplinary team include:	YES	NO

Process Measures Feedback Report for Individual Hospitals

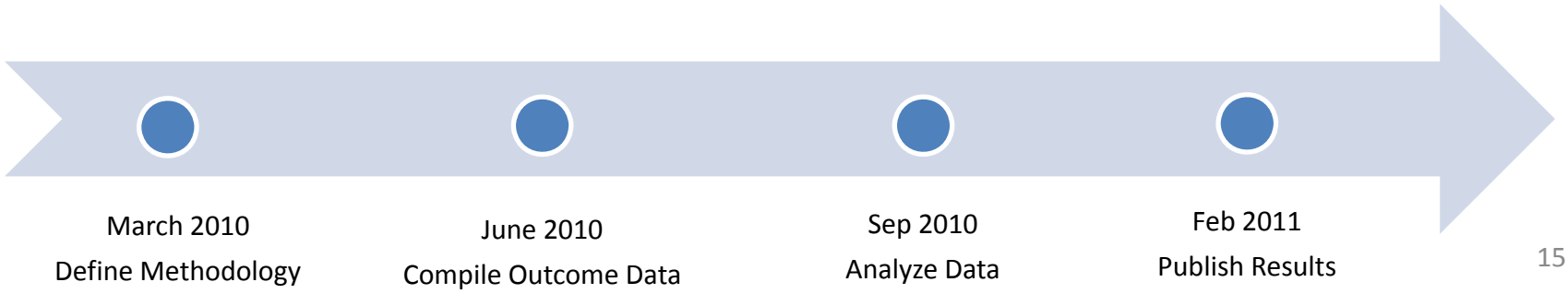


Tentative Schedule

MONTH	HANDSTATS (DUE 10TH)	PROCESS MEASURES	LEARNING SESSION	WEBINAR CONFERENCE CALL
FEBRUARY	X		#1	
MARCH	X	5TH		WEBINAR - 17th
APRIL	X			X
MAY	X			X
JUNE	X	15TH	#2	X
JULY	X			X
AUGUST	X			X
SEPTEMBER	X	15TH		X
OCTOBER	X		#3	X
NOVEMBER	X			X
DECEMBER	X	15TH		X
JANUARY	X			X
FEBRUARY	X		CONGRESS	

Evaluation Study

- Purpose: To advance the science of Hand Hygiene and HAIs
- Led by Council/MHCC/DHMH
  - JHU will conduct in consultation with HAI Advisory Committee's Infection Prevention Subcommittee
- Methodology
  - Hand Hygiene Compliance Rates linked to HAI(s)
    - Initial focus on CL-BSIs in ICUs



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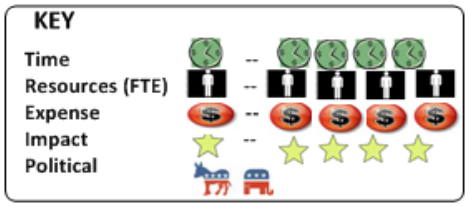

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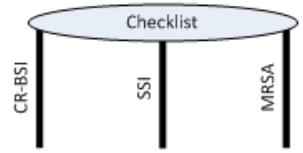

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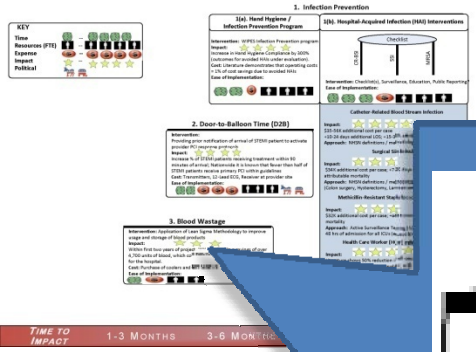

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Ease of Implementation:

Participation

Maryland Health Quality and Cost Council
Reducing Blood Wastage Initiative

Hospital Participation Summary – as of 02/24/2010

	07/22 Meet	09/22 Call	Baseline Data	Pledge Rec'd	Database Training	Website reg	10/09 Data	11/ 09 Data	12/09 Data	02/01 Call
American Red Cross	X	X	NA	NA	X	NA	NA	NA	NA	X
Anne Arundel Med Ctr			X	X	X	X	X	X	X	
Balt/Wash Med Ctr		X	X	X	X	X	X	X	X	X
Blood Bank of Delmarva		X	NA	NA	X	NA	NA	NA	NA	X
Bon Secours			X	X	X	X	X	X	X	X
Braddock Hospital (WMHS)		X	X (Mem)	X	X	X	X	X	X	
Calvert Memorial Hospital		X	X	X	X	X	X	X	X	X
Carroll Hospital			X	X	X	X	X	X	X	X
Chester River Hospital			X	X	X	X	X	X	X	
Civista Med Ctr			X	X	X	X	X	X	X	
Doctors Community Hospital			X	X		X	X	X		
Dorchester General Hospital		X	X	X	X	X	X	X	X	X
Fort Washington Med Ctr			X	X	X	X	X	X	X	X
Franklin Square Hospital		X	X (part)	X		X	X	X	X	
Frederick Memorial Hospital		X	X	X		X	X	X	X	
Garrett County Memorial		X	X	X		X	X	X	X	
Good Samaritan Hospital		X	X	X	X	X	X	X	X	X
Greater Baltimore Med Ctr	X		X	X	X	X	X	X	X	X
Harbor Hospital		X	X	X	X	X	X	X	X	X
Harford Memorial Hospital			X	X		X	X	X	X	
Holy Cross Hospital		X	X	X	X	X	X	X		X

