Nursing Facility Payment Review and Redesign

Building Block #6: Case Mix, Equity and Demographics

1.28.2021

Today's Agenda

- Overview
- Recap
  - ➢ Updated and Additional Analyses
  - ➢ Questions and Comments on Capacity
- Case Mix, Equity and Demographics
  - ➢ Analysis of Emerging Policy Priorities
    - ➢ By payer
    - ➢ By race
  - ➢ Analytic Plan
- Questions and comments on Analysis
- Next steps

Purpose Statement

HFS proposes a structured and transparent approach to develop, deliberate, adopt and implement nursing home payments to achieve improved outcomes and increased accountability with an emphasis on patient-centered care. HFS believes the rate mechanism, funding model, assessment, quality metrics, and staffing requirements can and should be updated in conjunction with any new or additional appropriated funding. Further, additional federal funding should be captured to improve these areas through an increase in the current nursing home bed tax.

Steps in the Review and Redesign Process

Building blocks in a comprehensive NF payment:

- Staffing (3 meetings)

- Quality (2 meetings)

- Physical Infrastructure (2 meetings)

- Rebalancing (2 meetings)

- Capacity (2 meetings)

- Case Mix, Equity and Demographics (2+ meetings)

- Modeling (multiple meetings)

> Note: COVID has had a profound impact on long term care. Infection control is assumed to be an integral component of each building block.

Original Objectives and Principles for Reform

- Transparent, outcome driven, patient-centered model with increased accountability

- Transition away from RUGS to federal PDPM case-mix nursing component

- Modify the support and capital rate into a set base rate similar to Medicare non-case-mix rate

- End the $1.50 bed fee and increase the occupied bed assessment to create a single assessment program which maximizes federal revenue

- Directly tie funding/rates/incentives to demonstrable and sustained performance on key quality reporting metrics

- Documentation to support, review and validation of level of care coding and appropriateness, outliers, actual patient experiences, etc.

- Align regulation and payment incentives to the same goals

- Ensure appropriate incentives for community placement, including both uniform and MCO-specific incentives

- Recalibrate/rethink payment for nursing home infrastructure to support emerging vision for the industry in the wake of the COVID-19 crisis, including single-occupancy rooms, certified facilities

- Integrate emerging lessons and federal reforms related to the COVID pandemic

- Improved cooperation, support and follow up, data sharing and cross-agency training from other agencies (OIG, IDPH, DoA)

- Build in flexibility to evolve as the industry evolves and establish ongoing channels of communication for new, proposed, or upcoming changes

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Therapy in RUGS v. PDPM

| **Assessment of need for therapy** | **Impact on payment** |

RUGS-based payment

Uses initial 5-day and quarterly MDS
Based on the number of days & minutes coded and ADL function there are two ways to meet RUGs Rehab Category:
- ≥ 5 days AND ≥150 minutes in any therapy; or
- 3 days AND ≥45 minutes in any therapy AND ≥ 2 restorative interventions

- Raises facility's CMI with 2Q lag
- Facility's *provision* of therapy factors directly into future payment

PDPM-based payment

Uses initial 5-day MDS
1. Determine the resident's primary diagnosis clinical category using ICD-10 codes AND whether to use default diagnosis instead. Determine whether the resident received a major joint replacement, spinal surgery, orthopedic surgery, or significant non-orthopedic surgical during prior inpatient stay (Several options)
2. Determine the resident's PT Clinical category (11 options)
3. Calculate the function score using items in GG
4. Determine the resident's PT group using case mix table

