

Current State Assessment: How/where/why to collect information?

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PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY



Housekeeping

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- Mute your phone if you are not speaking
- Do not put the phone line on hold
- Use the chat box to ask questions during the presentation
- Use the open line at the end of the presentation for Q & A
- Use the webinar evaluation to offer feedback on today's presentation and make suggestions for future calls

Outline

- Nursing home gap survey
- Current state assessment
 - Case studies and discussion
- Q & A
- New EQulP resources

EQulP is a Partnership

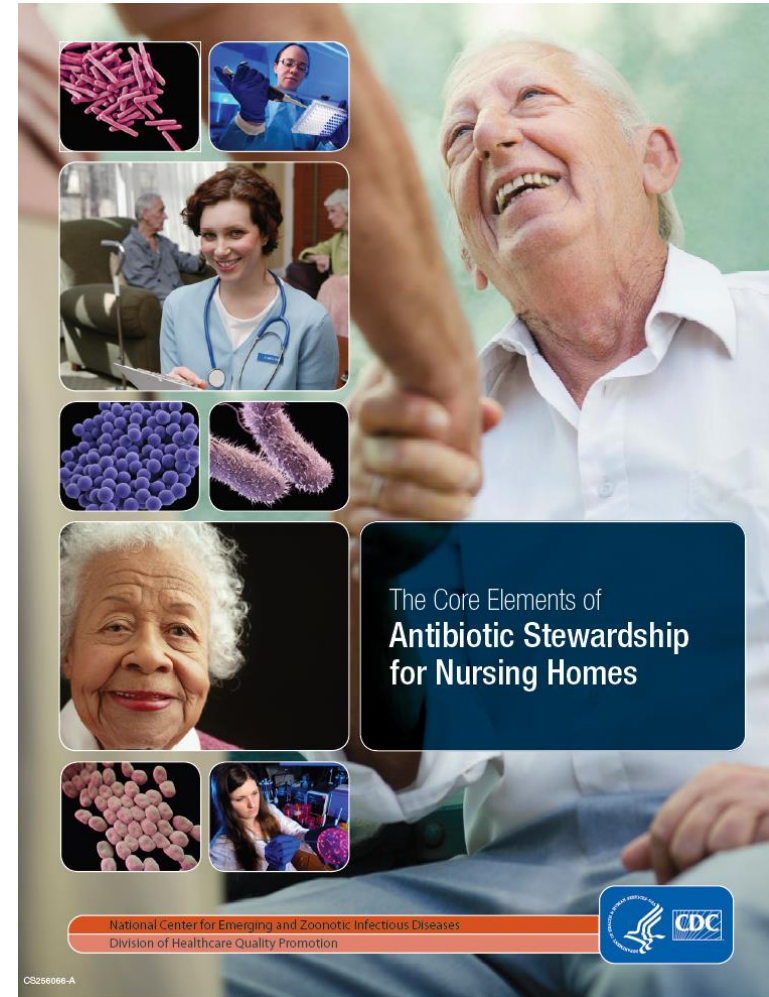


- Local Public Health Departments
- Washington Department of Social and Health Services
- Leading Age
- Washington Health Care Association
- NADONA
- And many others

SNF Gap Survey

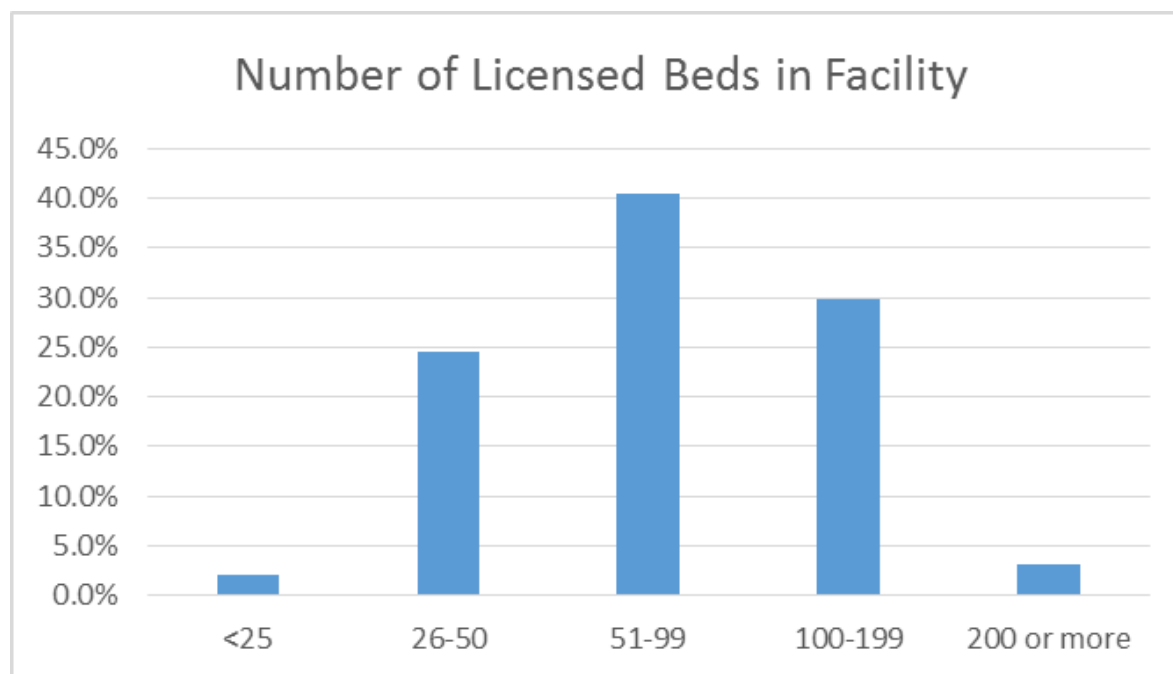
7 Core Elements of AMS for NH

- Leadership commitment
- Accountability
- Drug expertise
- Action
- Tracking
- Reporting
- Education



