

# HAI Advisory Committee

## Infection Preventionist (IP) Resources Assessment Subcommittee

### Pilot Survey Results

Conducted January 2015

Presented February 12, 2015

By Marsha Barnden, MSN, CIC  
Subcommittee Chair

# Objectives

- Brief history of survey
- Pilot Results Part I – Including comparison to New York IP Staffing
- Pilot Results Part II
- Discussion and motion for moving forward with dissemination of survey statewide

**Please hold all questions to the end of the presentation.**

# Survey Background

- **Subcommittee charge:**
  - (2) In accordance with subdivision (a) of Section 1288.6, recommend a **method** by which the number of infection prevention professionals would be assessed in each hospital (SB 158).
- **Literature search and approach**
- **Feedback from renowned researchers**
- **Survey tool accepted by HAI-AC and forwarded to Department for pilot August 2014**

# External Consultants to Survey

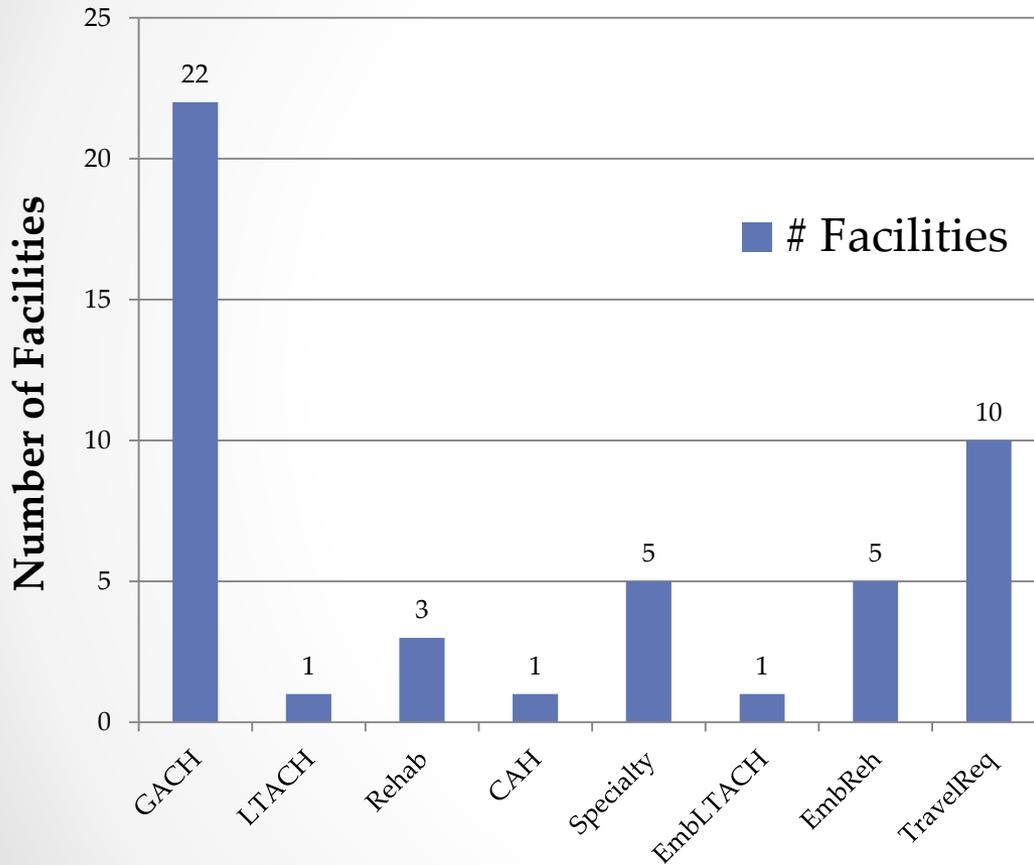
- **Dr. Patricia Stone, RN, MS, MPH, PhD, FAAN**  
Tenured Professor of Nursing, Columbia University, New York
  - Authored 18 invited articles or chapters in texts; 111 articles in peer-reviewed journals, including 34 as first author; numerous presentations and abstracts
- **Dr. Monika Pogorzelska-Mariarz, PhD, MPH**  
Associate Professor, Jefferson School of Nursing, Philadelphia
  - Authored four chapters in texts; 35 articles in peer-reviewed journals, including eight as first author; numerous presentations and abstracts
- **Dr. Robert Jako, PhD**  
Director, Human Resources, Kaiser Permanente
  - Authored six articles, including two as first author
- **Rae Greulich, HAI-AC Consumer Representative**

# Pilot Survey

- Due to (1) the necessity to **ensure appropriateness of survey questions** and (2) concerns related to the forthcoming APIC Mega Survey (including the possibility of survey fatigue), the need for a more immediate pilot became evident
  - A sample size of 25 was sought for the pilot
  - The survey tool was shared with the California APIC Coordinating Council (CACCC) members and executive council and APIC-San Francisco Bay Area Chapter members
- 25 responses were received; three responses were forfeited due to obviously erroneous data or being incomplete; n=22

# Part I: Types of Facilities

# Facilities Represented, n = 22



Type of Facility: 38 types identified

- Range of # beds: 25-817
- Mean: 305
- Median: 220
- 10/21 (48%)  
\*Travel to off site areas