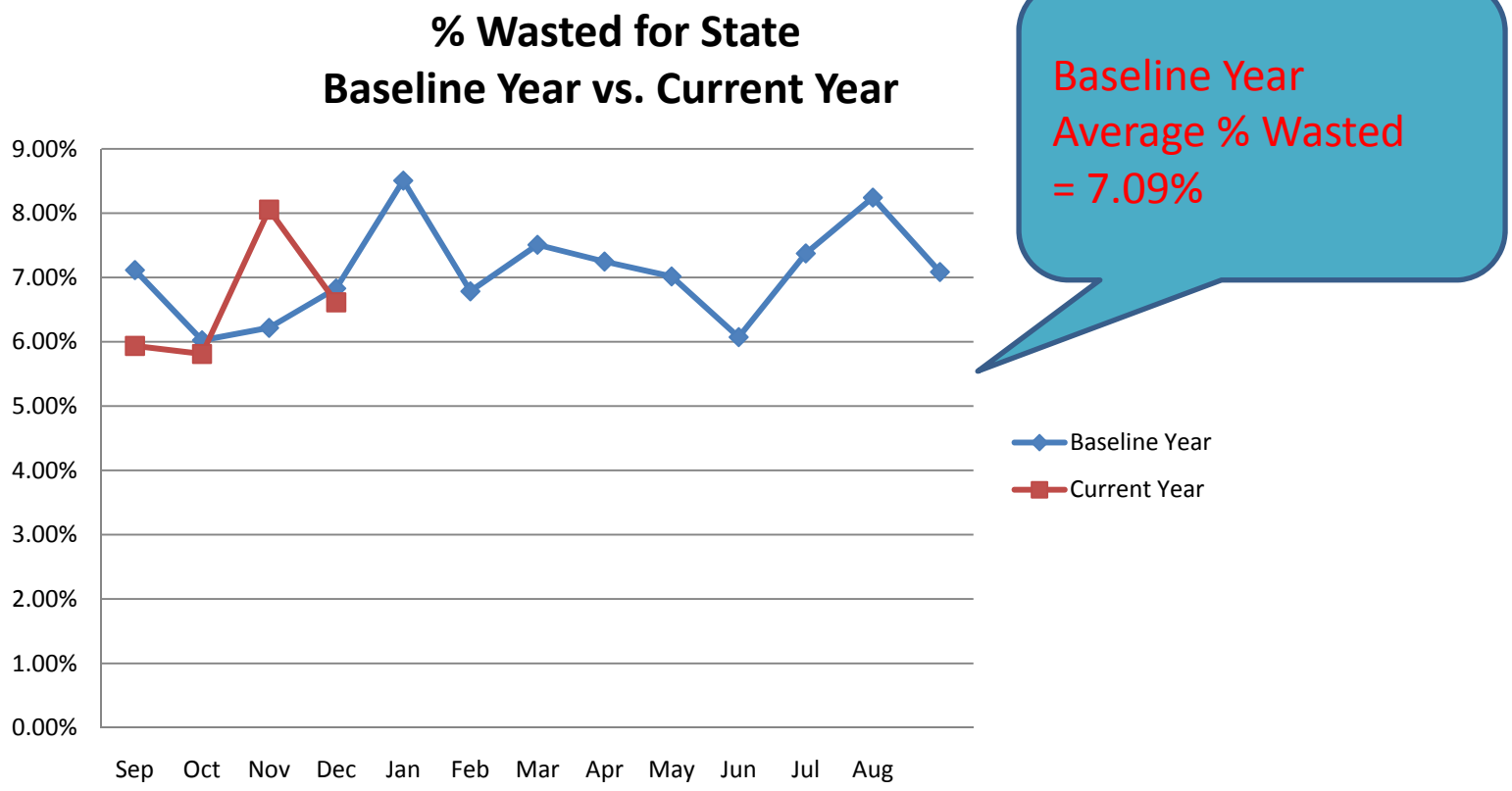
	07/22 Meet	09/22 Call	Baseline Data	Pledge Rec'd	Database Training	Website reg	10/09 Data	11/ 09 Data	12/09 Data	02/01 Call
Howard County General			X	X	X	X	X	X	X	
Johns Hopkins Bayview		X	X	X	X	X	X	X	X	X
Johns Hopkins Hospital	X	X	X	X	X	X	X	X	X	X
Kernan Hospital		X	X	X	X	X	X	X	X	X
Laurel Regional Hospital	X		X			X				X
Maryland General Hospital			X	X		X	X	X	X	X
Memorial Hospital of Easton		X	X	X		X	X	X	X	
Mercy Medical Center			X	X		X	X	X	X	
Montgomery General Hospital			X	X	X	X	X	X	X	X
National Institutes of Health			X		X	X	X	X	X	X
Northwest Hospital	X	X	X	X	X	X	X	X	X	X
Peninsula Regional Med Ctr			X	X		X	X	X	X	
Prince George's Hospital	X		X			X				X
Shady Grove Adventist			X	X	X	X	X	X	X	X
Sinai Hospital of Baltimore	X	X	X	X	X	X	X	X	X	X
Southern Maryland Hospital		X	X	X	X	X	X	X	X	X
St. Agnes Hospital	X	X	X	X	X	X	X	X	X	X
St. Joseph Med Ctr			X	X		X	X	X	X	
St. Mary's Hospital			X	X		X	X	X	X	X
Suburban Hospital	X		X	X	X	X	X	X	X	X
Union Hospital			X	X		X	X	X	X	X
[illegible] Memorial Hospital										
[illegible] MD Med Ctr										X
Uppe[illegible] Ctr										X
VA Medic[illegible]										
Washington [illegible]										X