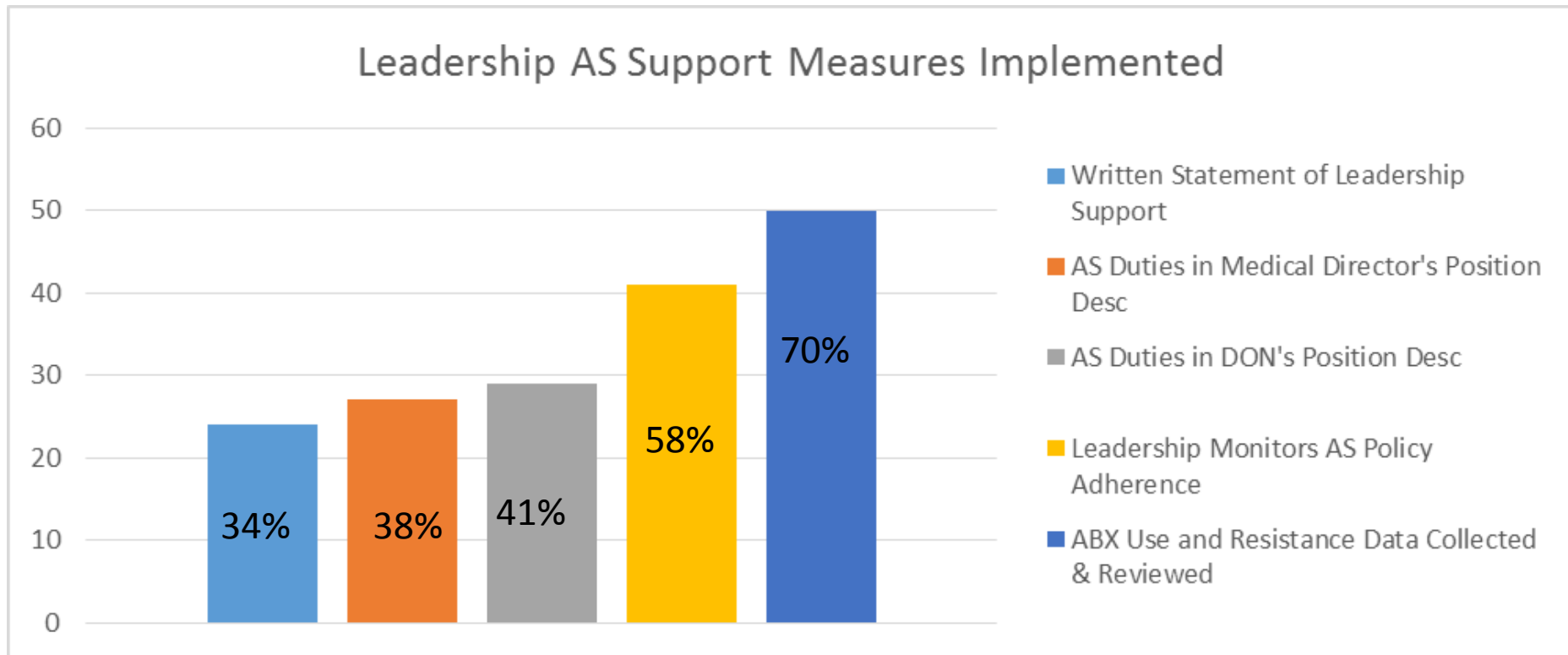
SNF Gap Survey on IP and AMS Resources

- Distributed to 212 Washington and 77 Idaho SNFs
- Open 12/13/16-1/30/17
- Total responses 94 (33% response rate)