- GACH:** General acute care
- LTACH:** Long term acute care
- Rehab:** Rehabilitation
- CAH:** Critical Access Hospital
- Specialty:** Hospital devoted to pediatrics, women and children, ...
- EmbLTACH:** Embedded LTAC
- EmbReh:** Embedded Rehabilitation
- \*TravelReq:** Have campuses or clinics > 15 miles and/or 20 min from where main IP dept is located

# Methods for Part I – Pilot

- New York requested # of licensed general acute care beds (GACH) and # of IPs at the facility
- A ratio of IPs per 100 (ACB) was calculated by dividing # FTE IP $\times$ 100 by # licensed ACB
- The same method was used when determining the number of beds per Full Time Equivalents (FTE) IP after adjusting different settings into acute care beds

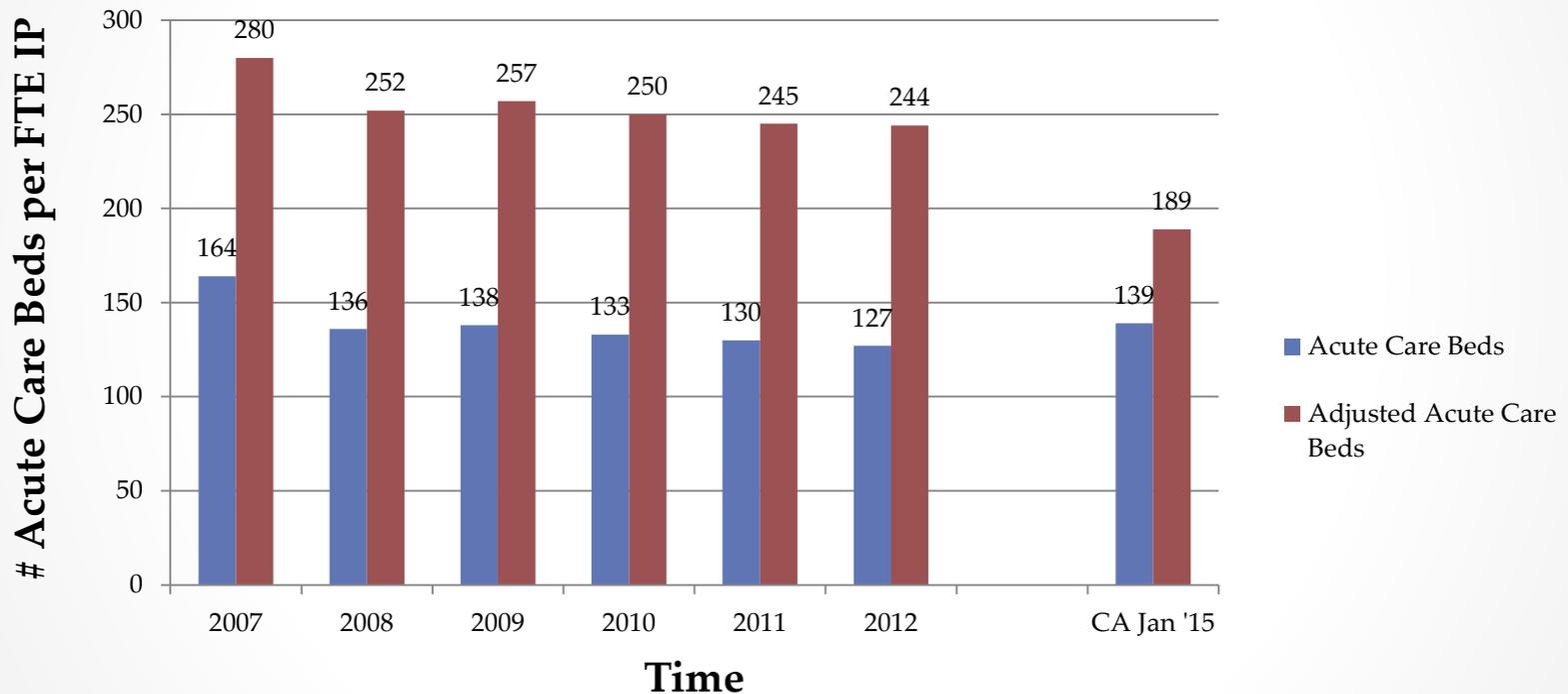
NY adjusts for the # of IP hours worked and the # patients the IP oversees

Adjustment Values to Acute Care Beds (ACB) based on two measures:

- Acute Care Beds per 1 FTE IP
- Aggregate Beds per 1 FTE IP (combines beds using formula):
  - 1 ICU bed=2 ACBs
  - 1 LTC bed=1/2 of an ACB
  - Dialysis Facility=50 ACBs
  - Ambulatory Clinics=10 ACBs
  - Ambulatory Surgical Center=50 ACBs
  - Private MD Office=5 ACBs

# Comparison Between New York and California IP FTE Staffing Ratios

**Comparison of New York IP Staffing Ratios 2007-2012  
with CA Pilot Survey IP Staffing Ratio, Jan '15, n=22**



Note: CA staffing for adjusted licensed acute care beds is lower as **pilot** did not ask about ambulatory clinics covered (should add 10 adjusted beds per clinic.) A question specific to IPs per average daily hospital census will be added to the final survey.

