



Healthcare Quality Reporting Program

**STEERING COMMITTEE**

9/24/12, 3-4:30pm

Department of Health, Room 401

*Facilitation: Rosa Baier, MPH and Samara Viner-Brown, MS*

*Recorder: Ann Messier*

**Voting Members**

✓ Ted Almon (rep)	✓ Michael Fine, MD ( <i>Chair</i> )	<input type="checkbox"/> Jim Nyberg
✓ David Ashley, MD	✓ Neal Galinko, MD, MS, FACP	✓ Paula Parker
✓ Rep. David Bennett	<input type="checkbox"/> Diane Gallagher	<input type="checkbox"/> Donna Policastro, NP, RCN
✓ Virginia Burke, Esq.	✓ Debra McDonald, RN	<input type="checkbox"/> Louis Pugliese
✓ Cathy Cranston	✓ Linda McDonald, RN	✓ Gina Rocha, RN, MPH

**Agenda**

3:00pm **Open Meeting**

*Michael Fine, MD, Chair*

- Dr. Fine welcomed the group and reviewed the meeting's objectives.
- Sam introduced two new Steering Committee members:
  - Rep. David Bennett, Rhode Island House of Representatives
  - Paula Parker, Division of Elderly Affairs

Both new members bring diverse healthcare perspectives, with Rep. Bennett's experience as a nurse at Butler and working on state healthcare legislation and Paula and DEA working closely with multiple OHHS agencies and initiatives to improve service delivery to the elderly (e.g., via THE POINT).

There are two remaining vacant seats: the Department of Human Services and the Rhode Island Medical Society. The team is working to fill these vacancies.

- Sam led the group's review of the previous meeting's action items:
  - **Follow-up with Dr. Fine on vacant Steering Committee seats (Rosa/Sam)**

As mentioned above, the Steering Committee has welcomed two new members and there are two remaining vacancies. The team is working to fill these vacancies.
  - **Analyze meaningful use by physician specialty and site (Margaret/Blake)**

Margaret Vigorito, one of the team's program coordinators, and Blake Morphis, the data analyst, completed these analyses and are now working with Lisa to create reports, which Rosa will distribute to the Steering Committee. Because the meaningful use questions were only asked of office-based physicians, this analysis was limited to physician specialty (not site).

Rosa noted that Sam's center was able to benefit from the information asked about meaningful use, since that center houses the immunization registry and was able to use this information to anticipate the number of physicians planning to submit information to the registry.

- **Analyze vendor selection by certification** (Margaret/Blake)

As above, Margaret and Blake completed these analyses and are now working with Lisa to create reports, which Rosa will distribute to the Steering Committee.

- **Determine number of non-skilled agencies** (Margaret/Rosa)

Rosa researched the agencies and there are approximately 46 that provide non-skilled services, including some overlap with the 19 Medicare-certified agencies that provide skilled care. Cathy confirmed that there are approximately 30 agencies that ONLY provide non-skilled care and would be eliminated from satisfaction reporting if we switch to using Home Health CAHPS data.

- **Determine how Medicaid collects satisfaction data** (Rosa)

Rosa is in the process of outreaching to Medicaid for more information; her preliminary outreach did not turn up any quality measurement, only reports related to the nursing home diversion work. Rosa will review materials shared with the Integrated Care Initiative's quality measurement group, which she chaired, and Paula may be able to assist.

- **Share Medicaid's nursing home diversion report with Rosa** (Jim)

Jim shared Medicaid's nursing home diversion report with Rosa, and a copy is included with today's handouts.

Dr. Fine said this is very valuable information and should be shared with the Department's PCP Advisory Council (PCPAC). It is important to know where patients from skilled nursing facilities (SNFs) go when they leave the facility, and how long they remain outside of the SNF. Outcome data could include: ED visits after transitions, hospitalizations, return to SNF and duration of time at home.

- **Share CDI data with the committee** (Rosa/Sam)

Today's agenda includes CDI data and continues the discussion begun in July.

- **Invite Dr. Mermel to the September meeting** (Rosa/Sam)

Dr. Mermel was unable to attend, but Dr. Stefan Gravenstein is in attendance. Stefan is a geriatrician and vaccination expert who regularly attends the HAI Subcommittee meetings and can help represent the committee's views.

- **Share Departmental dashboard** (Sam/Dr. Fine)

Sam described the dashboard, which is quite detailed, and discussed the team's approach to provide a more data-focused approach for today's discussion.

3:10pm

**Policy & Data Discussion Topics (see handout slides)**

*Rosa Baier, MPH, Facilitator*

*Samara Viner-Brown, MS, Facilitator*

– Updated data reports

Since the committee last met, three reports have been [updated online](#):

1. Hospital central line-associated bloodstream infections (CLABSI),
2. Hospital methicillin-resistant *Staphylococcus aureus* MRSA CLABSI, and
3. Hospital healthcare worker (HCW) flu vaccination (currently in a preview period).

The next two reports will be:

1. Nursing home HCW flu vaccination (ASAP), and
2. Nursing home resident and family satisfaction (Dec/Jan).

– Nursing home resident and family satisfaction

Sam and Rosa reviewed the nursing home satisfaction survey process and next steps (see slides), then shared the results of a survey administered to all nursing homes to assess their satisfaction with the vendor and desire to add new questions. As a result of the survey, five questions:

- Residents: (1) how easy the staff make it for you and your family to participate in your care plan, (2) how well the staff truly listen to you, (3) how well the staff helps you when you have pain, and (4) how well have staff helped you to make your end of life decisions?
- Family: How well have nursing staff explained things to you in a way that's easy to understand?

The timeline was delayed about two weeks to add these questions; results will be available in late December or early January.

– Healthcare worker flu vaccination

Rosa described how the current HCW flu vaccination process (active declination) and the proposed changes to the rules and regulations (mandated vaccination) could affect the Department's data collection efforts and our program's reporting.

The group spent several minutes discussing the proposed changes and the risks and benefits of mandating healthcare worker vaccination, and then reviewed hospital HCW vaccination data from the past three years. Dr. Gravenstein explained that there are extremely few people who should not receive the vaccine; the vast majority of people should receive it. He also explained that it is the HCWs who tend to infect patients, not visitors or family members. Vaccinating HCWs protects patients against a range of poor outcomes, including decreased activities of daily living, ED visits and hospitalizations and (in extreme cases) mortality.

**Note:** The preliminary hospital data included in the slides (slide # 17) incorrectly labeled CNA vaccination rates as rates for all healthcare workers, including CNAs and other categories of HCWs. Thank you to Gina for bringing this to our attention. The handout included with the minutes has been updated.