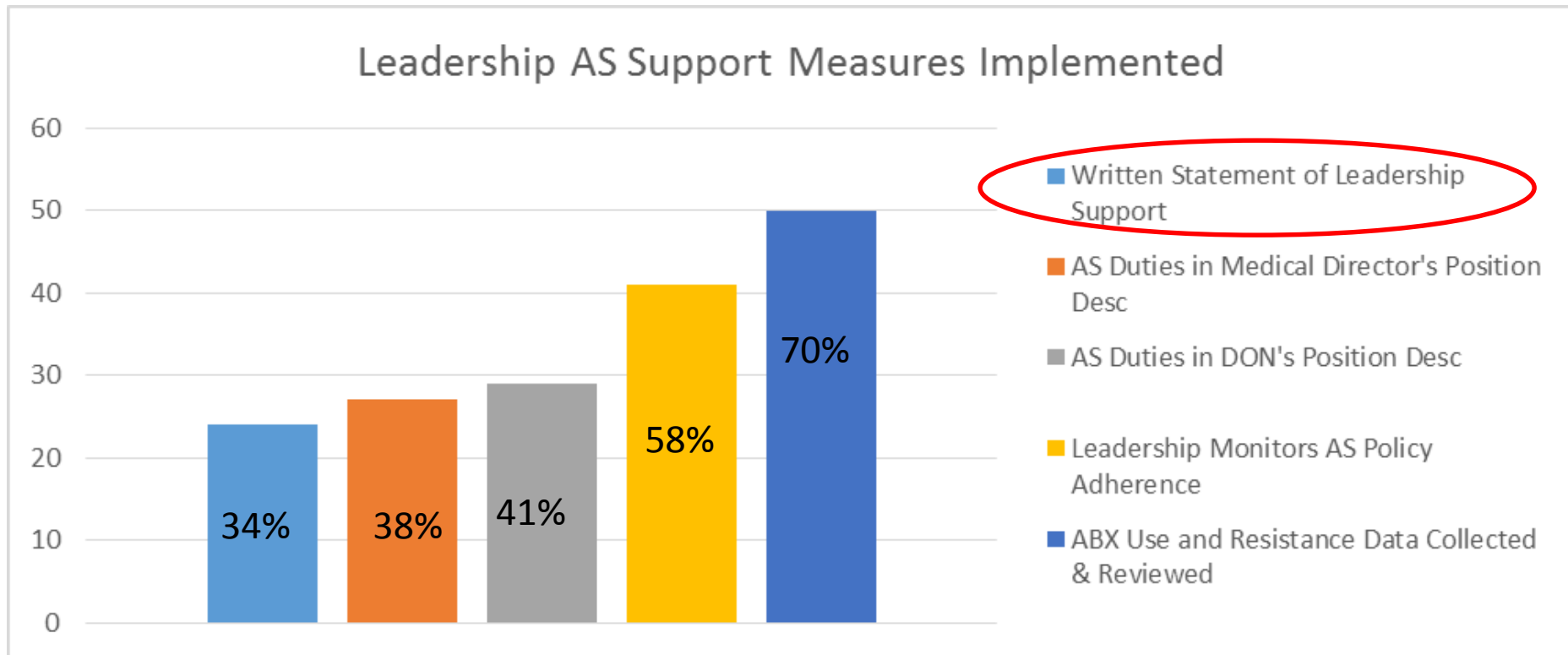
SNF Gap Survey— Leadership Commitment

- 71 (76%) have leadership support for AMS



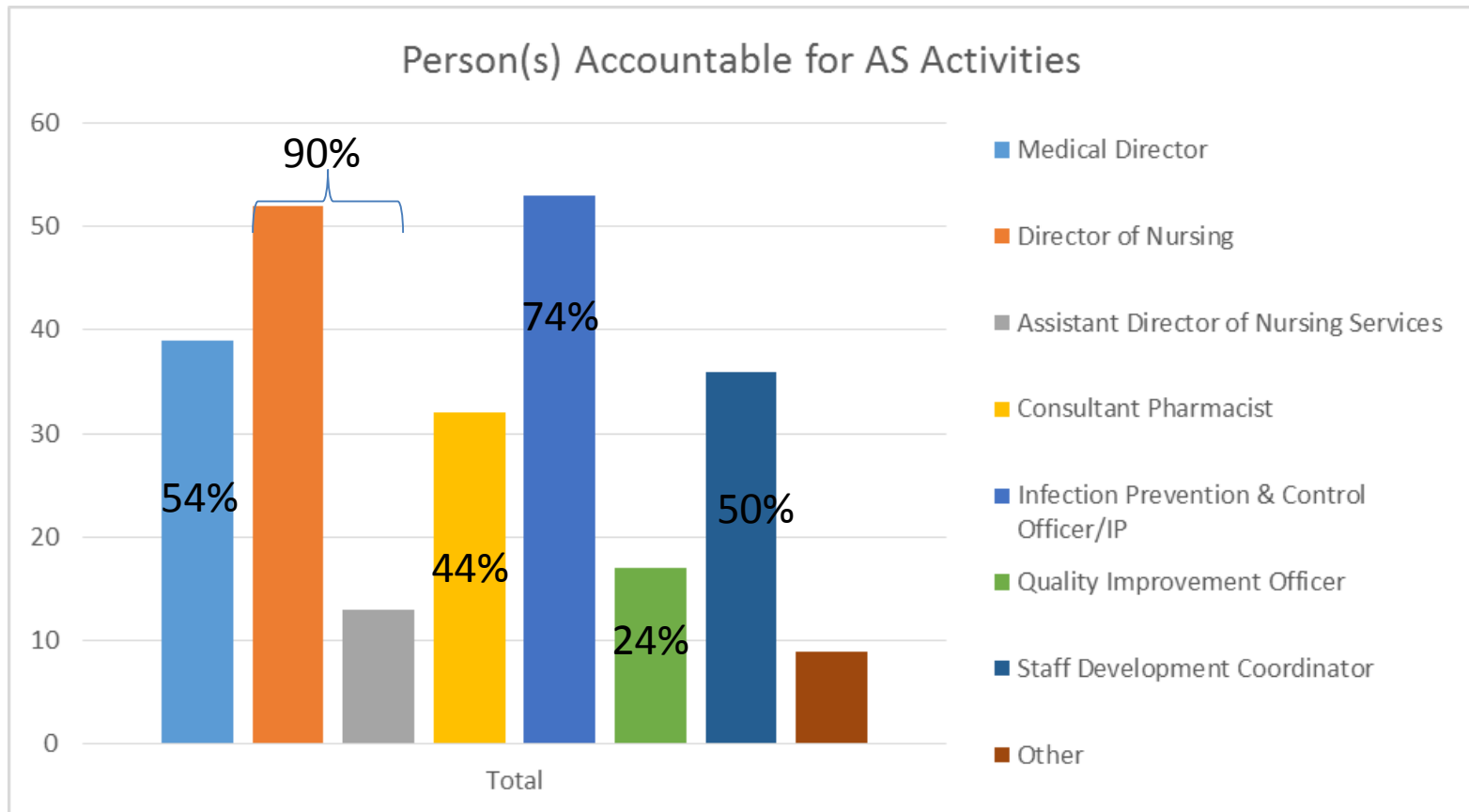
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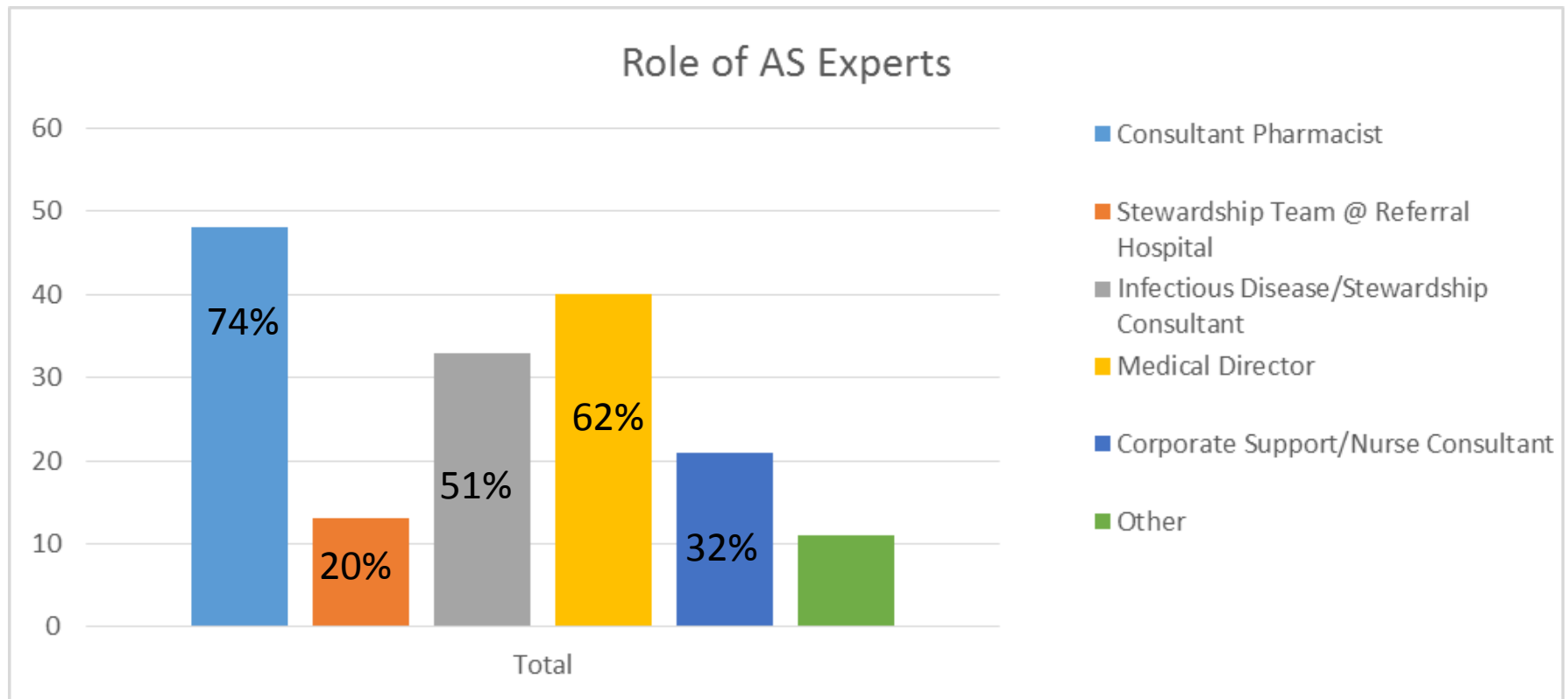
SNF Gap Survey— Accountability