# From the Massachusetts Department of Public Health

“... no recent studies have been done associating specific staffing levels with infection outcomes. There was strong agreement however that hospital decisions concerning appropriate staffing levels must be based on more than bed numbers, and should take into account the scope of the institution’s clinical programs, the complexity of the health care system, characteristics of the patient population, unique needs of the facility and community, as well as the availability of tools (IT) for performing critical tasks.”<sup>5</sup>

JSI Consortium, Best Practices Recommendation 1: Infection Prevention and Control Program Staffing, 2008, p34

# Pilot Survey Responses – Part II

\*Time frame for all questions was ‘over the past 12 months’\*

IP demographics

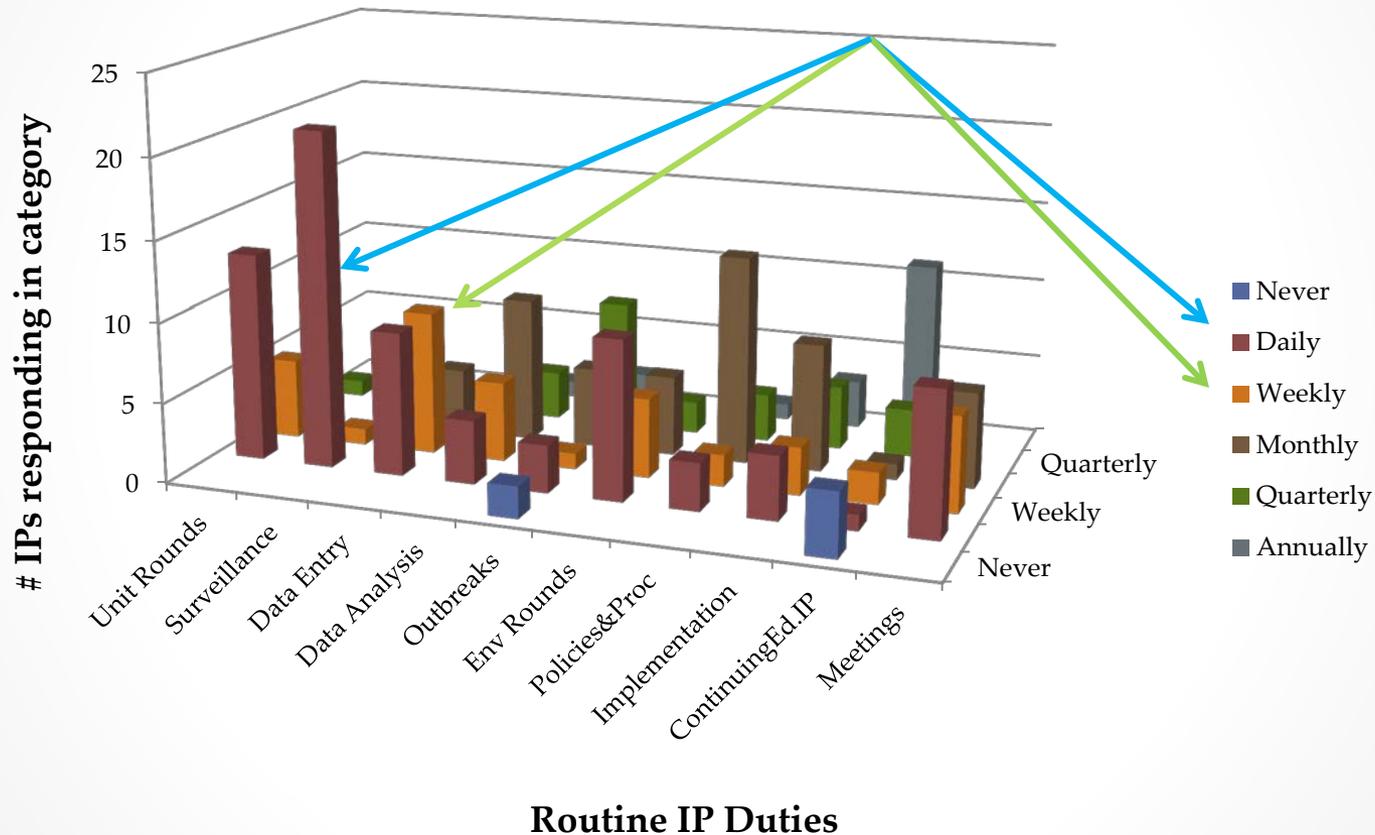
## Frequency of IP duties

- Routine duties
- Sustainability of prevention activities
- Related to education/consultation
- Performance improvement activities
- Duties and responsibilities performed not previously queried
- Resources available to complete tasks
  - Added resources
- Top duties that would be missed or postponed if day re-prioritized
  - Quality of duties if missed, postponed or not as thoroughly performed
- Final questions

# IP Demographics

- # of IPs in pilot = 53
- Experience: < 1 year to 8+ years in field
- Years @ facility: The question will be modified to differentiate time @ facility and time @ facility in IP position
- Additional hours worked per week beyond budgeted hours ranged from 0.05% (1.0 FTE IP worked additional 2 hrs) to 0.88% hrs (0.4 FTE IP worked additional 14 hrs per week)
- General IP experience
  - < 2 years = 11
  - 2 to 5 years = 14
  - 5 to 8 years = 8
  - > 8 years = 18
- Certification status: 33 of 53 (62%) were certified. There were 20 non-certified IPs. Of these, 10 had 2 years or fewer years experience