– Hospital *C. Difficile* reporting

Dr. Mermel was unable to attend, but Dr. Stefan Gravenstein is in attendance. Stefan is a geriatrician and vaccination expert who regularly attends the HAI Subcommittee meetings and can help represent the committee's views.

In July, we reviewed the Subcommittee's work to date on *C. Difficile* reporting. Rosa reviewed the previous discussions and provided some updates:

- Data collection method & alignment with CMS

The Subcommittee selected the CDI method because they believe that it provides

more accurate and actionable information than Lab ID. CMS is now requiring hospitals to collect Lab ID and will begin publishing Lab ID in early 2014. Collecting both CDI and Lab ID data is burdensome for facilities, although many infection preventionists will continue to collect both to identify the discrepancies between the methods; they believe Lab ID will overestimate *C. Difficile*.

- Alternate data sources

To minimize the burden for hospitals, we explored using hospital discharge data, which is administrative and does not require any data collection, but that that rate is higher than CDI and led to worse diamond scores for half of the facilities. The Subcommittee determined that this was not a viable option.

- Reporting methods

Hospitals have six quarters of CDI data collected, but no public reports have been issued because the CDC has been advising the group on methods for reporting and recommended additional data to account for variation. The program may be able to issue a report with existing data and could recommend issuing a single CDI report now, and then switching to the Lab ID report in 2014. The Subcommittee does not want to continue to require CDI data collection going forward and would like to provide context for any data reported, ensuring that consumers are aware of hospitals' related infection previous efforts.

Prior to releasing a local report, we need to resolve a methodological problem posed by the fact that hospitals are using different laboratory tests (with sensitivities ranging from ~60-90%). We have collected information to determine which tests hospitals are using and when they switched (if they did). With this information, we can statistically adjust for the different testing methods.

The Subcommittee also wants to provide context for any data reported, ensuring that consumers are aware of hospitals' related infection previous efforts.

The group discussed the process to date and the logistical considerations, and recommended writing an advisory letter to Dr. Fine that recommends:

- Releasing the existing data, but in a "white paper" type report,
- Recommending that the program's methodological experts make appropriate statistical adjustments to account for the various testing methods/changes,
- Including information in the report that provides context for the work to date to reduce CDI, including the HAI Collaborative and hospital processes, and
- Ensuring that the report clearly explains what the diamonds mean and how to interpret differences between facilities.

**Note:** After the meeting, Rosa clarified with the program's data analyst, Blake, that the Standardized Incidence Ratios (SIRs) are calculated based on group averages, not individual facility scores. This means that the resulting diamonds do compare facilities to one another, as Gina indicated was most appropriate, and to the state's historical performance; they do *not* look solely at each facility's longitudinal performance compared to its own baseline performance.

4:15pm **Other Business/Announcements**

*Michael Fine, MD, Chair*

- The meeting adjourned a few minutes after 4:30pm, with no discussion of Open Forum topics.
- **Action items:**
  - Distribute the meaningful use and certified EMR analysis reports (Margaret)
  - Research how Medicaid collects home health satisfaction data (Rosa)
  - Research any home health or nursing home quality measurement data shared with the Integrated Care Initiative's quality measurement group (Rosa)
  - Share the Medicaid nursing home data with PCPAC (Dr. Fine/Rosa)
  - Write an advisory letter summarizing the CDI recommendations (Sam/Rosa)
- **Next meeting:** 11/26/12





# Steering Committee: HCQP Program Updates

Samara Viner-Brown, MS, HEALTH

Rosa Baier, MPH, Healthcentric Advisors

September 24, 2012



# Agenda

- Welcome & introductions
- Action items
- Updated data reports
- Nursing home resident and family satisfaction
- Healthcare worker flu vaccination
- Hospital *C. Difficile* reporting
- Open forum



# Welcome & Introductions

- Roll call
- New members
  - Rep. David Bennett, House of Representatives
  - Paula Parker, Division of Elderly Affairs
- Vacant seats
  - Department of Human Services
  - Rhode Island Medical Society