- 72 (77%) have designated ASP leader



SNF Gap Survey— Drug Expertise

- 65 (69%) have access to pharmacy expertise

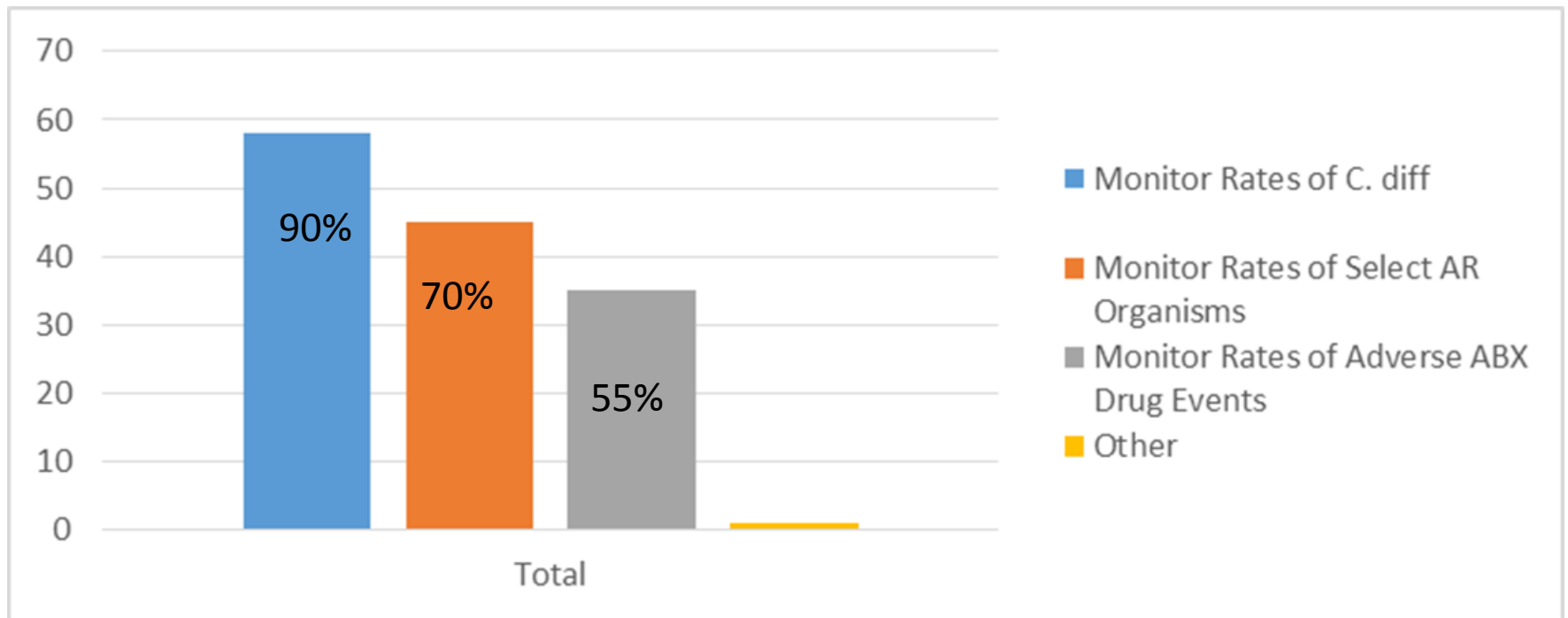


SNF Gap Survey— Actions

- 45 (48%) have policies to improve prescribing
- 63 (67%) have practices to improve antibiotic use