# Infection Preventionist Routine Duties and Frequency of Performance



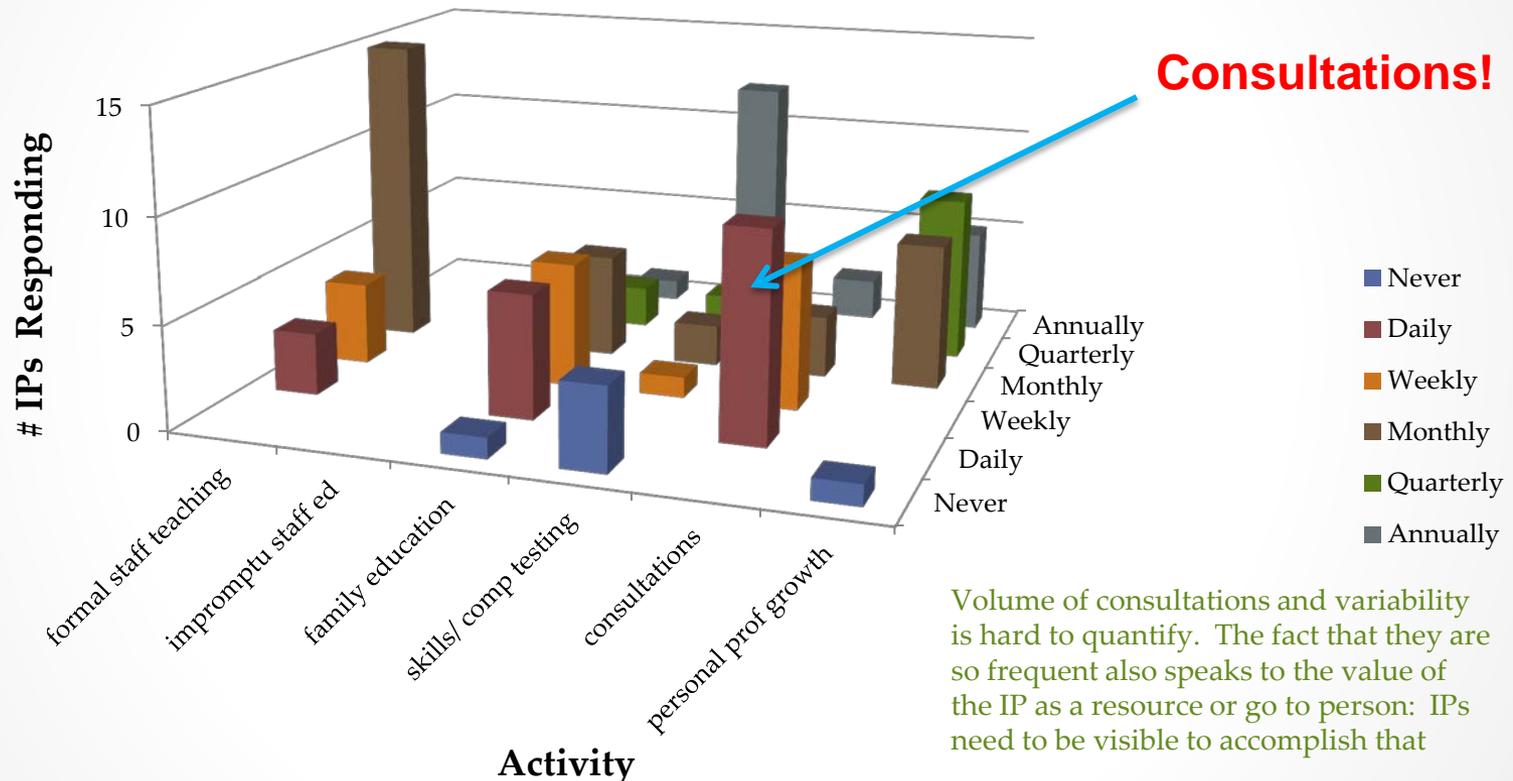
Instruction was to answer frequency of routine activity performed rather than what “should” be done by the IP Department

# Sustainability of Program Activities

	Never		Daily		Weekly		Monthly		Quarterly		Annually	
	IP	Other	IP	Other	IP	Other	IP	Other	IP	Other	IP	Other
Hand Hygiene	1	2	11	6	6	6	2	8	1			
CLIP	7	5	4	13	7		2	2		1	1	
CL Management	4	8	2	8	6	1	6	1	3	1		2
Foley Insert	5	5	2	13	4		5	2	4	1	1	
Foley Bundle												
Vent Prevent	6	6	3	15	4		5		2		1	
SCIP	4	8	3	10	2		6	2	5	1	1	