- *Need* for therapy affects the CMI-based *prospective* payment
- Facility's provision of care does not factor directly into payment
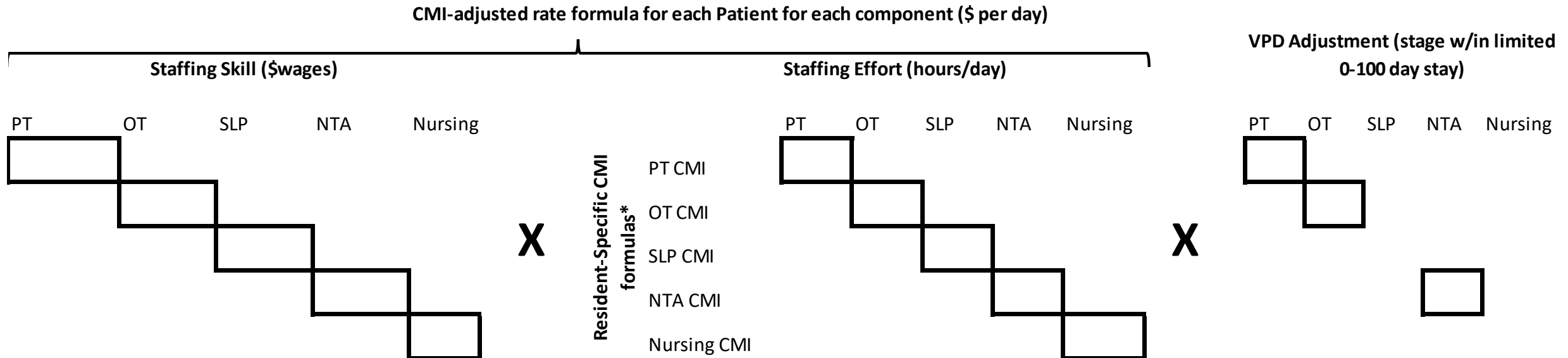
New Medicare PDPM Staffing Payment Methodology
(per diem for each resident)

How to read this diagram…

Each solid-line box represents a unique patient-type + staff-type combination that contributes to rate development or compliance

CMI-adjusted rate formula for each Patient for each component ($ per day)

VPD Adjustment (stage w/in limited 0-100 day stay)

Staffing Skill ($wages)

Staffing Effort (hours/day)

Resident-Specific CMI formulas*

PT CMI
OT CMI
SLP CMI
NTA CMI
Nursing CMI

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Data Sources for Each PDPM Case Mix Index

	Clinical Category (ICD-10 mapped to 4 PT&OT Categories)	Functional Score (sum of ten GG item scores)	Acute Neurologic Condition	SLP-Related Comorbidity or Cognitive Impairment	Mechanically-altered Diet	Swallowing Disorder	RUGS-IV Category	NTA Comorbidity Score
PT CMI	X	X						
OT CMI	X	X						
SLP CMI			X	X	X	X		
NTA CMI								X
Nursing CMI		X					X	

CMS' Overall STAR Rating

Inspections

Staffing

Quality

+1 Star if:
- Staffing is 4 or 5 Stars; AND
- Staffing stars > Inspection Stars

+1 Star if:
- Quality is 5 Stars; AND
- A Staffing Star wasn't already added to a 1-Star Inspection Rating

0 Stars if:
- Staffing is 2 or 3 Stars; OR
- Staffing Stars <= Inspection Stars

Health Inspection Stars

+

0 Stars if:
- Quality is 2 - 4 Stars;

+

=

Overall STAR Rating (1-5)

-1 Star if:
- Staffing is 1 Star

-1 Star if:
- Quality is 1 Star

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Developing and Using Outcomes

Implications for new metrics:

- We have **less information** about them, including validation of their impact, an explanation of that impact, and the mechanisms for moving the needle
- NFs also know less, and face **risk** when spending money to move the needle
- In addition, NFs face the economic **incentive to wait** for others to solve the puzzle
- Risk and this '**tragedy of the commons**' predictably lead to collective under-investment
- So what approach should the state take with new metrics?