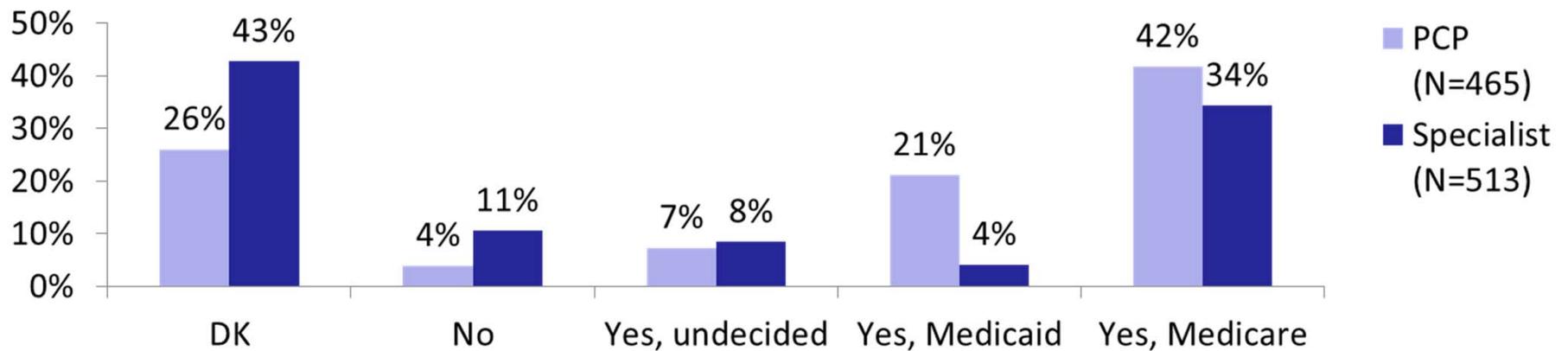


## Action Items

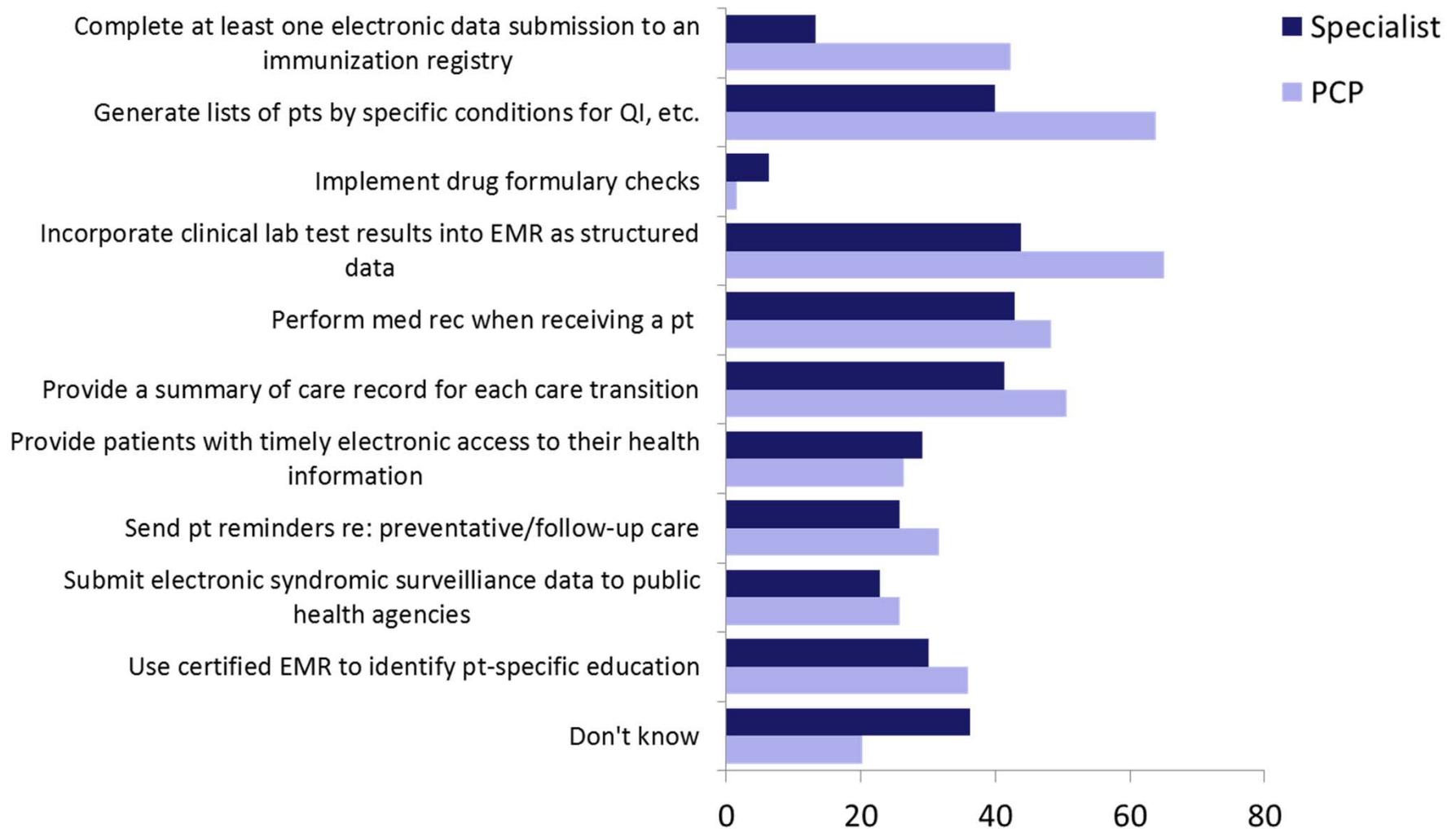
- Follow-up with Dr. Fine on vacant Steering Committee seats (Rosa/Sam)
- Analyze MU by physician specialty and site (Margaret/Blake)
- Analyze EMR vendor selection by certification (Margaret/Blake)
- Determine number of non-skilled agencies (Margaret/Rosa)
- Determine how Medicaid collects satisfaction data (Rosa)
- Share Medicaid's nursing home diversion report with Rosa (Jim)
- Share CDI data with the committee (Rosa/Sam)
- Invite Dr. Mermel to the September meeting (Rosa/Sam)
- Share Departmental dashboard (Sam/Dr. Fine)



# Action Item: Meaningful Use, by Physician Specialty (2012)



# Action Item: Meaningful Use, by Physician Specialty (2012)



# Action Item: EMR Vendor Selection, by Certification (2012)



## Certified (N=1,204)

1. eClinical Works (30.3%)
2. Cerner – PowerChart (12.2%)
3. GE Centricity (5.6%)
4. Ingenix – Caretracker (5.5%)

## Not certified (N=496)

1. Don't know (75.4%)
2. No vendor identified (12.3%)



# Data Reports

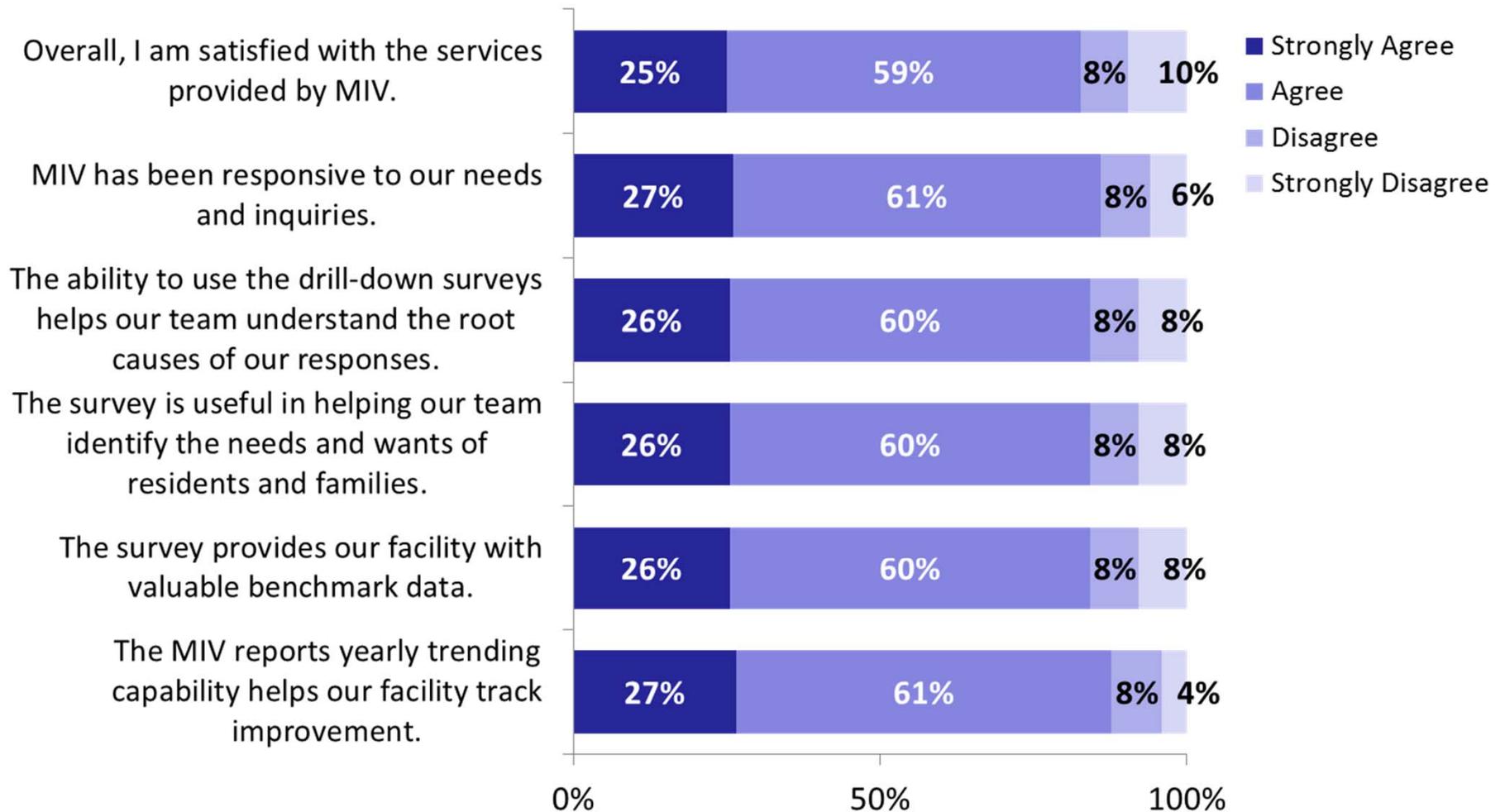
- Updated
  - Hospital CLABSI
  - Hospital MRSA CLABSI
  - Hospital healthcare worker (HCW) flu vaccination
- Upcoming
  - Nursing home HCW flu vaccination (ASAP)
  - Nursing home resident and family satisfaction (Dec/Jan)