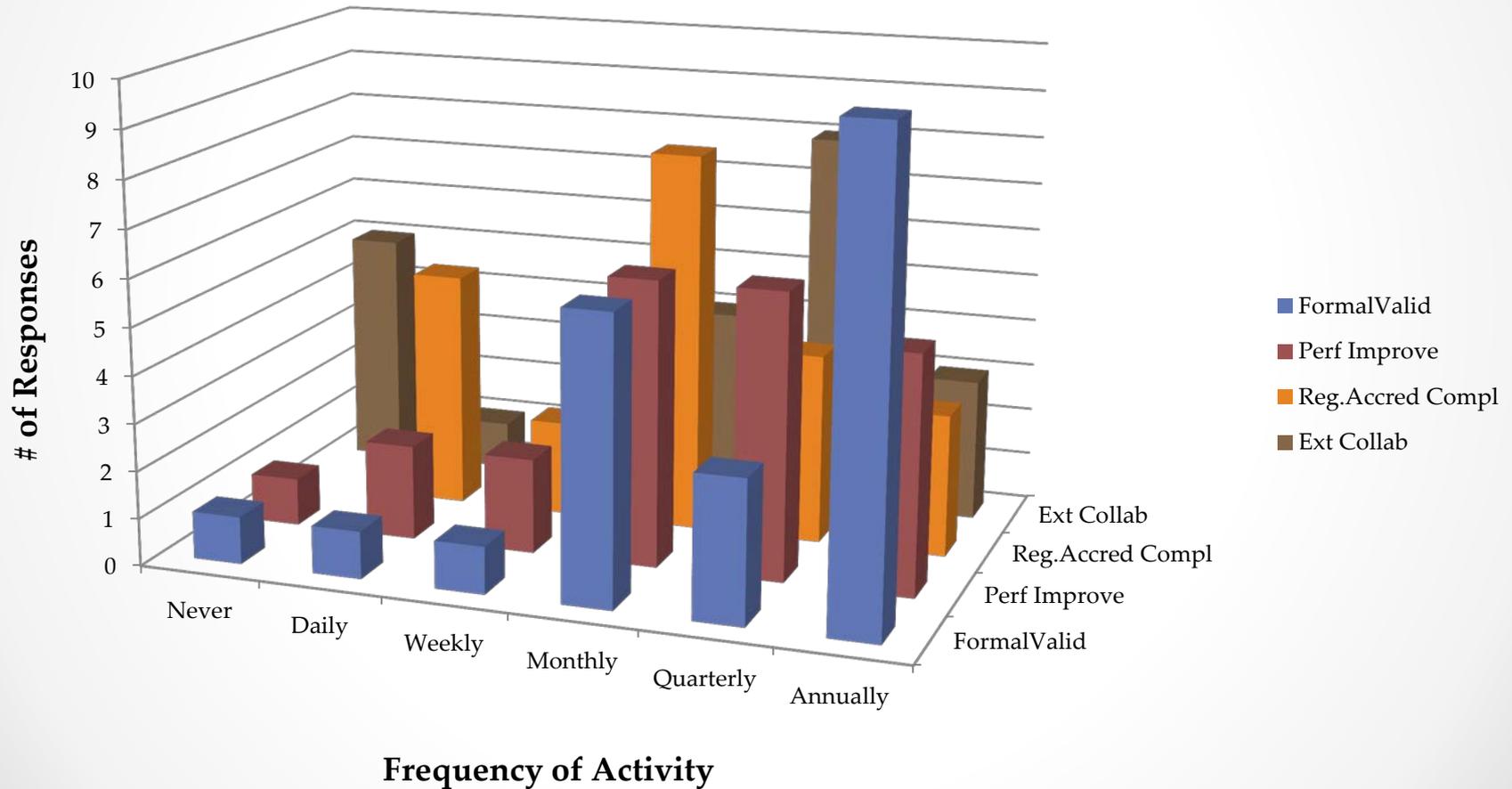
Question: Is prevention activity performed by an IP or by Other (unit or clinical staff)? Minimum unit of measure was highest frequency and one unit for the activity. Monitoring of foley prevention bundle was not asked but will be added.