42 out of 45 hospitals have submitted data
= 93% participation rate

- Participation Pledge
- Baseline Data
- Conference calls/Meeting attendance
- Website registration
- Monthly data submission (Oct, Nov, Dec, and Jan)

State Blood Wastage Results

Platelets

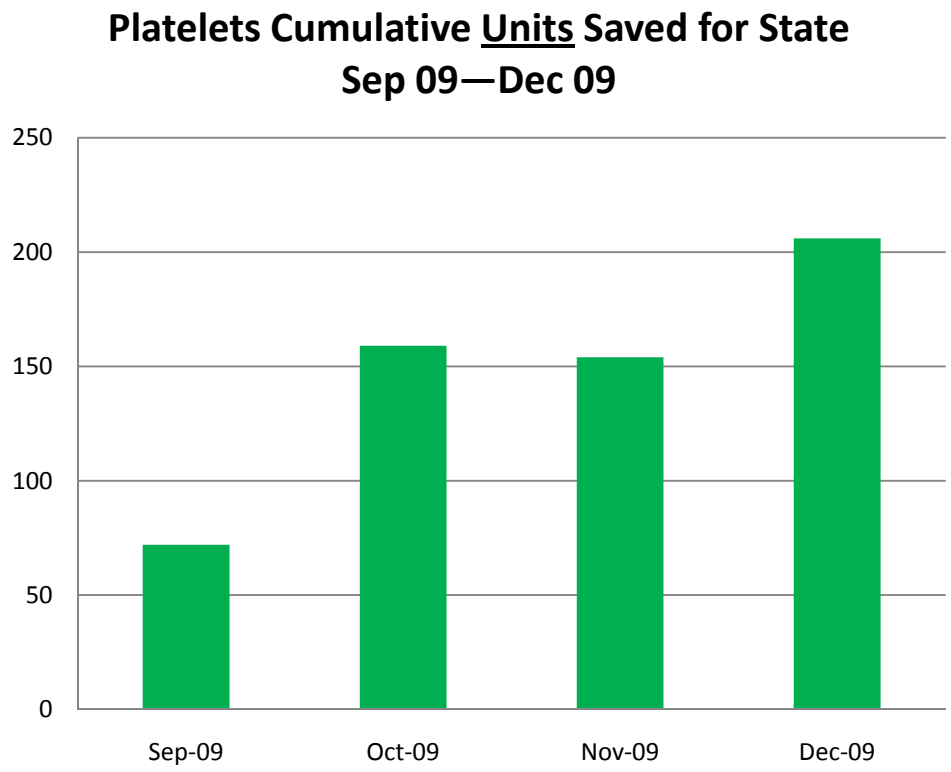


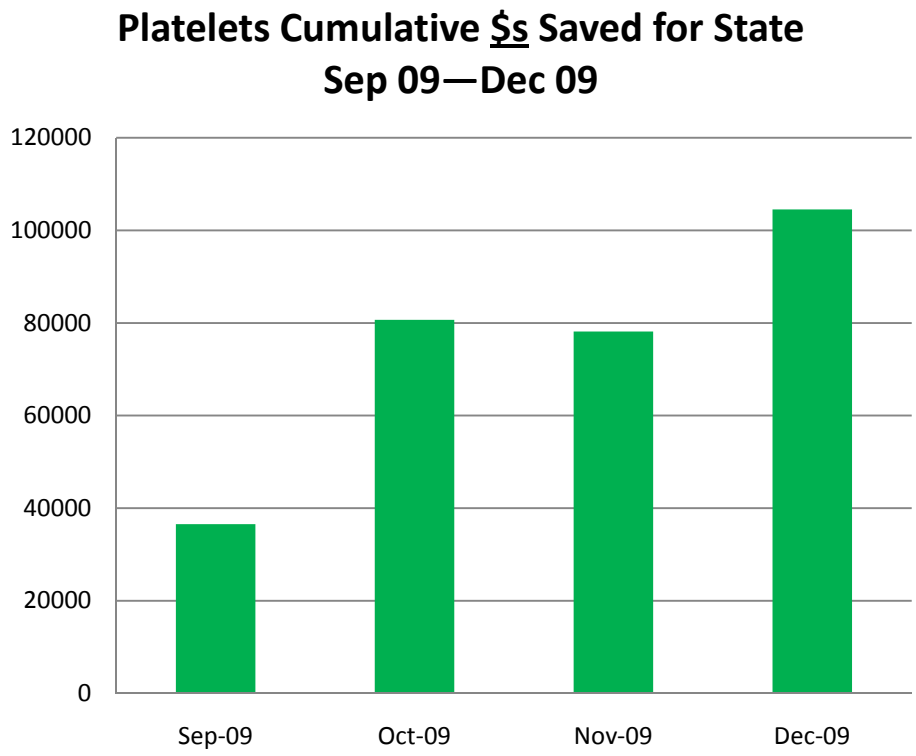
Results for State

Month - Year	9 - 2009	10 - 2009	11 - 2009	12 - 2009
Total Units Wasted	255	264	322	269
Total Units Collected/Purchased	4297	4544	3998	4068
% Wasted	6	6	8	7