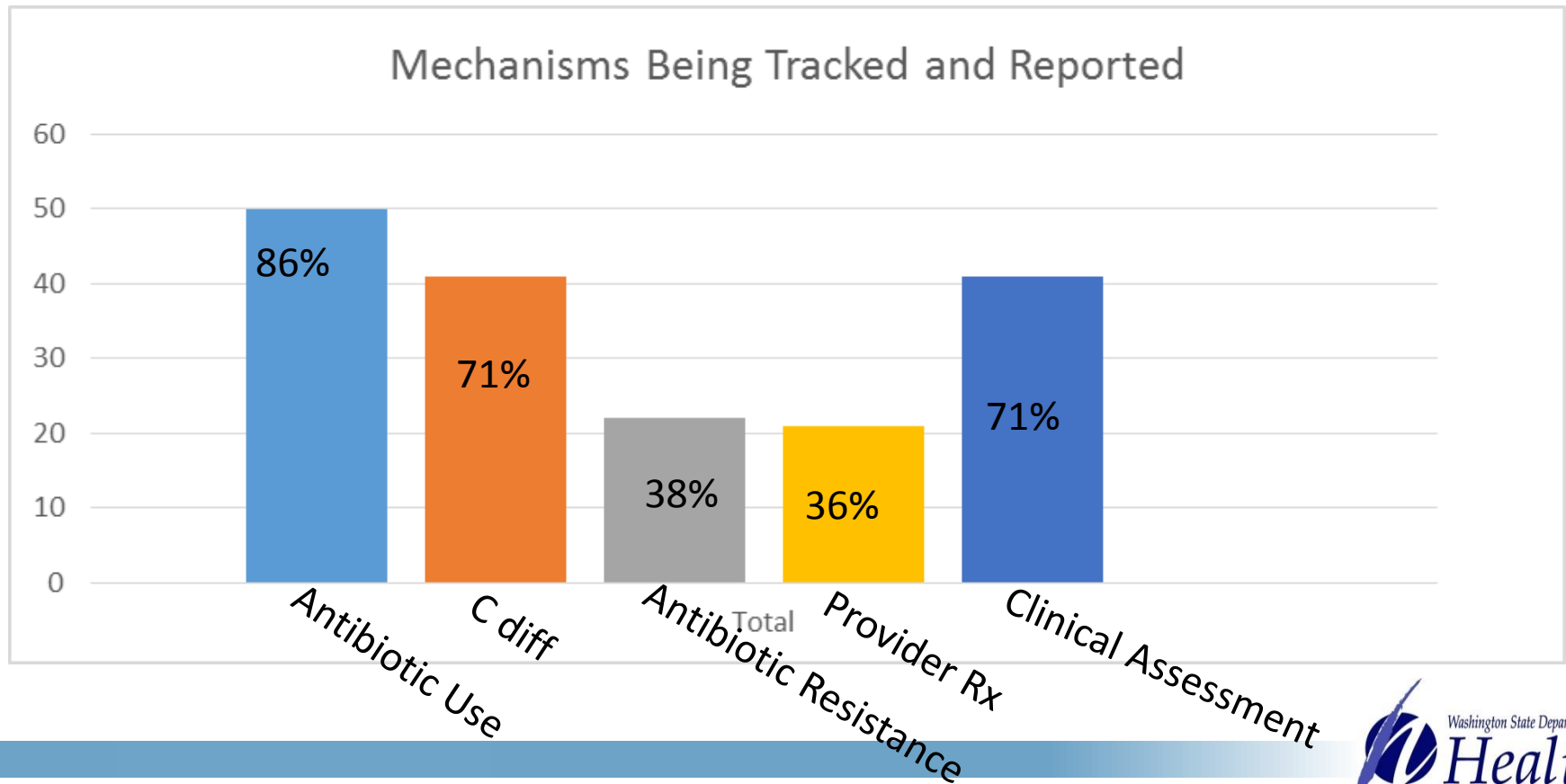
SNF Gap Survey— Tracking

- 59 (63%) monitor antibiotic use
- 64 (68%) monitor outcomes of antibiotic use



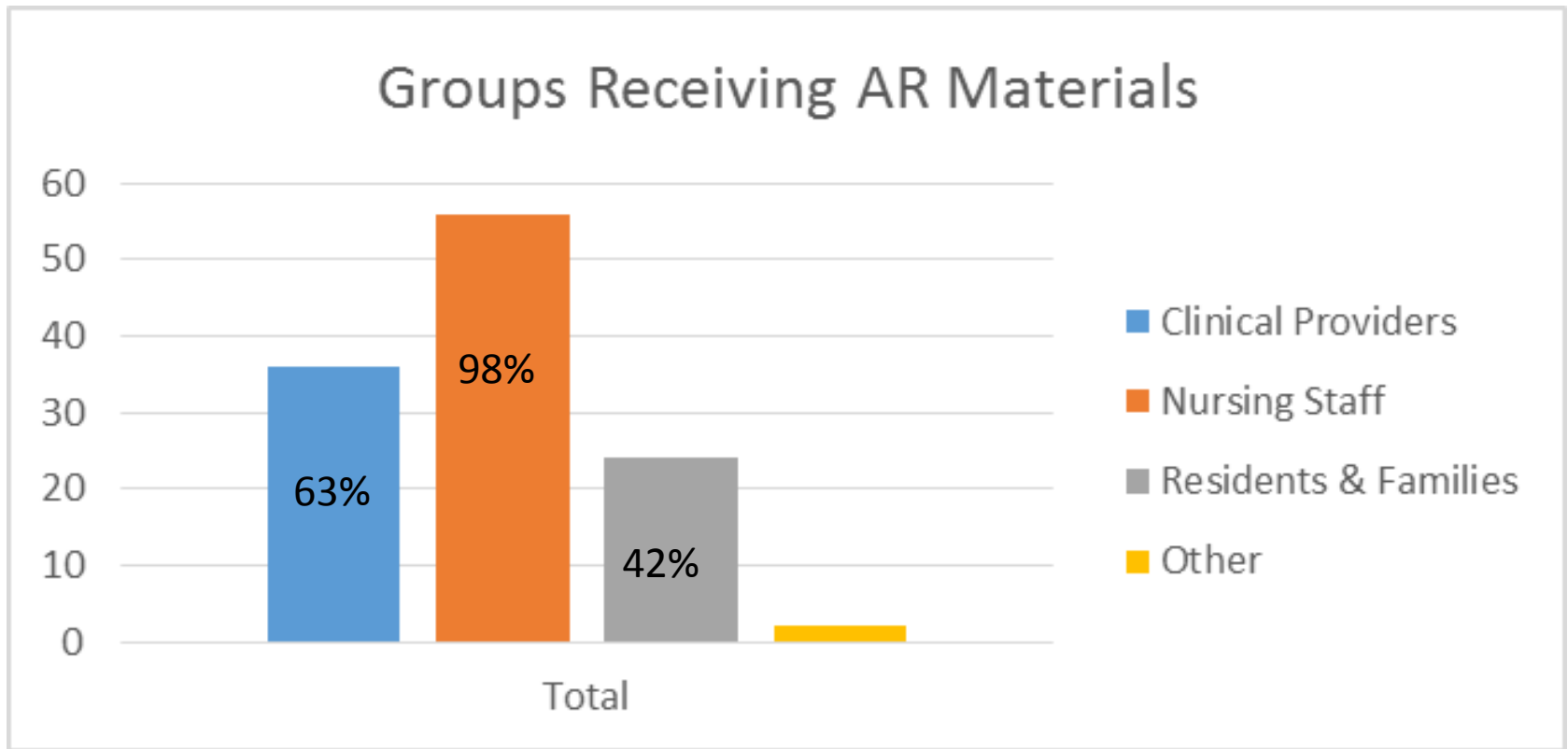
SNF Gap Survey— Reporting

- 58 (62%) routinely report AU and outcomes to providers and nursing staff



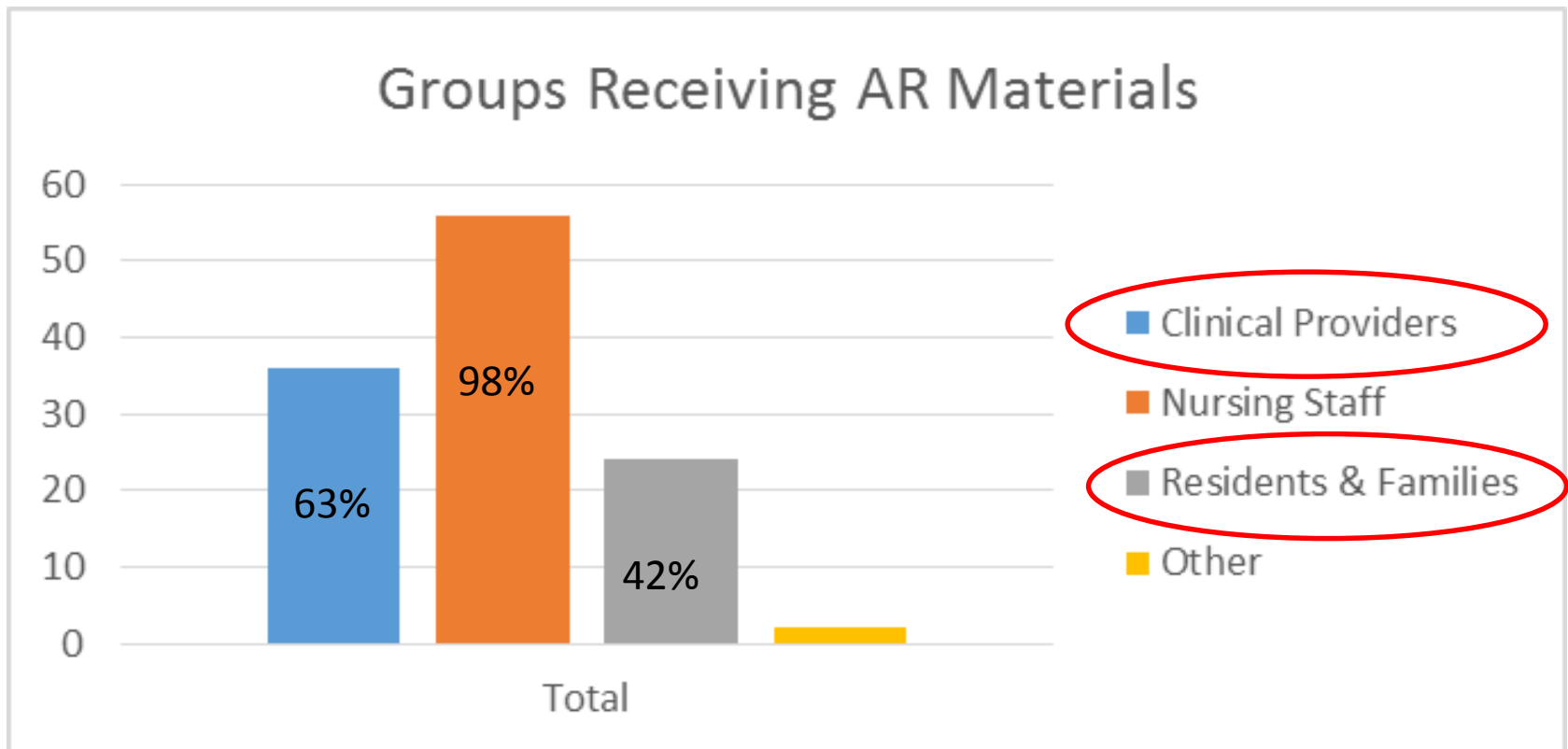
SNF Gap Survey— Education

- 57 (61%) provide AMS education



SNF Gap Survey— Education

- 57 (61%) provide AMS education



Gap survey



Current State Assessment



Jump Start Stewardship Workbook



JumpStart Stewardship



Implementing Antibiotic Stewardship in
Nursing Homes



Current State Assessment

- Show information for two different SNFs
- Discuss how and where to collect data
- Comment from experts on findings