# Education, Consultation, and Professional Development

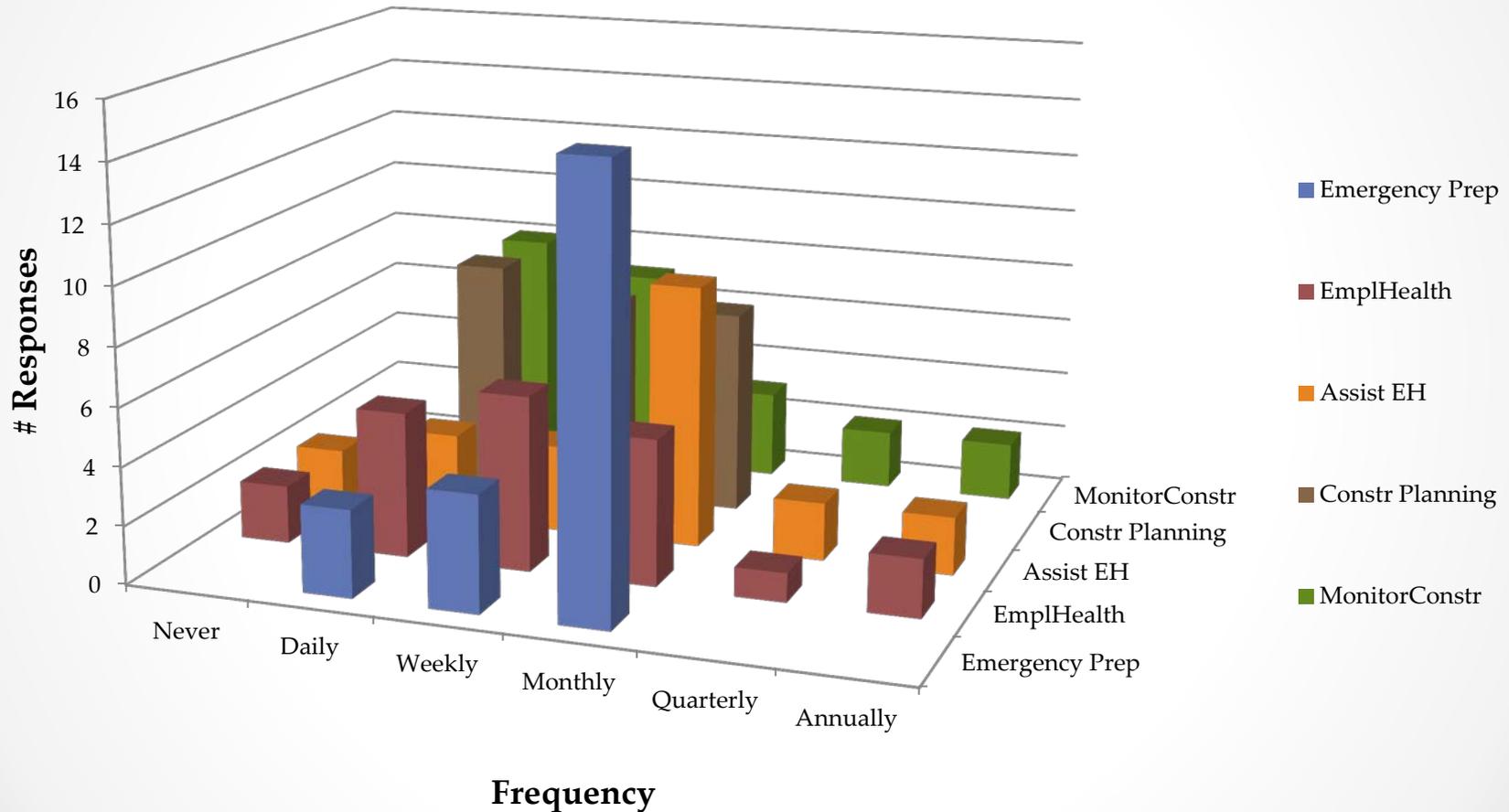


One question was asked about formal and impromptu staff education. It will be separated in the next version of the survey into two questions. Family education will include both formal and impromptu.

# Performance Improvement Activities

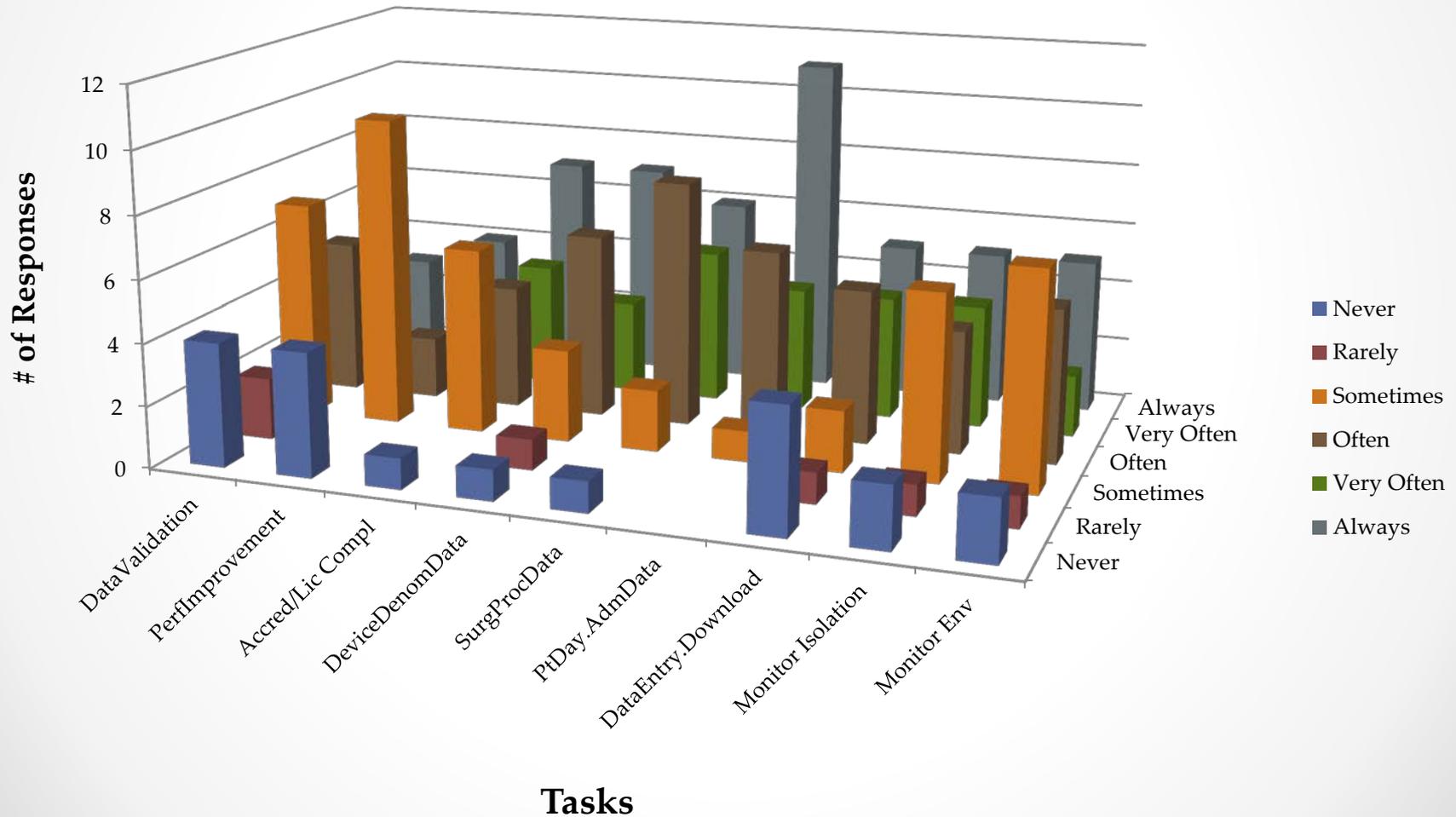


# Other Formal Activities



As there was confusion between IP input into construction planning and monitoring, those questions were re-worded.