State Blood Wastage Results

Platelets



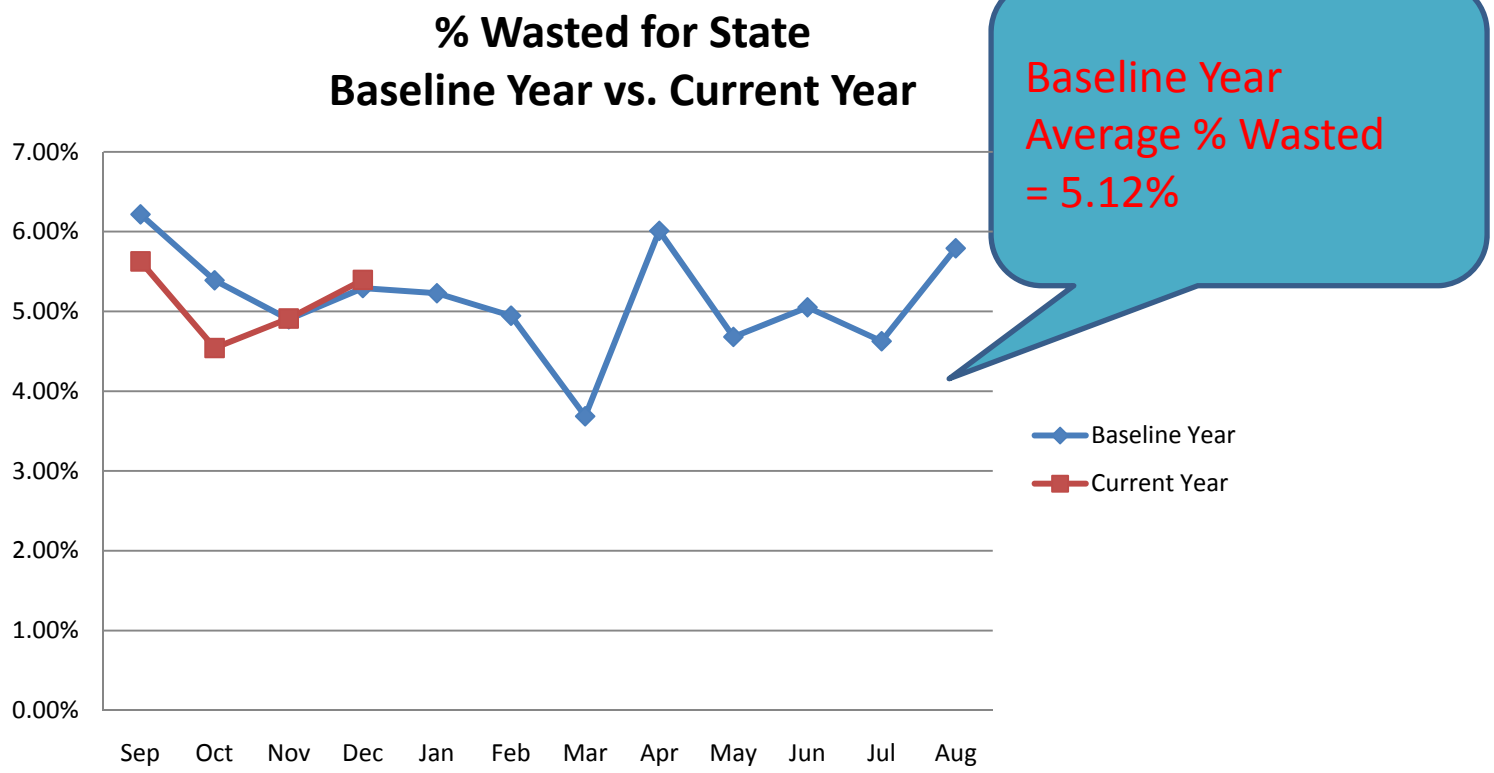


Cumulative Units/Money Saved

Month - Year	Sep-2009	Oct-2009	Nov-2009	Dec-2009
Predicted Units Wasted	327	344	302	302
Cumulative Units Saved	72	159	154	206
Cumulative Money Saved	$36,535.68	$80,682.96	$78,145.76	$104,532.64