Incent

Define

Collect

Inform

Measure

Context

Impact

Explanation

Mechanisms
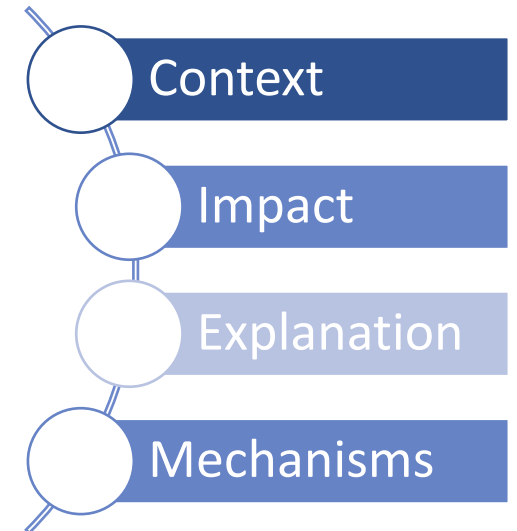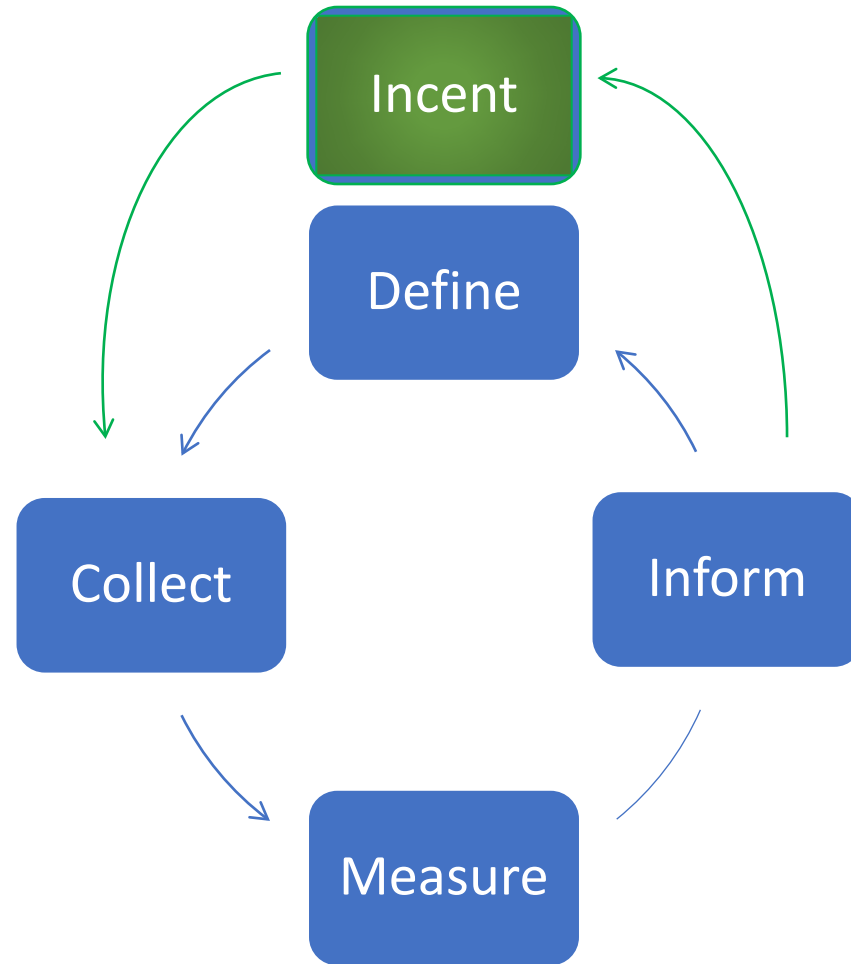
Evaluating an Outcome Measure
Examples of Policy Objectives

Outcome Maturity	Example policy goals in incentive design
New	Coordinate/motivate broad initial investments by NFs
	Learn from investments and varying NF initiatives
Mixed	Improve overall (and top) performance
	Motivate rapid improvement & investment by low-performers
Mature	Maintain target performance; prevent degradation across many outcomes
	Bring all performance up at margin?
	Eliminate remaining under-performance

Matching Available Levers to Outcomes
Key Questions

NF Lever*	Description	New Outcomes	Mixed Outcomes	Mature Outcomes
Payment Incentive	Dollar or percentage adjustments to (part of) the per diem	Are payment incentives flexible enough to support NF experimentation?		What is the remaining potential for improvement?
MCO LTC placement	Influence or incent community v. NF 'A' v. NF 'B' placement		What is the MCOs' role in managing NF/LTC outcomes?	
CON	Requirements for new investment		Which types of outcomes might fit this lever?	
Regulatory minimums	$ Penalties		Which outcomes work best here? Would regulations compliment payment incentives?	
Medicaid participation	Transition of all current Medicaid residents		Would any such outcome rise to this level of importance?	Which outcome(s) might rise to this level of importance?
Licensure	Transition of all current residents		Would any such outcome rise to this level of importance?	Which outcome(s) might rise to this level of importance?