# Nursing Home Resident and Family Satisfaction Survey, 2012



- Contracts with vendor, My InnerView (MIV)
- Mailing lists
  - Cognitively-intact long-stay residents
  - All family members
- Survey timeline
  - Start date pushed to 10/17
  - Delay to add questions

# Nursing Home Feedback on MIV (N=59)





# New MIV Questions, 2012

## Resident

1. How easy the staff make it for you and your family to participate in your care plan.
2. How well the staff truly listen to you.
3. How well the staff helps you when you have pain.
4. How well have staff helped you to make your end of life decisions?

## Family

5. How well have nursing staff explained things to you in a way that's easy to understand?

# Nursing Home Resident Satisfaction, 2011 (Last Year)

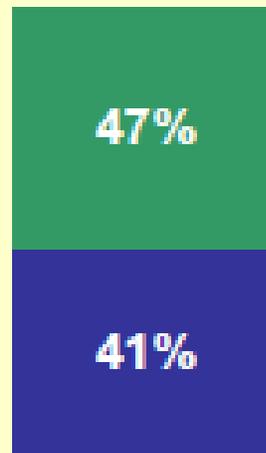
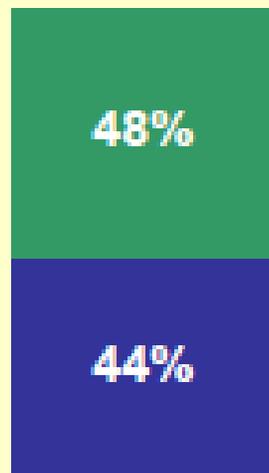


## PERCENT "EXCELLENT" AND "GOOD" FOR GLOBAL SATISFACTION ITEMS

Overall satisfaction

92%

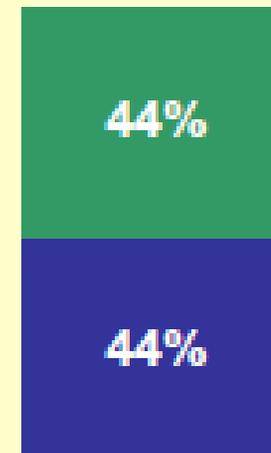
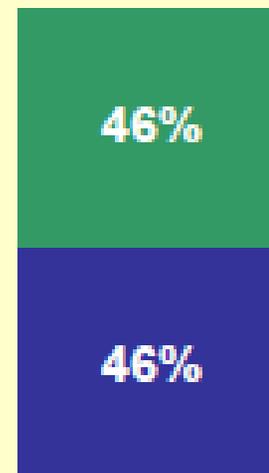
89%



Recommendation to others

92%

88%



RI

MIV

RI

MIV

# Nursing Home Resident Satisfaction, 2011 (Last Year)



## Primary Strengths:

- Resident-to-resident friendships
- Respectfulness of staff
- Commitment to family updates
- Cleanliness of premises

## Primary Opportunities:

- Responsiveness of management
- Quality of dining experience
- Choices/preferences
- Adequate staff to meet needs

# Nursing Home Family Satisfaction, 2011 (Last Year)

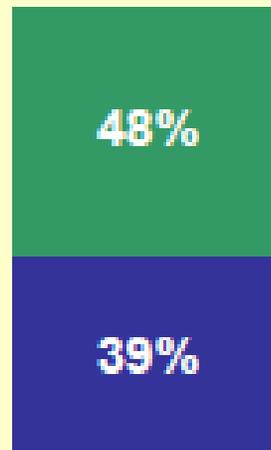
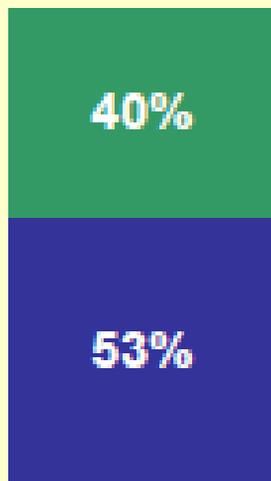


## PERCENT "EXCELLENT" AND "GOOD" FOR GLOBAL SATISFACTION ITEMS

Overall satisfaction

92%

87%



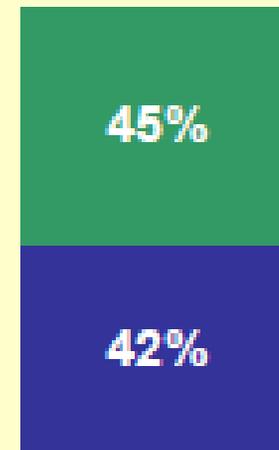
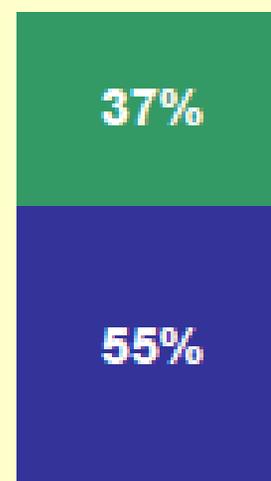
RI

MIV

Recommendation to others

92%

87%



RI

MIV

# Nursing Home Family Satisfaction, 2011 (Last Year)



## Primary Strengths:

- Respect for privacy
- Resident-to-resident friendships
- Commitment to family updates