Facility characteristics

Last Calendar Year or Last 12 months	Number	Number
Licensed Beds	100	97
Admissions	403	47
Resident days	30,409	33,590
Average daily census	83.31	92
Number of unique prescribers	4	2
Clinical pharmacists (hours per month)	Visits quarterly	480 ←
	Average Daily Census	Average Daily Census
Residents with indwelling urinary catheters	Current-20	12
Residents with tracheostomy	Current-11	8
Residents with tracheostomy on ventilator	Current-16	8
Pressure Injury (Stage II-IV, unstageable and DTI)	ADC for 2016 of # res with PI's = 7.25 ADC for 2016 of # of PI's for 2016= 19.67	23 4 2 total 29

Multi drug resistant organisms

Last Calendar Year or Last 12 months	Number	Number
<i>Clostridium difficile</i>		
Number of facility-onset <i>C. difficile</i> infections	11	2
Number of community-onset <i>C. difficile</i> infections	7	1
<i>Methicillin-Resistant Staphylococcus aureus (MRSA)</i>		
Number of non-duplicate MRSA isolates	CAI=7, HAI=1, Total=8	3
<i>Vancomycin-Resistant Enterococcus (VRE)</i>		
Number of non-duplicate VRE isolates	CAI=1, HAI=2, Total=3	0
<i>Multidrug-Resistant Gram-Negative Bacteria</i>		
Number of non-duplicate <i>Klebsiella species</i> isolates resistant to 3 rd generation cephalosporins* (Our CP-CRE was <i>Klebsiella p.</i> -not included in these numbers)	ESBL <i>Klebsiella pneumoniae</i> CAI=2, HAI=2, Total=4	1
Number of non-duplicate <i>Escherichia coli</i> isolates resistant to 3 rd generation cephalosporins*	ESBL <i>e. coli</i> CAI=5, HAI=2, Total=7	1
Number of non-duplicate <i>Pseudomonas aeruginosa</i> isolates resistant to 3 rd generation cephalosporins*	MDRO w/o ESBL: CAI=1, HAI=4, Total=5 ESBL <i>pseudomonas a.</i> : CAI=1, HAI=0, Total=1 Total of all=6	0
Number of non-duplicate <i>Acinetobacter baumannii</i> isolates resistant to 3 rd generation cephalosporins*	MDRO w/o ESBL: CAI=0, HAI=1, Total=1 ESBL <i>Acinetobacter b.</i> : CAI=1, HAI=0, Total=1 Total of all=2	0

*Third generation cephalosporins include ceftriaxone, cefotaxime, ceftazidime, cefpodoxime, and cefdinir

Core elements of Stewardship

LEADERSHIP SUPPORT

1. Can your facility demonstrate leadership support for antibiotic stewardship through one or more of the actions listed at right?

☒ YES

☐ NO

If yes, indicate which actions (select all that apply)

- ☐ Written statement of leadership support to improve antibiotic use
- ☐ Antibiotic stewardship duties included in Medical Director position description
- ☐ Antibiotic stewardship duties included in Director of Nursing position description
- ☒ Leadership monitors whether antibiotic stewardship policies are followed
- ☐ Antibiotic use and resistance data are reviewed in quality/performance improvement meetings

☒ YES

☐ NO

If yes, indicate which actions (select all that apply)

- ☐ Written statement of leadership support to improve antibiotic use
- ☐ Antibiotic stewardship duties included in Medical Director position description
- ☐ Antibiotic stewardship duties included in Director of Nursing position description
- ☐ Leadership monitors whether antibiotic stewardship policies are followed
- ☒ Antibiotic use and resistance data are reviewed in quality/performance improvement meetings

ACCOUNTABILITY

2. Has your facility identified one or more leaders for antibiotic stewardship activities?

☒ YES

☐ NO

If yes, indicate who is accountable for stewardship activities (select all that apply)

- ☐ Medical Director
- ☐ Director or Assistant Director of Nursing Services
- ☐ Consultant pharmacist
- ☐ Infection Prevention and Control Officer / Infection Preventionist
- ☐ Quality Improvement Officer
- ☐ Staff Development Coordinator
- ☐ Other: _____

☒ YES

☐ NO

If yes, indicate who is accountable for stewardship activities (select all that apply)

- ☒ Medical Director
- ☒ Director or Assistant Director of Nursing Services
- ☒ Consultant pharmacist
- ☒ Infection Prevention and Control Officer / Infection Preventionist
- ☒ Quality Improvement Officer
- ☒ Staff Development Coordinator
- ☒ Other: Environmental Services Manager
Charge Nurses

DRUG EXPERTISE

3. Does your facility have access to individual(s) with antibiotic stewardship expertise?

☒ YES

☐ NO

If yes, indicate who is accountable for stewardship activities (select all that apply)

- ☐ Consultant pharmacist
- ☐ Stewardship team at local hospital
- ☐ Infectious disease/stewardship consultant
- ☐ Medical Director
- ☐ Corporate support/nurse consultant
- ☐ Other: _____

☒ YES

☐ NO

If yes, indicate who is accountable for stewardship activities (select all that apply)

- ☐ Consultant pharmacist
- ☐ Stewardship team at local hospital
- ☒ Infectious disease/stewardship consultant
- ☐ Medical Director
- ☐ Corporate support/nurse consultant
- ☐ Other: _____