*Not a characterization of current Illinois policy. Some options would require policy changes to be deployed.
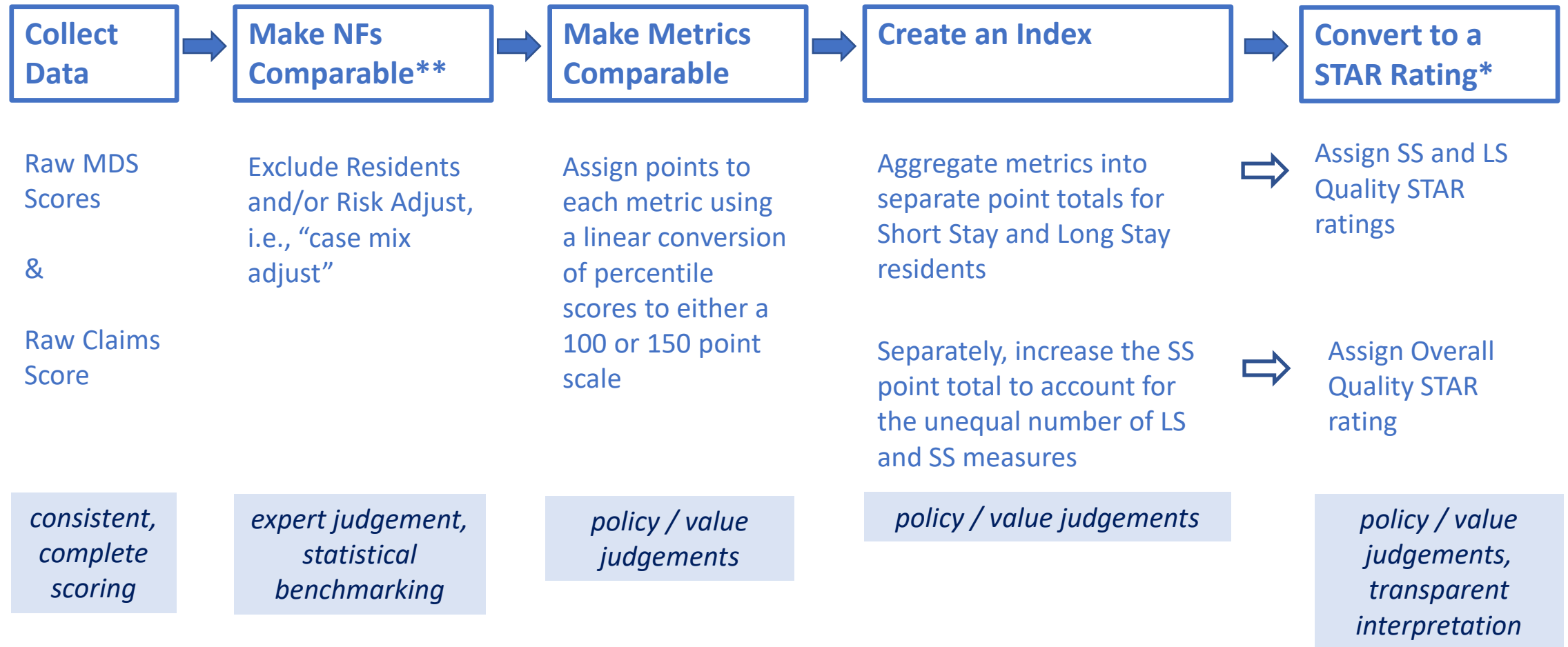
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How Does CMS Make SNF Quality STAR Ratings?
Metric Selection

- *Note: STAR ratings are the pre-eminent and most sophisticated example found for aggregating NF quality metrics into performance indices. Although Medicare does not use STAR ratings in payment, the final step from index to payment would be computationally straightforward.*

- CMS adds or subtracts quality metrics periodically and currently maintains a list of 34 MDS-based and 5 claims-based metrics
- STAR measures were selected from this list "based on their validity and reliability, the extent to which nursing home practice may affect the measures, statistical performance, and the importance of the measures." *– Technical User's Guide October 2019*
  - 15 of the MDS-based metrics are available only to facilities on CMS' QIES website
  - 24 remaining metrics are included in CMS' Nursing Home Compare public reporting system
  - Of these, 15 were selected for the Quality STAR Rating

How Does CMS Make SNF Quality STAR Ratings?
From Raw Data to a STAR rating

Collect Data	→	Make NFs Comparable**	→	Make Metrics Comparable	→	Create an Index	→	Convert to a STAR Rating*

