Infection Preventionist Lunch and Learn

October 8, 2024

WISCONSIN DEPARTMENT *of* HEALTH SERVICES

Series Objectives

- Encourage learning, growth, and networking
- Provide non-regulatory education and information
- Discuss topics relevant to new infection preventionists (IPs)

Antimicrobial Stewardship for the Infection Preventionist

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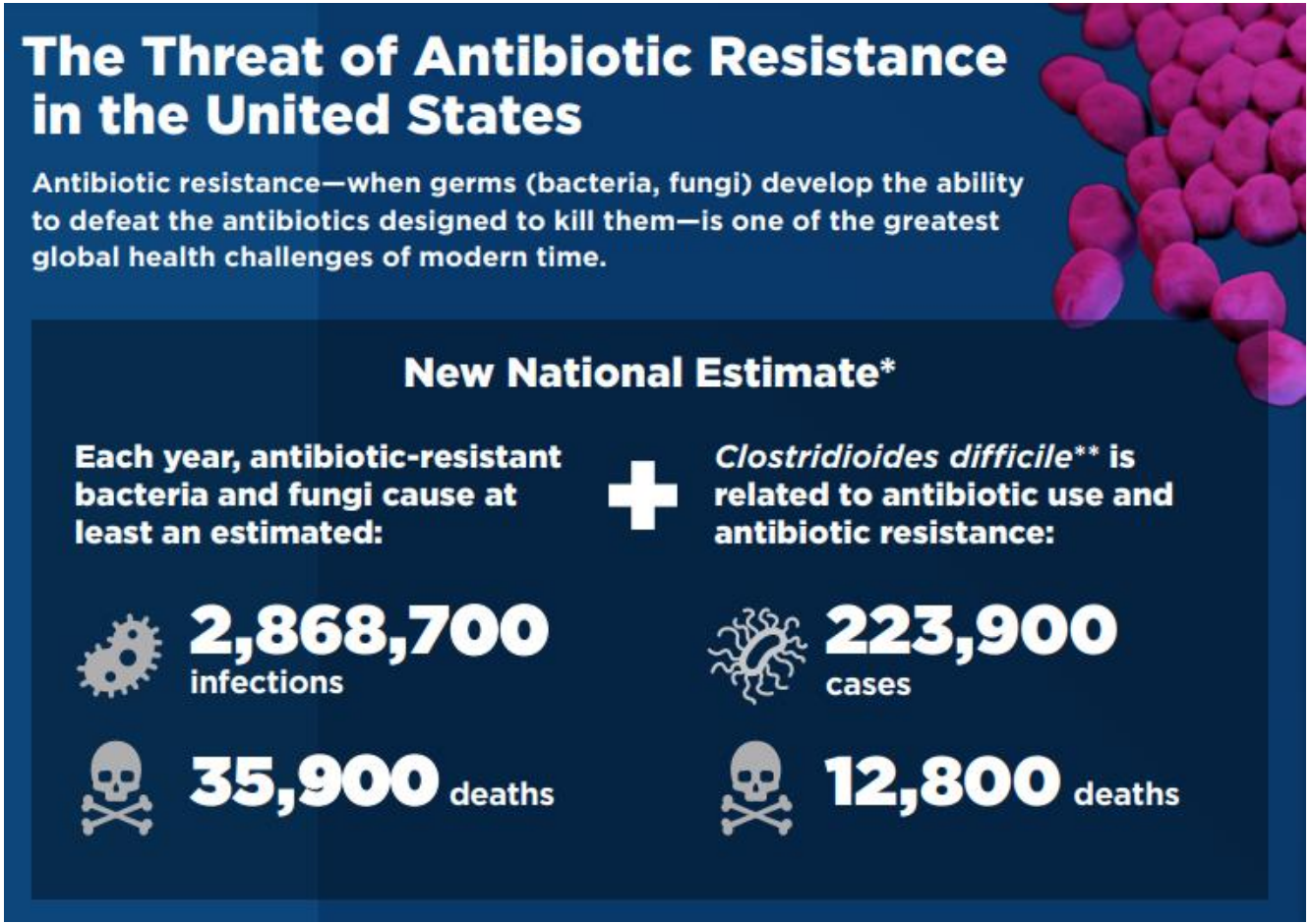
10/08/2024