State Blood Wastage Results

Plasma



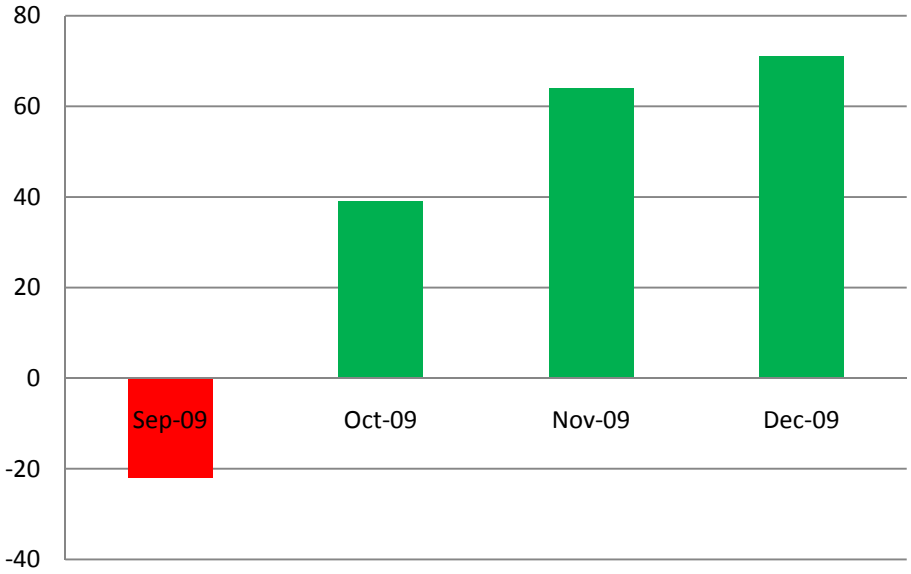
Results for State

Month - Year	9 - 2009	10 - 2009	11 - 2009	12 - 2009
Total Units Wasted	395	323	343	403
Total Units Thawed	7018	7043	6985	7470
% Wasted	6	5	5	5