## Primary Opportunities:

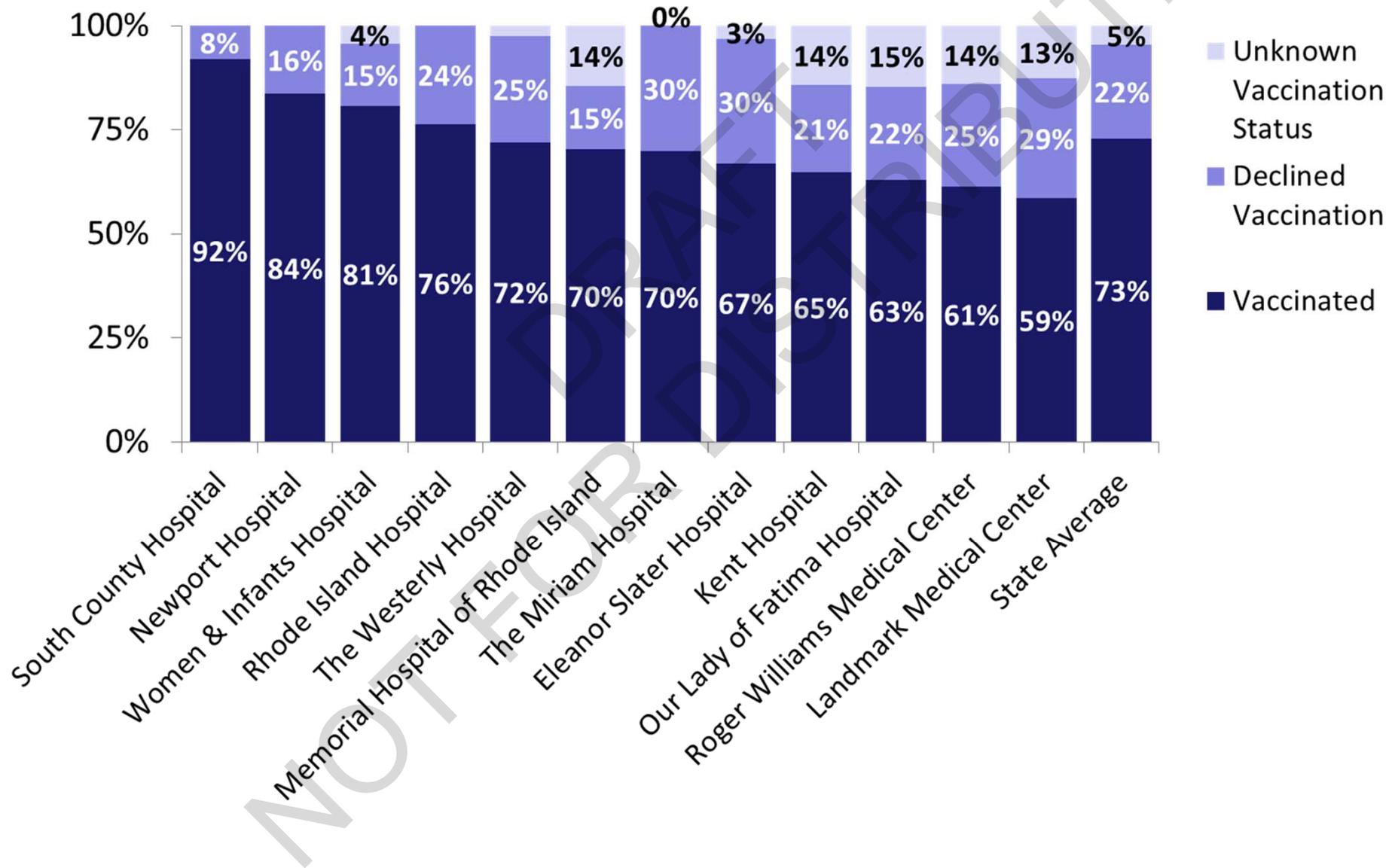
- Adequate staff to meet needs
- Attention to resident grooming
- Responsiveness of management