WISCONSIN DEPARTMENT of HEALTH SERVICES

Agenda

- Background
- How infection prevention and antimicrobial stewardship (AS) can work together
- Wisconsin Department of Health Services (DHS) AS activities
- Questions

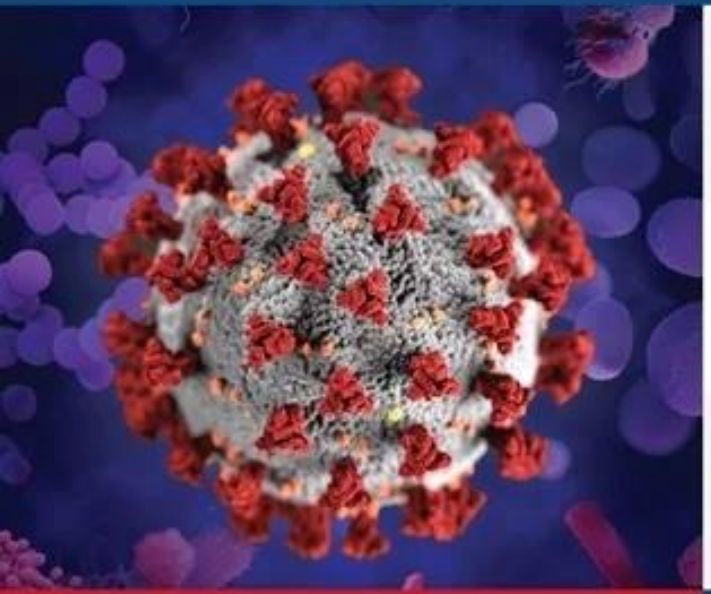
Background



Source: [CDC (Centers for Disease Control and Prevention) Antibiotic Resistance Threats in the United States, 2019]

COVID-19 CREATED A PERFECT STORM

The U.S. lost progress combating antimicrobial resistance in 2020



↑15% Antimicrobal-resistant infections and deaths increased in hospitals in 2020.