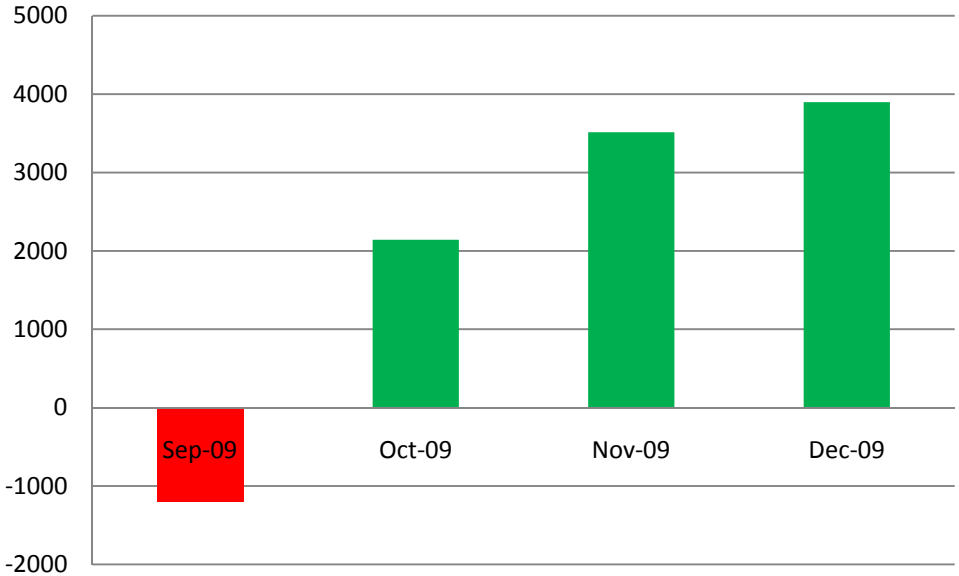
State Blood Wastage Results

Plasma

Plasma Cumulative Units Saved for State
Sep 09—Dec 09



Plasma Cumulative $s Saved for State
Sep 09—Dec 09

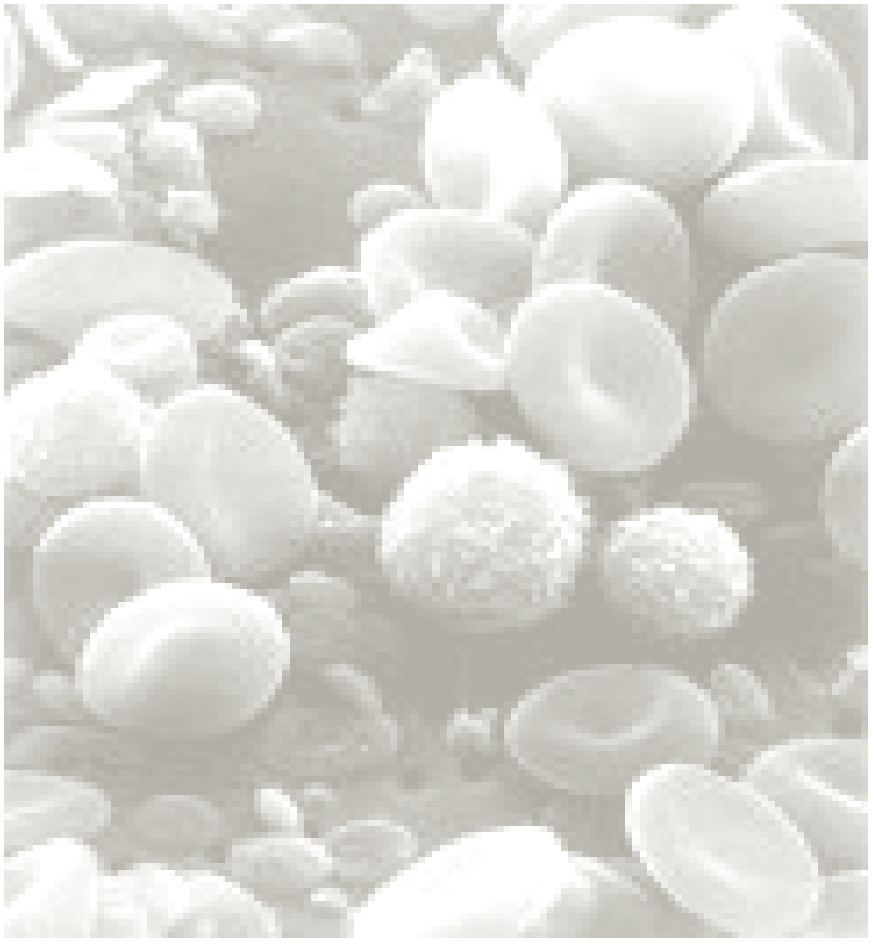


Cumulative Units/Money Saved

Month - Year	Sep-2009	Oct-2009	Nov-2009	Dec-2009
Predicted Units Wasted	373	372	355	376
Cumulative Units Saved	-22	39	64	71
Cumulative Money Saved	($1,208.02)	$2,141.49	$3,514.24	$3,898.61

Total Units Saved for State: 4 Months

- Platelets = 206 units
- Plasma = 71 units
- Allo Red = -76 units
- Auto/Dir Red = -78 units