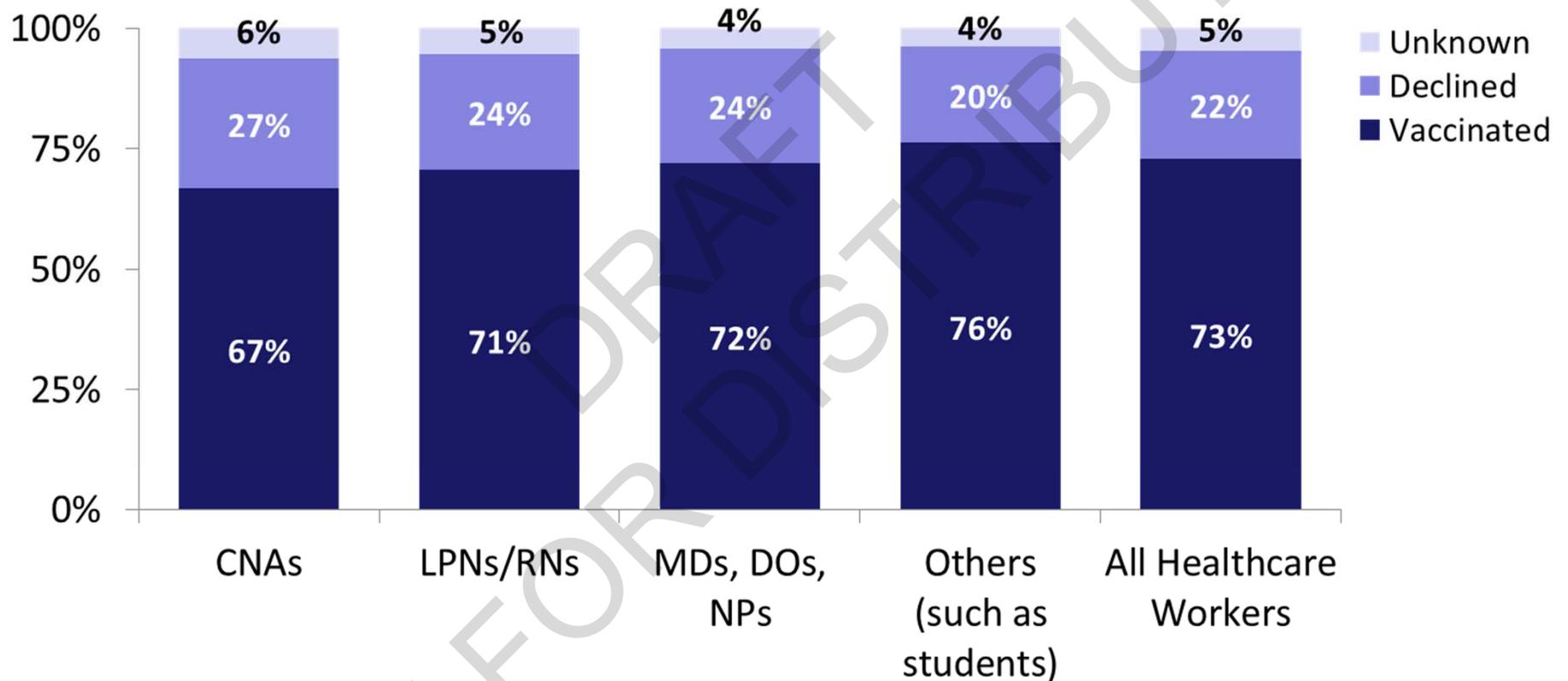
# HCW Vaccination Status, 2011-2012

- Active declination process
  - May change with 2012-2013 season
  - 9/21 Public Hearing on Rules and Regulations
- Limitations
  - Self-report to Dr. John Fulton
  - Reflects only employees
  - Includes significant “unknown” population
- Reporting
  - Hospital (have data) and nursing home (awaiting data)
  - Home health pilot (awaiting data)

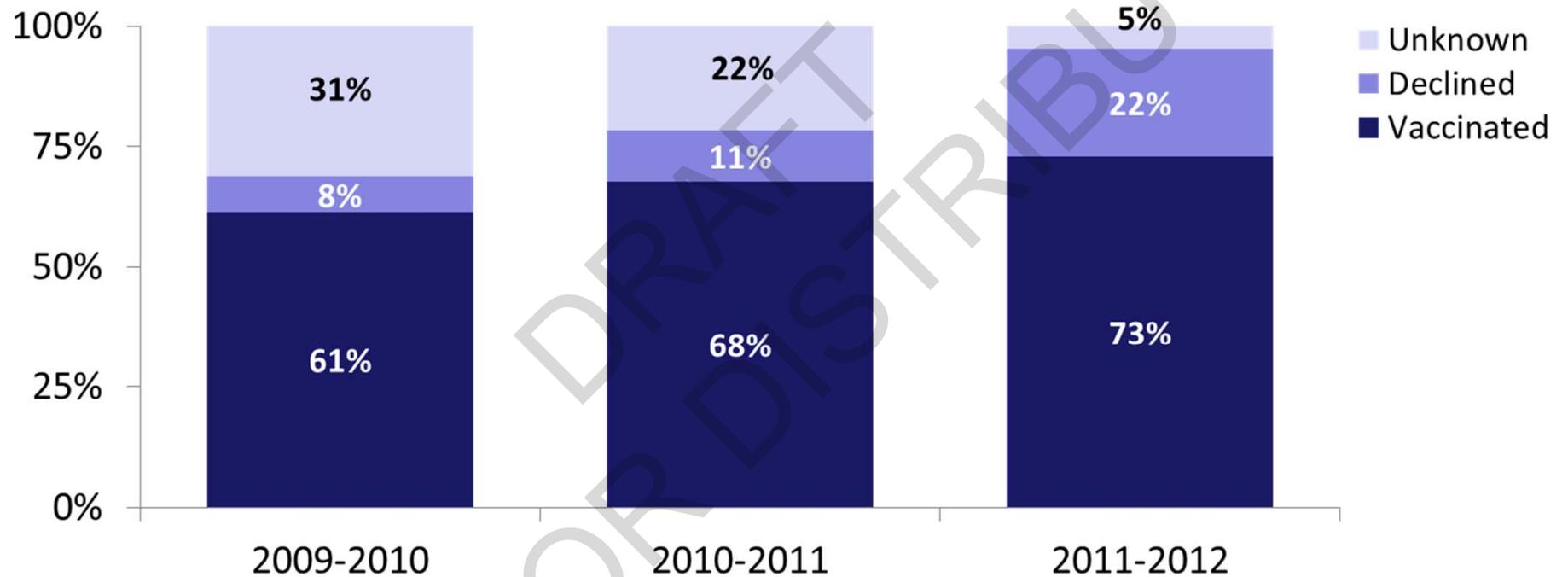
# Hospital HCW Vaccination Status by Hospital, 2011-2012