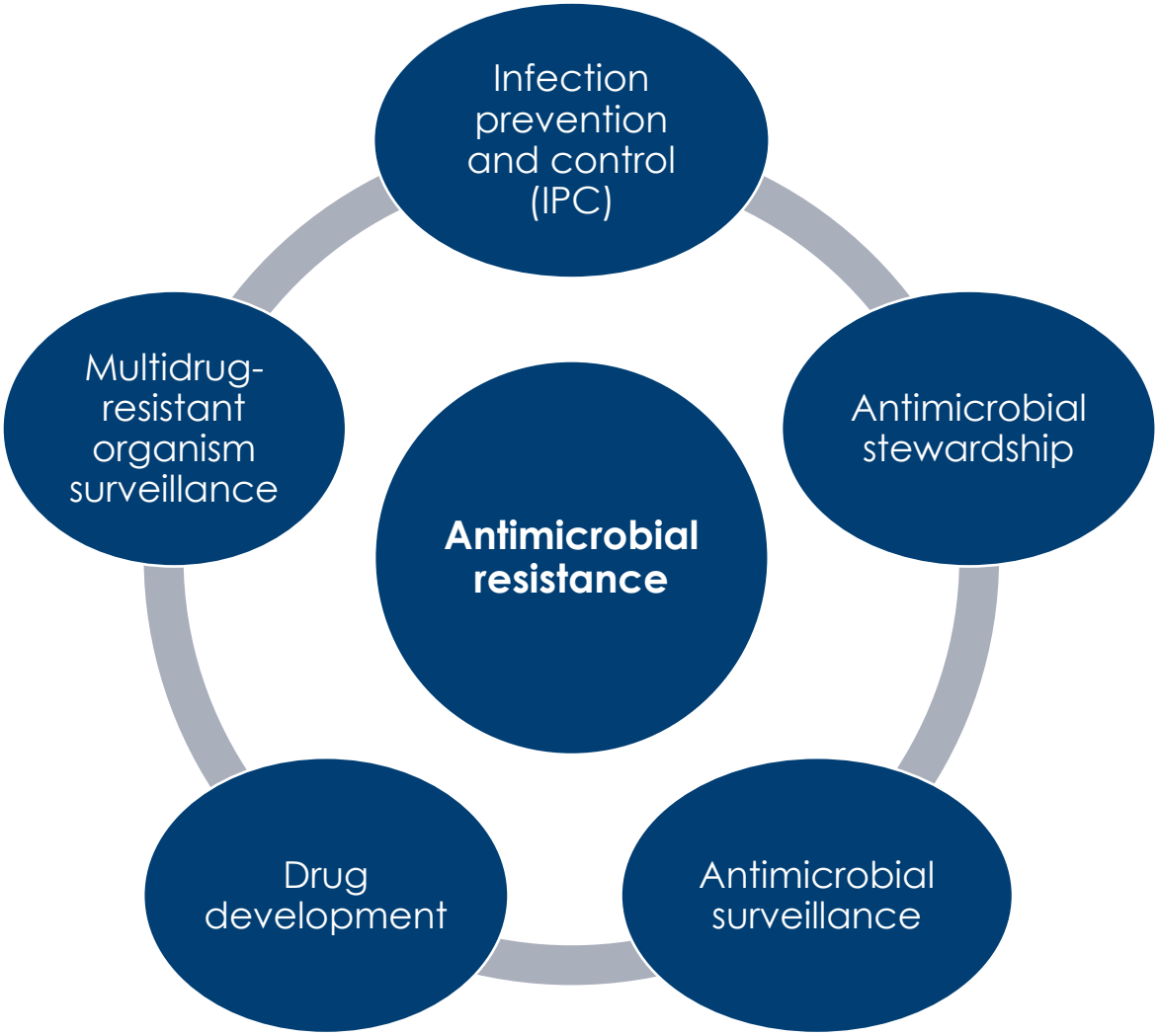
~80% Patients hospitalized with COVID-19 who received an antibiotic March-October 2020.

Delayed or unavailable data, leading to resistant infections spreading undetected and untreated.

INVEST IN PREVENTION.

Setbacks to fighting antimicrobial resistance can and must be temporary.

Source: [CDC COVID-19 & Antimicrobial Resistance]


Infection prevention and control (IPC)
Antimicrobial stewardship
Antimicrobial surveillance
Drug development
Multidrug-resistant organism surveillance
Antimicrobial resistance

Antimicrobial Stewardship

Effort to measure and improve how antibiotics are prescribed by clinicians and used by patients

Action in Response to AR

- CDC published Core Elements of Antibiotic Stewardship
- National Quality Partners Playbook
- CMS requirements for participation rule (2016)
- Joint Commission Antimicrobial Stewardship standard

Infection Prevention and Antimicrobial Stewardship

A Shared Common Goal

CDC Core Elements of Hospital Antibiotic Stewardship

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

Leadership Commitment

Dedicate necessary human, financial, and IT resources.

- IP leaders collaborate with AS leads
- Reduce redundant initiatives
- Share resources

Accountability

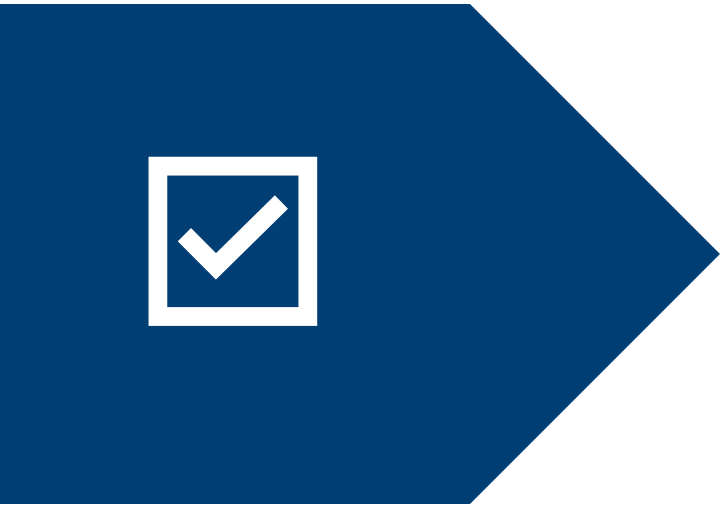
Appoint leaders responsible for program management and outcomes.