Total Units Saved

= 277 units

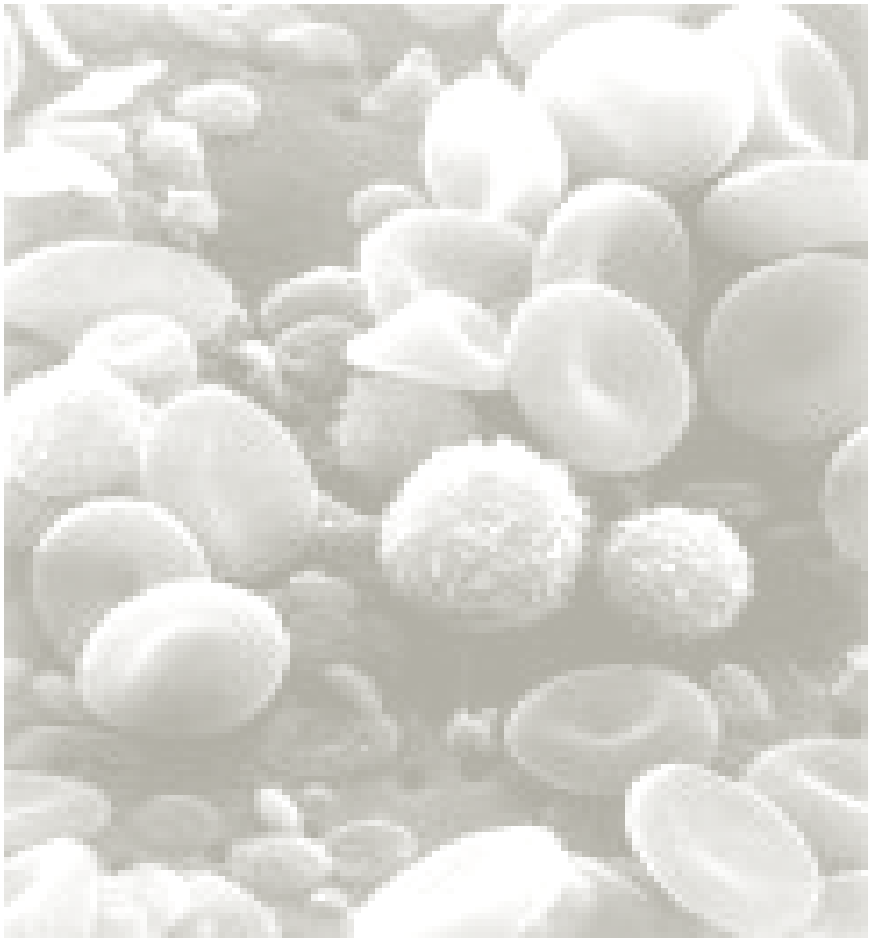
*Note: The Collaborative's focus has been on platelets and plasma based on the project charters. Thus, Allo Red and Auto/Dir Red Cells have been excluded in the calculations.

Total $s Saved for State: 4 Months

- Platelets = $104,533
- Plasma = $3,899
- Allo Red = ($18,229)
- Auto/Dir Red = ($27,600)

Total $s Saved

= $108,432



*Note: The Collaborative's focus has been on platelets and plasma based on the project charters. Thus, Allo Red and Auto/Dir Red Cells have been excluded in the calculations.

Projected Results

- Goal – By July 1, 2010, reduce blood wastage for platelets and plasma by 1%
- Projected Results (Sep 09 – Jun 10)
  - Platelets

    470 Units = $238,317
  - Plasma

    495 Units = $27,164

Maryland Hospital Association

Member Issues and Information

Update

6820 Deerpath Road, Elkridge, Maryland 21075-6234

Maryland Hospitals Reduce Blood Waste

One hundred percent of eligible hospitals are participating in an effort to reduce blood wastage in the state as part of the Maryland Reduction of Blood Wastage Work Group. In four months, the state initiative has saved 198 units of platelets and 44 units of plasma, which results in $103,000 in savings. The Work Group was formed in June 2009 under the guidance of the Maryland Health Quality and Cost Council. The aim of the Blood Wastage Collaborative is to bring together Maryland hospitals and blood centers to improve practices in the provider setting, thereby reducing wastage of blood products and increasing the inventory available for patient care. More information is available at the Collaborative Web site.