# Hospital HCW Vaccination Status by Worker Status, 2011-2012



# Hospital HCW Vaccination Status by Worker Status, Past 3 Seasons

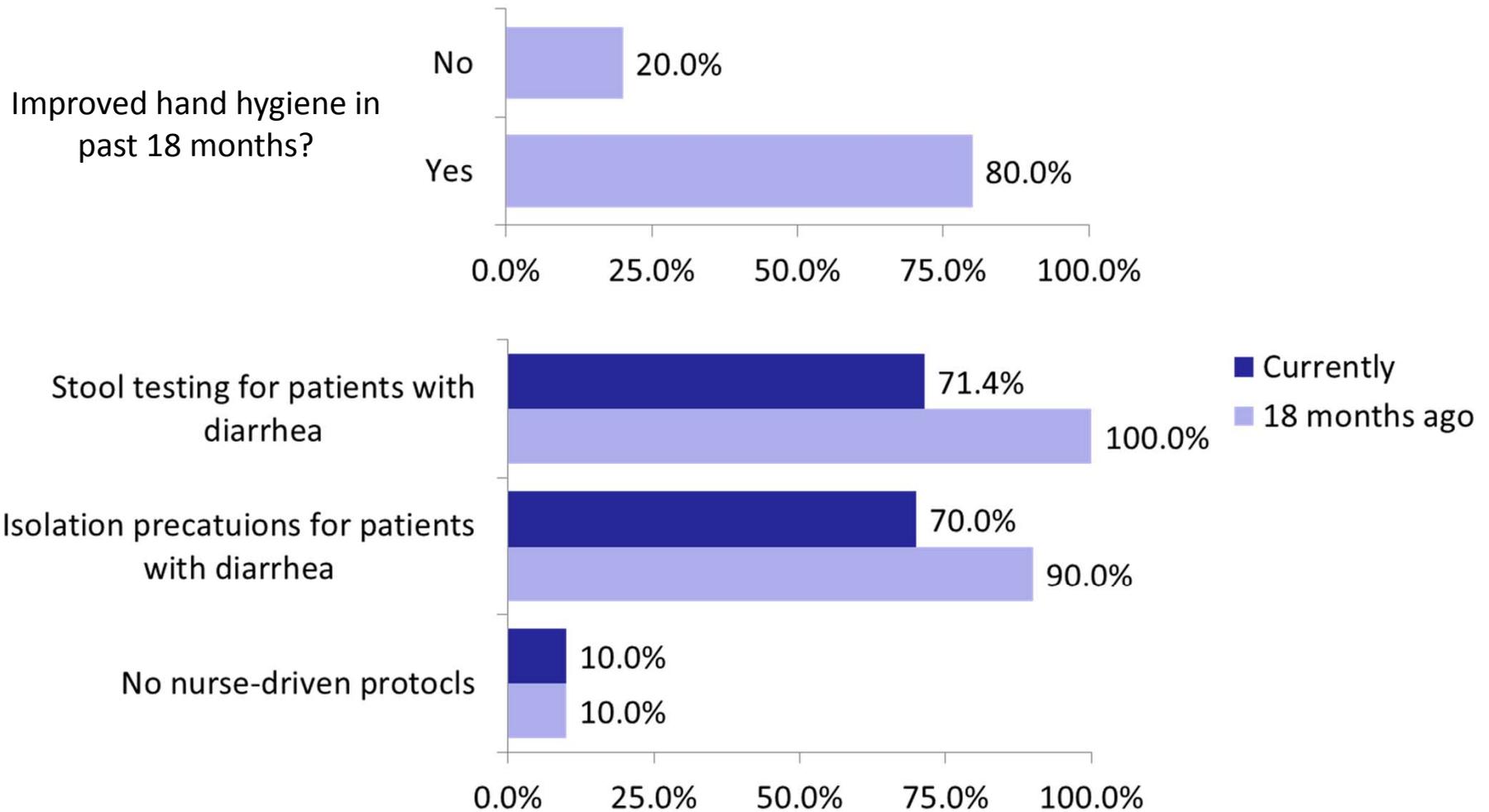




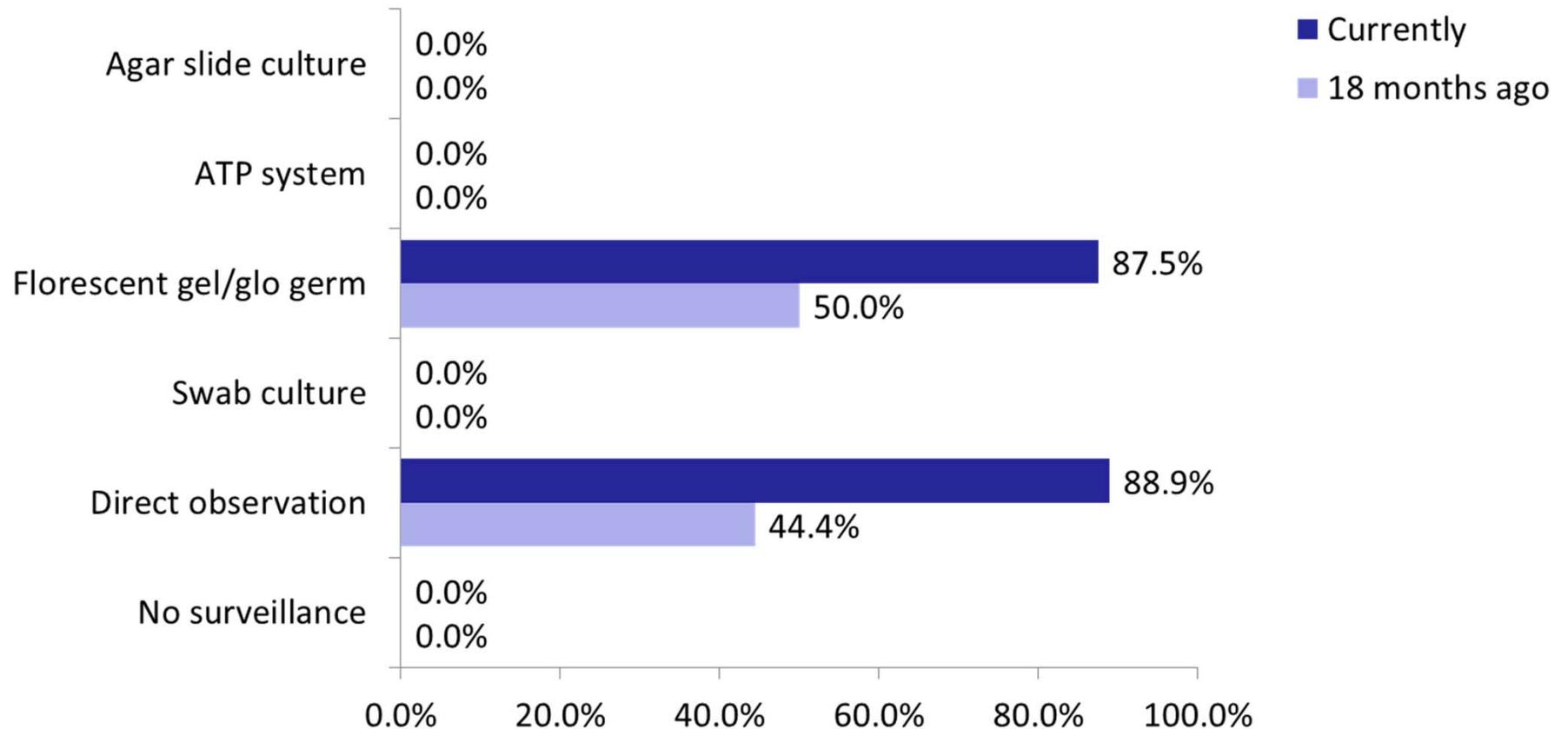
# Hospital *C. Difficile* Reporting

- Why report?
  - More frequent, severe and difficult to treat
  - Patients in hospitals and long-term care are vulnerable
  - Reasonably preventable with proper care
- Logistical and statistical considerations
  - Comparison period
  - Testing methods
  - Medicare data submission (now) and reporting (2014)

# Hospital Hand Hygiene Compliance and Nurse-Driven Protocols (N=10)



# Hospital Environmental Cleaning Surveillance (N=10)



# Hospital *C. Difficile* Reporting, Methods



- Comparative ratings
  - ◆
  - ◆ ◆
  - ◆ ◆ ◆
- Based on?
  - Self-report, longitudinal data
  - Standardized Incidence Ratio (SIR)
  - 90% Confidence Ratio

# Hospital *C. Difficile* Reporting, Methods



- Calculate SIR = (observed cases) / (expected cases)
  - Baseline to calculate expected cases
- Apply 90% Confidence Interval (CI)
  - Account for variability in estimate
- Assign diamonds
  - ◆ = Worse than average
  - ◆◆ = Average (90% CI includes 1.0)
  - ◆◆◆ = Better than average (also if observed = 0)

# Hospital *C. Difficile* Reporting Questions



- What is the local priority for reporting?
  - How do we weigh burden vs. value?
- Does the CMS reporting schedule change our plans?
  - Different method (CDI vs. LabID)
  - Reporting in mid-2014
- How do we account for changes in lab testing?
  - At baseline, 3 of 11 using PCR testing
  - Currently, 9 of 11 using PCR testing
- Do we have sufficient data to report?
- If we report, is it a one-time report prior to CMS reporting? Or do we continue data collection?