- AS programs are led by a variety of health care professional
- Engage leaders and foster collaboration

Pharmacy Expertise

Appoint a pharmacist to help lead implementation efforts to improve antibiotic use.

Action



Implement interventions to improve antibiotic use.

- Prospective audit and feedback
- Preauthorization

Overlap:

- Leverage nursing supporting role
- Facilitate interprofessional discussion of AS needs

Tracking

Monitor antibiotic prescribing, impact of interventions, and other important outcomes, like *C. difficile* and resistance patterns.

Overlap and collaboration:

- National Healthcare Safety Network (NHSN) reporting
- AR surveillance

Reporting

Regularly report information on antibiotic use and resistance to prescribers, pharmacists, nurses, and hospital leadership.

Overlap:

- CDI feedback
- Share dissemination pathways

Education

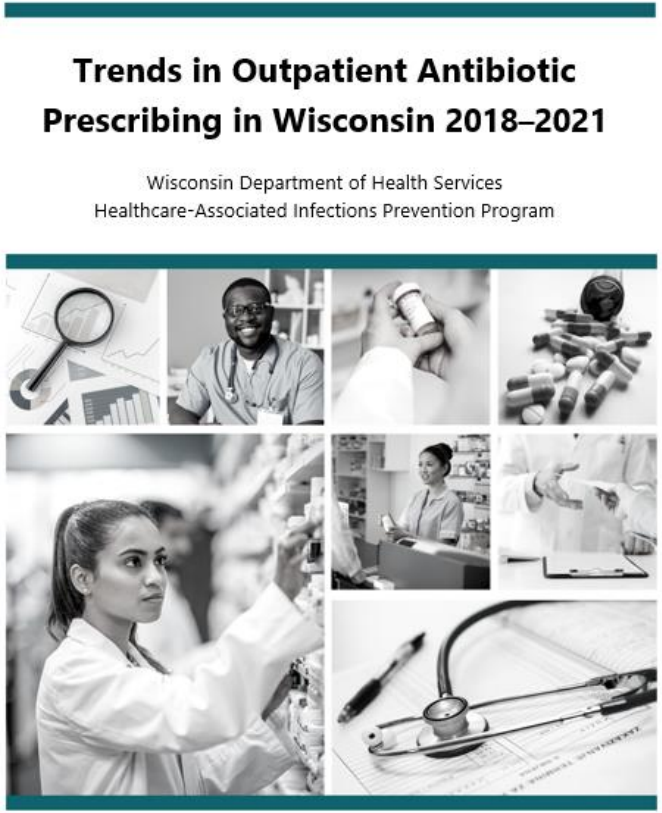
Educate prescribers, pharmacists, nurses, and patients about adverse reactions from antibiotics, antibiotic resistance, and optimal prescribing.

Overlap:

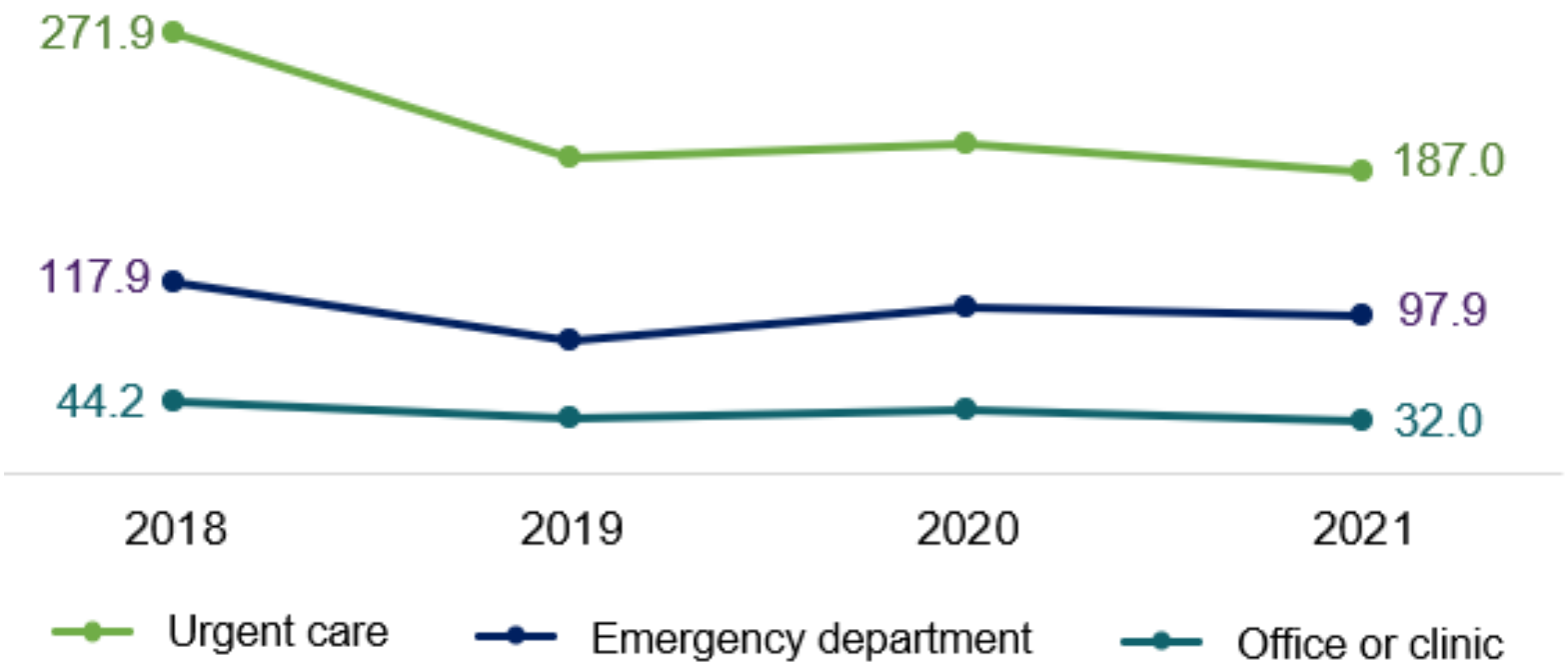
- Team up to combine your messaging!
- Diagnostic stewardship (urine culture practices)