# IP Department Perception of Adequacy of Resources

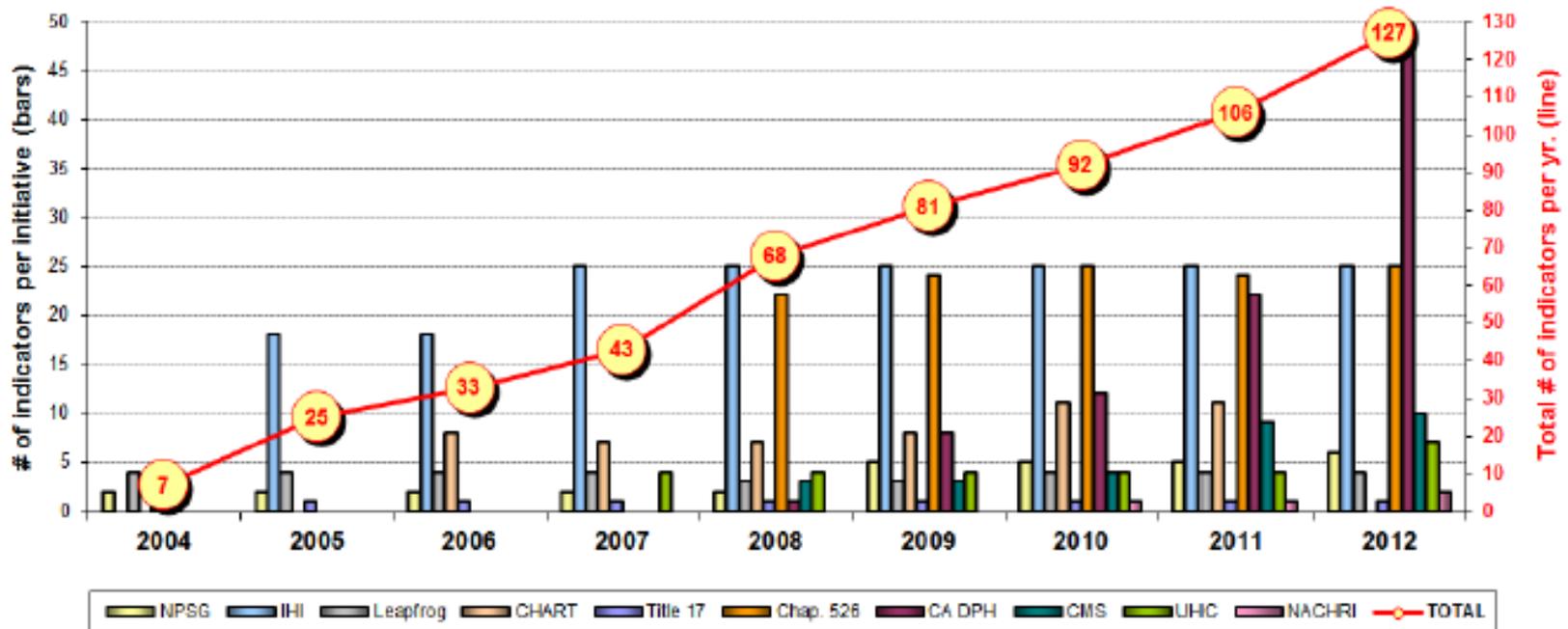


# Non-IP FTE Program Resources

- Eight of 21 (36%) Departments had non-IP staff FTE formally assigned (0.5 – 1.0 FTE)
- Four of 23 (17%) facilities had hired an outside IP consultant during past 12 months to support the Program
- Leadership met with the IP Department annually to assess resources in 14 of 22 (64%) facilities
- Eleven of 22 (50%) departments had a separate budget
  - The IP manager had discretionary control in 8 of 22 (36%) departments (three did not)

# Growth in Infection Control-Specific Quality Indicators 2004-2012

Growth in Number of Infection Control-Specific Quality Indicators Reported Externally



Used with permission of the University of California Health Systems Department of Epidemiology and Infection Control, Amy Nichols, Director