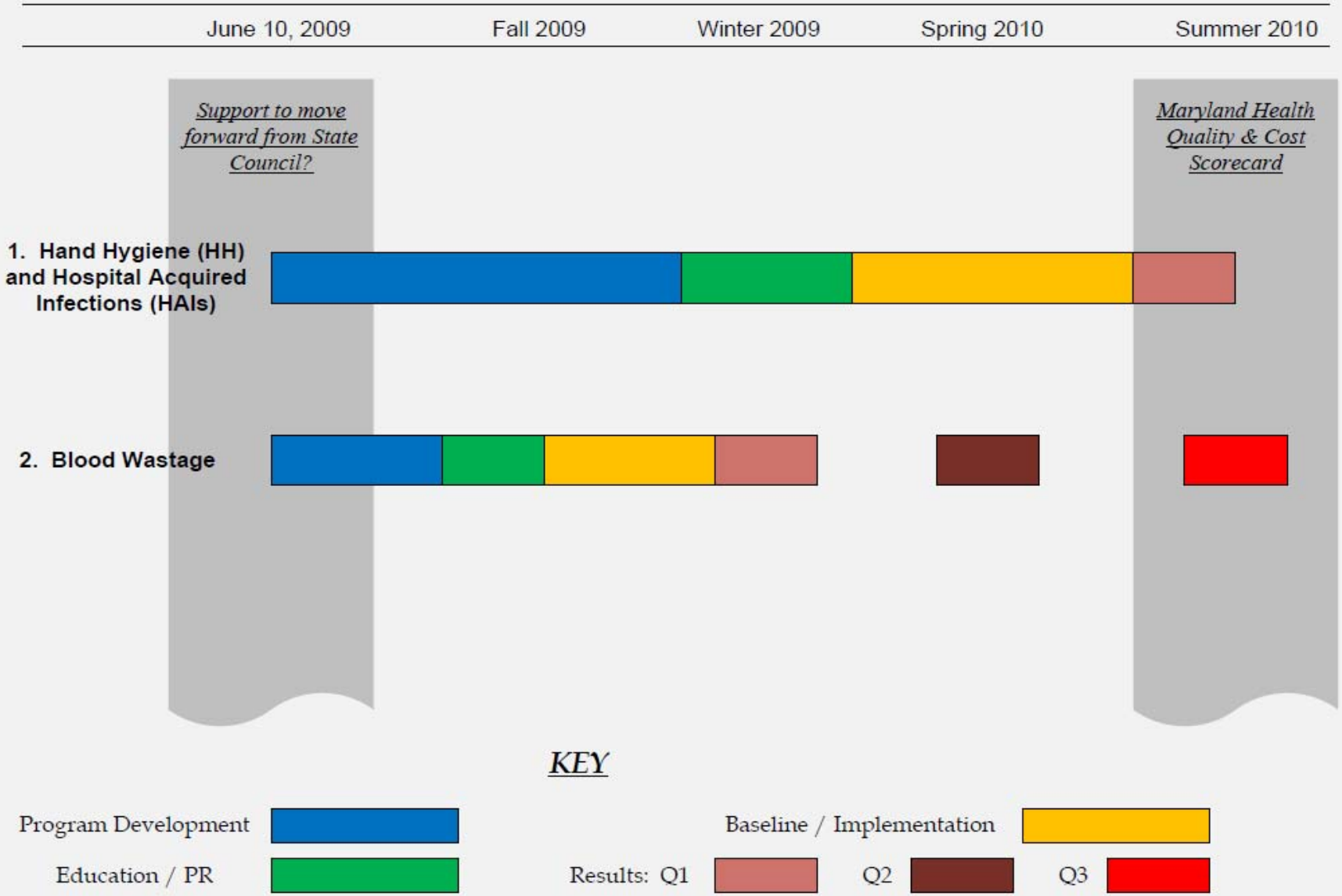
- Contact: Bill Minogue

Next Steps for Blood Wastage Collaborative

- BWWG will
  - conduct a measurement system analysis (MSA) to ensure consistent data collection among collaborative participants
  - develop benchmark capability for reports
  - make quarterly reports on the state aggregate blood wastage data to MHQCC
  - coordinate quarterly follow-up calls with all participants to discuss best practices and data submitted
  - schedule an in-person conference in March 2010
- Website enhancement: "Craig's List" for short dated products
  - allows blood banks to post short dated inventory and to access to see what is available during <u>emergent situation</u>

    ***BWWG recognizes the importance of regulatory/liability issues, and is in the process of investigating these issues.

MARYLAND HEALTH QUALITY & COST ROADMAP



Future “fruit*” seed =
Healthcare Associated Infections (Part 1B)

- Definition of PPR: a readmission that is clinically-related to the initial hospital admission that may have resulted from a deficiency in the process of care and treatment or lack of post discharge follow-up
- Goal: to create a statewide focused HAI prevention initiative to support hospital's efforts around reducing PPRs by recommending evidence-based tools
- Build on Hand Hygiene existing efforts to address HAIs
  - Potential HAIs to focus on:
    - CAUTIs, CLBSIs, SSIs, VAP, MRSA, C-diff
- Partner/Support existing efforts throughout the state (e.g., MHCC, HSCRC, MPSC, MHA, DHMH)

**Short term, quick wins*

Cost of PPRs for Maryland

In Maryland, based on analysis of CY2007 readmission data using the PPR methodology, estimated associated hospital charges*:

- For readmission in 15 days, there were $430.4 million (5.3% of total hospital charges)
- For readmissions in 30 days, there were $656.9 million (8.0% of total hospital charges)

- If only 5% of the estimated associated charges for readmissions within 15 days was saved, Maryland could conservatively save $21.5M dollars.

*This figure does not include physician charges associated with the readmissions.

Questions?