ACTIONS TO IMPROVE ANTIBIOTIC USE

<p>4. Does your facility have policies to improve antibiotic prescribing/use?</p>	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which policies are in place (select all that apply)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Requirement for prescribers to document a dose, duration, and indication for all antibiotic prescriptions <input type="checkbox"/> Facility approved-algorithm for assessing residents <input type="checkbox"/> Facility-approved algorithms for appropriate diagnostic testing (e.g., obtaining cultures) for specific infections <input type="checkbox"/> Facility-specific treatment recommendations or order sets for one or more infectious syndrome <input type="checkbox"/> Antibiotic use limited to agents listed on the medication formulary <input type="checkbox"/> Pre-approval required for certain antibiotics <input type="checkbox"/> Other: _____ 	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which policies are in place (select all that apply)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Requirement for prescribers to document a dose, duration, and indication for all antibiotic prescriptions <input checked="" type="checkbox"/> Facility approved-algorithm for assessing residents <input checked="" type="checkbox"/> Facility-approved algorithms for appropriate diagnostic testing (e.g., obtaining cultures) for specific infections <input type="checkbox"/> Facility-specific treatment recommendations or order sets for one or more infectious syndrome <input type="checkbox"/> Antibiotic use limited to agents listed on the medication formulary <input type="checkbox"/> Pre-approval required for certain antibiotics <input type="checkbox"/> Other: _____
<p>5. Has your facility implemented practices to improve antibiotic use?</p>	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which practices are in place (select all that apply)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Facility-approved algorithms or decision support tools are routinely used to assess residents suspected of having an infection (e.g., AHRQ UTI SBAR tool)-Have CAUTI and UTI algorithms, URI algorithm in development <input type="checkbox"/> Delirium assessment tool is routinely used for residents to aid in differentiating infectious from non-infectious causes of delirium <input type="checkbox"/> Staff routinely communicate antibiotic use, infection and colonization status when residents are transferred to/from other healthcare facilities-Frequency only yearly, and not facility-specific <input checked="" type="checkbox"/> Staff routinely use a local or facility-specific antibiogram to guide selection of an antibiotic treatment-in progress <input type="checkbox"/> Staff routinely review antibiotic orders in conjunction with culture results and an updated assessment of clinical symptoms within 72 hours of starting antibiotics ("antibiotic timeout") in order to determine whether de-escalation or stopping therapy is indicated <input type="checkbox"/> Staff routinely document clinical assessment with all antibiotic starts <input type="checkbox"/> Staff routinely document whether residents with suspected UTI have signs and symptoms that meet the updated <u>McGeer</u> surveillance definition for UTI <input type="checkbox"/> Staff routinely use antibiotic order sets for common infectious syndromes to improve antibiotic use Indicate for which condition(s): _____ <input type="checkbox"/> Other: _____ 	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which practices are in place (select all that apply)</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Facility-approved algorithms or decision support tools are routinely used to assess residents suspected of having an infection (e.g., AHRQ UTI SBAR tool) <input type="checkbox"/> Delirium assessment tool is routinely used for residents to aid in differentiating infectious from non-infectious causes of delirium <input checked="" type="checkbox"/> Staff routinely communicate antibiotic use, infection and colonization status when residents are transferred to/from other healthcare facilities <input type="checkbox"/> Staff routinely use a local or facility-specific antibiogram to guide selection of an antibiotic treatment <input checked="" type="checkbox"/> Staff routinely review antibiotic orders in conjunction with culture results and an updated assessment of clinical symptoms within 72 hours of starting antibiotics ("antibiotic timeout") in order to determine whether de-escalation or stopping therapy is indicated <input type="checkbox"/> Staff routinely document clinical assessment with all antibiotic starts <input type="checkbox"/> Staff routinely document whether residents with suspected UTI have signs and symptoms that meet the updated <u>McGeer</u> surveillance definition for UTI <input type="checkbox"/> Staff routinely use antibiotic order sets for common infectious syndromes to improve antibiotic use Indicate for which condition(s): _____ <input type="checkbox"/> Other: _____

ACTIONS TO IMPROVE ANTIBIOTIC USE (continued)

<p>6. Does your consultant pharmacist support antibiotic stewardship activities?</p> <p>Currently working with pharmacy manager and consultant pharmacist on this.</p>	<p><input type="checkbox"/> YES</p> <p><input checked="" type="checkbox"/> NO</p>	<p>If yes, indicate activities performed by the consultant pharmacist (select all that apply)</p> <p><input type="checkbox"/> Reviews antibiotic courses for appropriateness of administration and/or indication</p> <p><input type="checkbox"/> Establishes standards for clinical/laboratory monitoring for adverse drug events from antibiotic use</p> <p><input type="checkbox"/> Reviews microbiology culture data to assess and guide antibiotic selection</p> <p>If yes, how often do pharmacy consults occur?</p> <p><input type="checkbox"/> Monthly</p> <p><input type="checkbox"/> Weekly</p> <p><input type="checkbox"/> On antibiotic order</p> <p><input type="checkbox"/> Other: Quarterly</p>	<p><input checked="" type="checkbox"/> YES</p> <p><input type="checkbox"/> NO</p>	<p>If yes, indicate activities performed by the consultant pharmacist (select all that apply)</p> <p><input checked="" type="checkbox"/> Reviews antibiotic courses for appropriateness of administration and/or indication</p> <p><input type="checkbox"/> Establishes standards for clinical/laboratory monitoring for adverse drug events from antibiotic use</p> <p><input type="checkbox"/> Reviews microbiology culture data to assess and guide antibiotic selection</p> <p>If yes, how often do pharmacy consults occur?</p> <p><input checked="" type="checkbox"/> Monthly</p> <p><input type="checkbox"/> Weekly</p> <p><input type="checkbox"/> On antibiotic order</p> <p><input type="checkbox"/> Other: _____</p>
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TRACKING: MONITORING ANTIBIOTIC PRESCRIBING, USE, AND RESISTANCE

<p>7. Does your facility monitor one or more measures of antibiotic use?</p>	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which of the following are being tracked (select all that apply)</p> <p><input checked="" type="checkbox"/> Adherence to clinical assessment documentation (signs/symptoms, vital signs, physical exam findings)</p> <p><input checked="" type="checkbox"/> Adherence to prescribing documentation (dose, duration, indication)</p> <p><input type="checkbox"/> Adherence to facility-specific treatment recommendations</p> <p><input type="checkbox"/> Regular point-prevalence surveys of antibiotic use</p> <p><input type="checkbox"/> Number new antibiotic starts per 1,000 resident-days</p> <p><input type="checkbox"/> Number antibiotic days of therapy per 1,000 resident-days (all antibiotic or by select antibiotic class)</p> <p><input type="checkbox"/> Other: _____</p>
<p>8. Does your facility monitor one or more outcomes of antibiotic use?</p>	<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which of the following are being tracked (select all that apply)</p> <p><input checked="" type="checkbox"/> Monitors rates of <i>C. difficile</i> infection</p> <p><input checked="" type="checkbox"/> Monitors rates of antibiotic-resistant organisms</p> <p><input type="checkbox"/> Monitors rates of adverse drug events due to antibiotics</p> <p><input type="checkbox"/> Other: _____</p>

NG ANTIBIOTIC PRESCRIBING, USE

<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which of the following are being tracked (select all that apply)</p> <p><input checked="" type="checkbox"/> Adherence to clinical assessment documentation (signs/symptoms, vital signs, physical exam findings)</p> <p><input checked="" type="checkbox"/> Adherence to prescribing documentation (dose, duration, indication)</p> <p><input type="checkbox"/> Adherence to facility-specific treatment recommendations</p> <p><input checked="" type="checkbox"/> Regular point-prevalence surveys of antibiotic use</p> <p><input checked="" type="checkbox"/> Number new antibiotic starts per 1,000 resident-days</p> <p><input type="checkbox"/> Number antibiotic days of therapy per 1,000 resident-days (all antibiotic or by select antibiotic class)</p> <p><input type="checkbox"/> Other: _____</p>
<p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	<p>If yes, indicate which of the following are being tracked (select all that apply)</p> <p><input checked="" type="checkbox"/> Monitors rates of <i>C. difficile</i> infection</p> <p><input type="checkbox"/> Monitors rates of antibiotic-resistant organisms</p> <p><input type="checkbox"/> Monitors rates of adverse drug events due to antibiotics</p> <p><input type="checkbox"/> Other: _____</p>

REPORTING TO STAFF ON IMPROVING ANTIBIOTIC USE AND RESISTANCE

9. Does your facility provide facility-specific reports on antibiotic use and outcomes to clinical providers and nursing staff?