DHS Antimicrobial Stewardship Activities

Trends in Outpatient Antibiotic Prescribing in Wisconsin 2018–2021



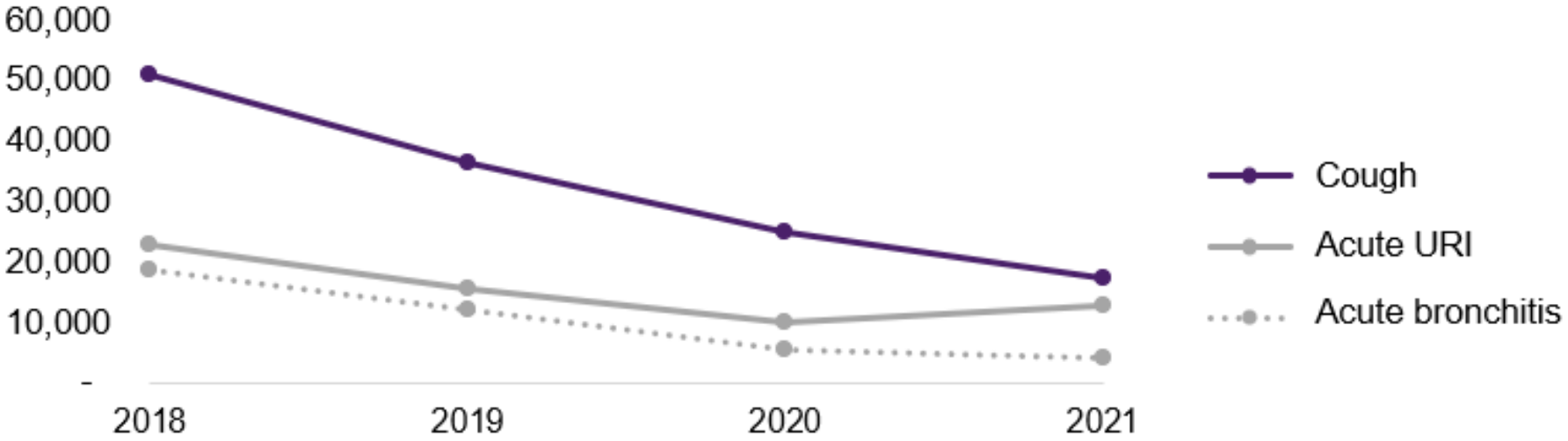
Antibiotic Visits by Site of Care



Examples Conditions by Antibiotic Indication Tier

Tier 1 Antibiotics are almost always indicated.	Tier 2 Antibiotics are sometimes indicated.	Tier 3 Antibiotics are never indicated.
• Urinary tract infection • Streptoccocal pharyngitis • Pneumonia • Cellulitis • Pyelonephritis	• Acute pharyngitis • Acute sinusitis • Dysuria • Chronic sinusitis • Otitis media • Cutaneous abscess	• Acute upper respiratory infection • Cough • Acute bronchitis

Antibiotic Prescriptions associated with Tier 3 diagnoses*, 2018–2021



*For which antibiotics are not indicated

Outpatient Antibiotic Use Dashboards

Data Summary (2) - All Diagnoses

Data from the 58 organizations in this report comprise the statewide totals used as benchmarks.

Service Dates: (All)

Diagnoses: All Diagnoses

2023 claims January - June only

Statewide Totals

	ABX Rate	ABX Visits	Total Visits	Clinicians
2018	87	868,720	9,975,307	15,078
2019	76	816,151	10,676,229	15,779
2020	68	557,672	8,194,137	16,084
2021	58	722,971	12,373,880	16,691
2022	64	763,455	11,934,243	17,010
2023	73	471,688	6,434,920	15,527
Total	70	4,200,657	59,588,716	20,666

Clinician Categories	ABX Rate	ABX Visits	Total Visits	Clinicians
General Practitioner	56	1,122,663	20,213,019	4,589
NP or PA	131	1,726,198	13,220,241	6,801
Pediatrics	82	360,088	4,365,534	839
Emergency Medicine	128	414,080	3,247,095	978
Specialty Medicine	15	144,233	9,516,613	3,661
Surgical Specialty	43	297,574	6,990,149	2,738
Trainee	67	135,821	2,036,065	1,060
Total	70	4,200,657	59,588,716	20,666

Place of Service	ABX Rate	ABX Visits	Total Visits	Clinicians
Emergency Department	146	807,809	5,522,662	15,615
Office/Clinic	59	3,132,729	52,982,212	20,635
Urgent Care	240	260,119	1,083,842	6,895
Total	70	4,200,657	59,588,716	20,666

Org ID: O1001

	ABX Rate	ABX Visits	Total Visits	Clinicians
2018	84	23,226	278,155	383
2019	73	17,914	246,496	394
2020	70	12,118	172,204	401
2021	59	17,209	293,791	421
2022	70	19,510	280,495	413
2023	82	11,894	145,067	369
Total	72	101,871	1,416,208	523

Clinician Categories	ABX Rate	ABX Visits	Total Visits	Clinicians
General Practitioner	63	20,405	324,796	106
NP or PA	144	44,852	311,792	161
Pediatrics	82	5,632	68,383	15
Emergency Medicine	112	12,063	107,349	29
Specialty Medicine	17	4,761	279,343	88
Surgical Specialty	42	8,578	202,030	86
Trainee	46	5,580	122,515	38
Total	72	101,871	1,416,208	523

Place of Service	ABX Rate	ABX Visits	Total Visits	Clinicians
Emergency Department	134	18,164	135,522	400
Office/Clinic	65	82,433	1,277,575	522
Urgent Care	410	1,274	3,111	69
Total	72	101,871	1,416,208	523

Redesigning
Antibiotic
Information
Systems
In
Nursing Homes

Questions?

Feel free to reach out!

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