# Postponed or Missed Activities When a Day is Re-prioritized

## **Top Five:**

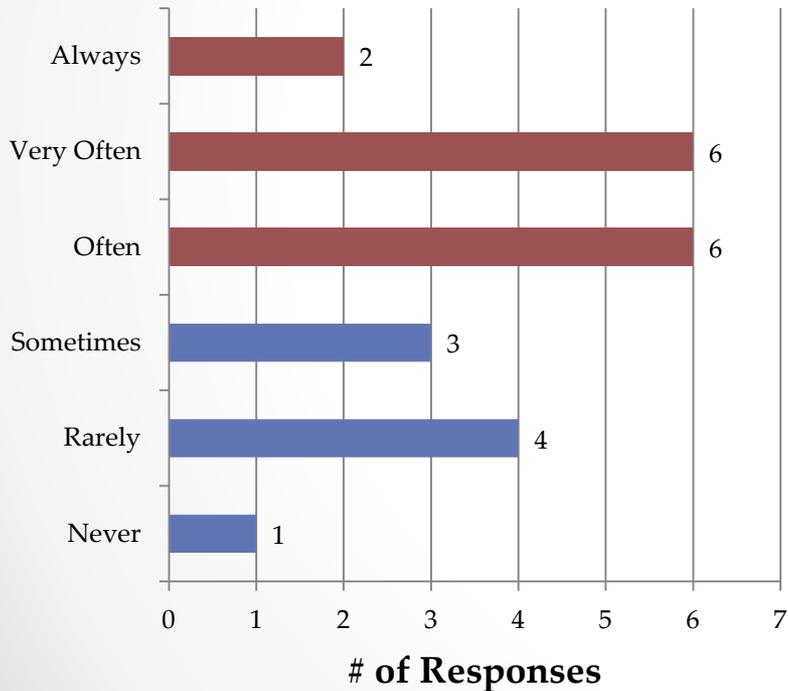
1. Professional education (83%)
2. Rounding on clinical units (79%)
3. Participation in routine meetings (65%)
4. Routine consultation (58%)
5. NHSN surveillance and reporting (55%)

## **Other Choices:**

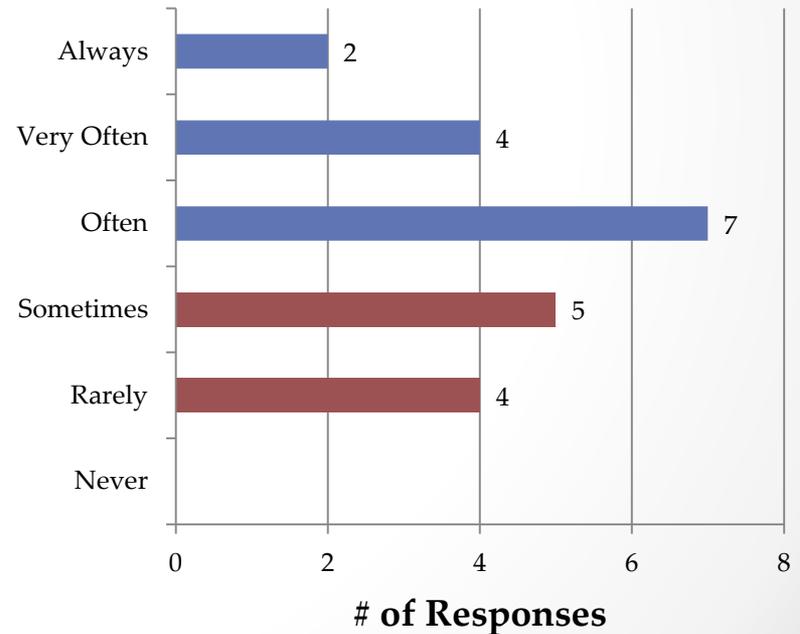
- Unrelated collateral duties
- Staff education
- Required public health reporting (CMRs)
- Routine emails
- Research of best practices
- QA/QI projects
- Updating policies & procedures

# Final Questions

**How often are the quality of missed or postponed duties compromised?**



**How often is it understood by hospital administration that infection prevention belongs to all staff?**



# Pilot Limitations

The purpose of the pilot was to collect information to strengthen and clarify the survey tool.

- Data, except demographics, collected is subjective.
- Initial n = 25 facilities; data was used from 22 facilities so small sample size.
  - Average hospital bed size was skewed towards larger facilities.
- Not all responders answered all questions.

# Summation of Pilot Results

- The pilot presents a snap shot of the scope of preventionist responsibilities and priorities
  - Appropriate application of the IP's knowledge and skill set is necessary for collaboration and synergy to optimize patient safety in a healthcare facility
- Results can provide the first step towards finalizing a method for more accurately assessing IP resources in a hospital
- Pilot results may point out gaps in infection prevention and control practice
- Pilot results can assist facilities' and CDPH HAI Program prevention and educational priorities
- The questions on **frequency of task performance, additional hours worked** beyond those budgeted for the position, and **duties missed or postponed** when an IP must reprioritize their day have never been previously surveyed.

# Motions Requested by Subcommittee

The IPA Subcommittee requests the HAI-AC:

1. **Approve changes** made to the IP Assessment Survey based on findings from the pilot.
2. Forward the survey tool (as approved) to the Department with a recommendation that the Department, working with members of the Subcommittee, **distribute the survey to all California hospitals within 30 days.**

# Subcommittee Members

Marsha Barnden, RNC, MSN, CIC, Chair

Karen Anderson, CLS, MPH

Enid Eck, RN, MPH

Lilly Guardia-LaBar, RN, MBA, CIC

Suzanne Anders, MHI

Claudia Quintana

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CDPH Staff:

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Jorge Palacios

# Bibliography – Literature Search

(by Lilly Guardia-LaBar)

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3. Stone, PW, Larson, E et. al., The Changing Role of the Infection Preventionist: A Survey of California Hospitals, Columbia University School of Nursing, Dec 2009
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