## Action Items

- Physician Detail Reports
- FY 2012 Annual Report
- Others?



**Samara Viner-Brown, MS**

Chief

Center for Health Data & Analysis

401.222.5935

[Samara.Viner-Brown@health.ri.gov](mailto:Samara.Viner-Brown@health.ri.gov)

[www.health.ri.gov](http://www.health.ri.gov)

**Rosa Baier, MPH**

Senior Scientist

Healthcentric Advisors

401.528.3205

[rbaier@riqio.sdps.org](mailto:rbaier@riqio.sdps.org)

[www.healthcentricadvisors.org](http://www.healthcentricadvisors.org)

## Standardized Incidence Ratios (SIRs)

Rachel Voss, MPH  
Rosa Baier, MPH

HAI Subcommittee, 4/25

## Discussion Topics

### Questions:

- How do we calculate incidence?
- How do SIRs help understand incidence?
- How do you compare incidence across facilities?
  - ICU-level or facility-level?
  - What is valid using SIRs?
  - ***What is useful for consumers?***
- If we report at the facility-level, how are ICU data aggregated to one score, then diamonds?

## Incidence

- The number of new (hospital-acquired) cases of an infection within a certain population over a certain period of time

$$\text{Incidence} = \text{cases} \div \text{line days} \times 1,000$$

- *Example:*

### CLABSI infections in Med/Surg ICUs

ICU	Cases	Line Days	Rate
Med/Surg ICU A	3	627	4.78

- Useful to evaluate prevention efforts

## SIRs

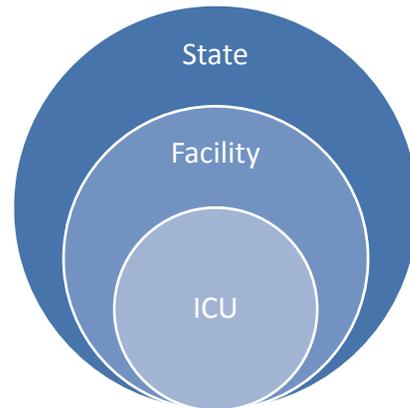
- Often rare occurrences (few cases), with rates that vary based on casemix
- Need to compare rates from a subgroup to the entire population
  - Similar risk (conditions, severity, LOS, etc.)

- *Example:*

ICU	Cases	Line-Days	Rate
Med/Surg ICU A	3	627	4.78
Med/Surg ICU B	5	894	5.59

## SIRs, Cont'd

- **Scalable metric:** Can validly measure HAI experience over different aggregation levels:
  - Single location
  - Multiple locations that comprise a larger entity
    - ICU, facility, or state



Source: Laura McAllister, CDC, 3/3/11

## ICU-Level SIRs

- Even among units of the same type, raw incidence rates may not be meaningful
  - Differences in unit size and LOS (risk)
- *Example:*

Q: Is ICU A outperforming ICU B?

ICU	Cases	Line-Days	Rate
Med/Surg ICU A	3	627	4.78
Med/Surg ICU B	5	894	5.59

## ICU-Level SIRs, Cont'd

- SIRs allow easy comparison of like ICUs
  - Adjusts for unit differences (risk)
  - $SIR = (\text{observed cases} \div \text{expected cases})$
  - Expected cases can be derived from state or national rates, as long they are the same overall population

- *Example:*

ICU	Cases	Line-Days	Rate	NHSN Rate	Expected Cases	SIR
Med/Surg ICU A	3	627	4.78	2.00	1.254	2.39
Med/Surg ICU B	5	894	5.59		1.788	2.80

“CLABSI incidence in ICU A is 139% higher than expected; ICU B is 180% higher.”

## ICU-Level Confidence Intervals (CIs)

- *Example:*

ICU	SIR	90% CI
Med/Surg ICU A	2.39	0.65–6.2
Med/Surg ICU B	2.80	1.1–5.9

- Q: Are these SIRs meaningfully different?
  - >1.0 = Worse than expected
  - =1.0 = Same as expected
  - <1.0 = Better than expected
- A: ICU A is the same as expected; ICU B is worse.

## ICU-Level Diamonds

- **Example:**

ICU	SIR	90% CI
Med/Surg ICU A	2.39	0.65–6.2
Med/Surg ICU B	2.80	1.1–5.9

“The confidence interval for the CLABSI SIR in ICU A includes 1.0 and is about the same as expected; in ICU B, it does not include 1.0, so it is worse than expected.”  
VS.

ICU	SIR	90% CI	Diamonds
Med/Surg ICU A	2.39	0.65–6.2	◆◆
Med/Surg ICU B	2.80	1.1–5.9	◆

- **Helps consumers interpret data** (cognitive science)

## Facility-Level SIRs

- Summarize data across locations
  - $SIR = (\text{sum observed cases} \div \text{sum expected cases})$

- **Example:**

Hospital A	Cases	Line-Days	NHSN	Expected	Overall SIR
Med/Surg ICU	3	627	2.00	1.254	2.10
Coronary ICU	0	82	2.10	0.1722	
<b>Total</b>	3	-	-	1.4262	

Hospital B	Cases	Line-Days	NHSN	Expected	Overall SIR
Med/Surg ICU	5	894	2.00	1.788	0.77
Step-down	0	227	2.40	5.448	
Surg CardioTx	1	425	1.40	0.595	
<b>Total</b>	6	-	-	7.831	

## Facility-Level SIRs, Cont'd

- Valid because uses appropriate rates for each location type to calculate expected cases\*
  - Calculate SIR for each unit before “rolling up”
  - Describes overall experience of a given entity
  - Accounts for differences in HAI risk among units
- Useful to evaluate overall facility performance (internal QI)
- **Consumer friendly**

\*Source: Laura McAllister, CDC, 3/3/11

## Facility-Level CIs

- Calculated in same way as individual ICUs
- Example:

	Total Cases	Overall SIR	CI	Diamonds
Hospital A	3	2.10	0.57 – 5.42	◆◆
Hospital B	6	0.77	0.33 – 1.52	◆◆

Shows consumers that Hospitals A's and B's CLABSI rates are not meaningfully different from what's expected, despite differences in the incidence rates and SIRs.

## Additional Information

- [NHSN issue brief:](https://www.gha.org/pha/Provider/tips/ProviderRes/NHSNStandardizedInfectionRatio111610.pdf)  
<https://www.gha.org/pha/Provider/tips/ProviderRes/NHSNStandardizedInfectionRatio111610.pdf>