☒ YES

☐ NO

If yes, indicate which of the following are being tracked (select all that apply)

- ☒ Measures of antibiotic use at the facility
- ☒ Measures of outcomes related to antibiotic use (i.e., *C. difficile* rates)
- ☒ Report of facility antibiotic susceptibility patterns (within last 18 months)
- ☒ Personalized feedback on antibiotic prescribing practices (to clinical providers)
- ☒ Monitor documentation of clinical assessments
- ☐ Other: _____

☒ YES

☐ NO

If yes, indicate which of the following are being tracked (select all that apply)

- ☒ Measures of antibiotic use at the facility
- ☒ Measures of outcomes related to antibiotic use (i.e., *C. difficile* rates)
- ☐ Report of facility antibiotic susceptibility patterns (within last 18 months)
- ☐ Personalized feedback on antibiotic prescribing practices (to clinical providers)
- ☐ Monitor documentation of clinical assessments
- ☐ Other: _____

EDUCATION

10. Does your facility provide educational resources and materials about antibiotic resistance and opportunity for improving antibiotic use?

☒ YES

☐ NO

- If yes, indicate which groups receive these resources (select all that apply). Clinical providers (e.g., MDs, NPs, PAs, PharmDs)
- ☒ Nursing staff (e.g., RNs, LPNs, CNAs)
 - ☐ Residents and families
 - ☐ Other: _____

If yes, how often does your facility provide education on antibiotic stewardship? (select all that apply)

- ☐ At hire
- ☒ Annually
- ☐ Quarterly
- ☐ Monthly
- ☒ As Needed

☒ YES

☐ NO

- If yes, indicate which groups receive these resources (select all that apply). Clinical providers (e.g., MDs, NPs, PAs, PharmDs)
- ☒ Nursing staff (e.g., RNs, LPNs, CNAs)
 - ☐ Residents and families
 - ☐ Other: _____

If yes, how often does your facility provide education on antibiotic stewardship? (select all that apply)

- ☒ At hire
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- ☒ Quarterly
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- ☒ As Needed

This questionnaire was adapted from the CDC's *Core Elements of Antibiotic Stewardship Programs in Nursing Homes* (2015).

Most common infectious clinical syndromes (past 12 months)

Type	#	Abx 1	Abx 2	Abx 3
UTI	26	Nitro-furan	Amox-clav	Bactrim
Resp (incl PNA, VAP, ILI)	36	Pip-taz	Cefe-pime	Vanco
SSTI	14	Cefa-lexin	Bactrim cefazolin minocycline meropenem levoflox	
GI	12	Flagyl	Vanco-mycin	

Type	#	Abx 1	Abx 2	Abx 3
UTI	30+	Cipro	Sulfa-methox	Amox-clav
URI	25+	Ceftriax	Levo-flox	Doxy-cycline
PNA	10+	Ceftriax	Levo-flox	Amox-clav
Cellulitis	30+	Sulfa-methox	Amox	Cipro-flox

Most often prescribed antibiotics

IV Antibiotic	Utilization Last Calendar Year (grams)	Cost of Utilization Last Calendar Year	Notes	IV Antibiotic	Utilization Last Calendar Year (grams)
<u>Zosyn</u>	Given more time, I may be able to obtain this info from pharmacy. Could not obtain reasonably at this time.		Average cost of \$13.95/day	Rocephin	unknown
<u>Cefepime</u>			Average cost of \$7.70/day	Vancomycin	unknown
Vancomycin			Average cost of \$5.20/day		

PO Antibiotic	Utilization Last Calendar Year (grams)	Cost of Utilization Last Calendar Year	Notes	PO Antibiotic	Utilization Last Calendar Year (grams)
<u>Macrobid</u>	Given more time, I may be able to obtain this info from pharmacy. Could not obtain reasonably at this time.		Average cost of \$1.00/day	Sulfamethoxazole	unknown
Bactrim			Average cost of \$0.15/day	Levofloxacin	unknown
Augmentin			Unknown cost/day	Ciprofloxacin	unknown
Keflex			Unknown cost/day	Amox TR-K CLV	unknown
Flagyl			Unknown cost/day	Cephalexin	unknown
<u>PO Vanco</u>			Unknown cost/day	Amoxicillin	

Barriers to improving antibiotic use

- Insufficient tracking software
- Incomplete symptom documentation or non-specific indication (ex. “infection”)
- Excessive use of cultures
- Insistent family members
- Antibigram not timely or facility-specific
- Lack of input from consultant pharmacist
- Provider fear of litigation
- Lack of provider confidence in staff ability to identify early signs of sepsis
- Idiopathic leukocytosis among ventilated patients
- No current specific surveillance criteria for VAP in LTCF
- Bed-lock (how to meet needs of community while following cohorting standards)

New EQuIP Resources

- Archived recording of webinars
- Jump Start Stewardship Workbook
- EQuIP enrollment form

Coming soon.....

Enrollment Form

- Formal participation encouraged (not mandatory)
- Signed enrollment form by facility leadership
- Track facility self-assessment
- Opportunity to participate in small group collaborative projects
 - Provide contact info
 - Share data with small group
 - Establish ASP & be recognized on DOH Honor Roll for Stewardship



Washington State Participant Agreement

EQUIP for Long Term Care is a professional development program developed in partnership with the Washington and Idaho state and local health departments, Quality Health, and local chapters of the Association for Professionals in Infection Control (APIC) to equip staff in nursing homes to improve quality and safety of residents through education, mentorship, collaborative learning, and data sharing. The program is offered to participating facilities in Washington and Idaho at no charge.

As a participant in the program, your facility will receive the following:

- Web-based education and training on antimicrobial stewardship and infection prevention and control specifically tailored to the needs of long term care facilities
- Access to expert consultants on antimicrobial stewardship and infection prevention and control
- Customizable tools, templates, sample policies and other resources to support antimicrobial stewardship and infection prevention and control activities in your nursing home
- Opportunities for networking and collaboration among peers in Washington and Idaho

There are two ways to participate in EQUIP for LTC:

- 1) Staff from your facility can call in to webinars and get access to tools and resources.
- 2) Your facility can formally enroll in the program and commit to certain requirements:
 - Provide current contact information for infection prevention, quality management staff and stewardship leads.
 - Attend live and recorded web-based training modules
 - Participate in facilitated peer-to-peer, collaborative learning and improvement activities
 - Share outcome data from quality improvement projects with other members of the small group.
 - Complete a facility self-assessment upon enrollment in the program
 - Complete an annual facility self-assessment annually
 - Achieve criteria to be recognized on the DOH Honor Roll for Stewardship in Nursing Homes.
 - o Criteria include meeting CDC 7 core elements for stewardship in nursing homes.

By signing below, you attest to understanding the expectations and committing to participation in the **EQUIP Long Term Care** program.

Signed Nursing Home Name: _____ City: _____

Executive Signature: _____ Date: _____

Executive Name (print): _____



Before next EQulP webinar on March 22

- Register for webinar series
- Share the registration link with your colleagues
- Enrollment form and Jump Start Stewardship Workbook will be emailed to all registrants when posted on DOH website
- Please send suggestions or requested topics to marisa.dangeli@DOH.wa.gov

Q & A