Raw MDS Scores

&

Raw Claims Score

Exclude Residents and/or Risk Adjust, i.e., "case mix adjust"

Assign points to each metric using a linear conversion of percentile scores to either a 100 or 150 point scale

Aggregate metrics into separate point totals for Short Stay and Long Stay residents

Separately, increase the SS point total to account for the unequal number of LS and SS measures

⇨ Assign SS and LS Quality STAR ratings

⇨ Assign Overall Quality STAR rating

consistent, complete scoring

expert judgement, statistical benchmarking

policy / value judgements

policy / value judgements

policy / value judgements, transparent interpretation

*See next page
** Example to follow

COMPARE/STAR Quality Results
Long Stay Measures

COMPARE Quality Measure	Nation	IL	IL Ranking
Percentage of LS residents whose need for help with daily activities has increased	14.5	13.7	14
Percent of LS Residents Who Lose Too Much Weight	5.5	6.2	33
Percent of Low Risk LS Residents Who Lose Control of Their Bowel or Bladder	48.4	46.1	15
Percent of LS Residents with a Catheter Inserted and Left in Their Bladder	1.8	2.1	26
Percent of LS Residents With a Urinary Tract Infection	2.6	2.9	25
Percent of LS Residents Who Have Depressive Symptoms	5.1	21.9	40
Percent of LS Residents Who Were Physically Restrained	0.23	0.19	18
Percentage of LS residents experiencing one or more falls with major injury	3.4	3.2	16
Percentage of LS residents assessed and appropriately given the pneumococcal vaccine	93.9	89.2	40
Percentage of LS residents who received an antipsychotic medication	14.2	18.3	38
Percentage of LS residents whose ability to move independently worsened	17.1	15.8	10
Percentage of LS residents who received an antianxiety or hypnotic medication	19.7	19.4	25
Percentage of high risk LS residents with pressure ulcers	7.3	7.6	23
Percentage of LS residents assessed and appropriately given the seasonal influenza vaccine	96	93.7	37
Number of Hospitalizations per 1,000 long-stay resident days	1.7	1.8	29
Number of outpatient emergency department visit per 1,000 long- stay resident days	0.96	1.02	25

Source: COMPARE "State US Averages" as of 9/1/2020 (based on 2019 data)

COMPARE/STAR Quality Results
Short Stay Measures

COMPARE Quality Measure	Nation	IL	IL Ranking
Percentage of SS residents assessed and appropriately given the pneumococcal vaccine	83.9	74.6	38
Percentage of SS residents who newly received an antipsychotic medication	1.8	2.1	31
Percentage of SS residents who made improvements in function	68	63	36
Percentage of SS residents who were assessed and appropriately given the seasonal influenza vaccine	82.9	74.1	39
Percentage of SNF residents with pressure ulcers that are new or worsened	1.4	1.5	22
Percentage of SS residents who were re-hospitalized after a nursing home admission	20.8	22.1	31
Percentage of SS residents who had an outpatient emergency department visit	10.3	10.1	15
Rate of successful return to home and community from a SNF	N/A	N/A	N/A

Source: COMPARE "State US Averages" as of 9/1/2020 (based on 2019 data)

2013 Measure Recommendations for Incentive Program
HFS nursing advisory group's prioritized metrics

Very Important
- Staff retention / stability
- Consistent assignments
- Pressure ulcers (long stay residents)
- Re-hospitalizations

Important
- Attendance by Direct Care Staff at Resident Care Plan meetings
- Falls
- *Moderate / Severe Pain (QM)*
- Restraints
- Unintended weight loss
- Pressure ulcers (short stay residents)
- Psychoactive medication use
- Resident / family satisfaction
- Staff satisfaction
- Participation in Advancing Excellence

Somewhat Important
- Catheter use
- Person centered approaches (Care, Environment and Community)

The nurse advisory group's emphasis in 2013:
- They chose not to focus on inspections
  - Because Medicare already did?
  - Because IDPH oversight mechanisms already did?
- Thought long-stay metrics were more relevant to Medicaid
- Staffing was top of mind by this group of expert practitioners

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Nursing Facility Infrastructure

Change in LTC Facility Licensure over Time
Source: IDPH records 1999-2015
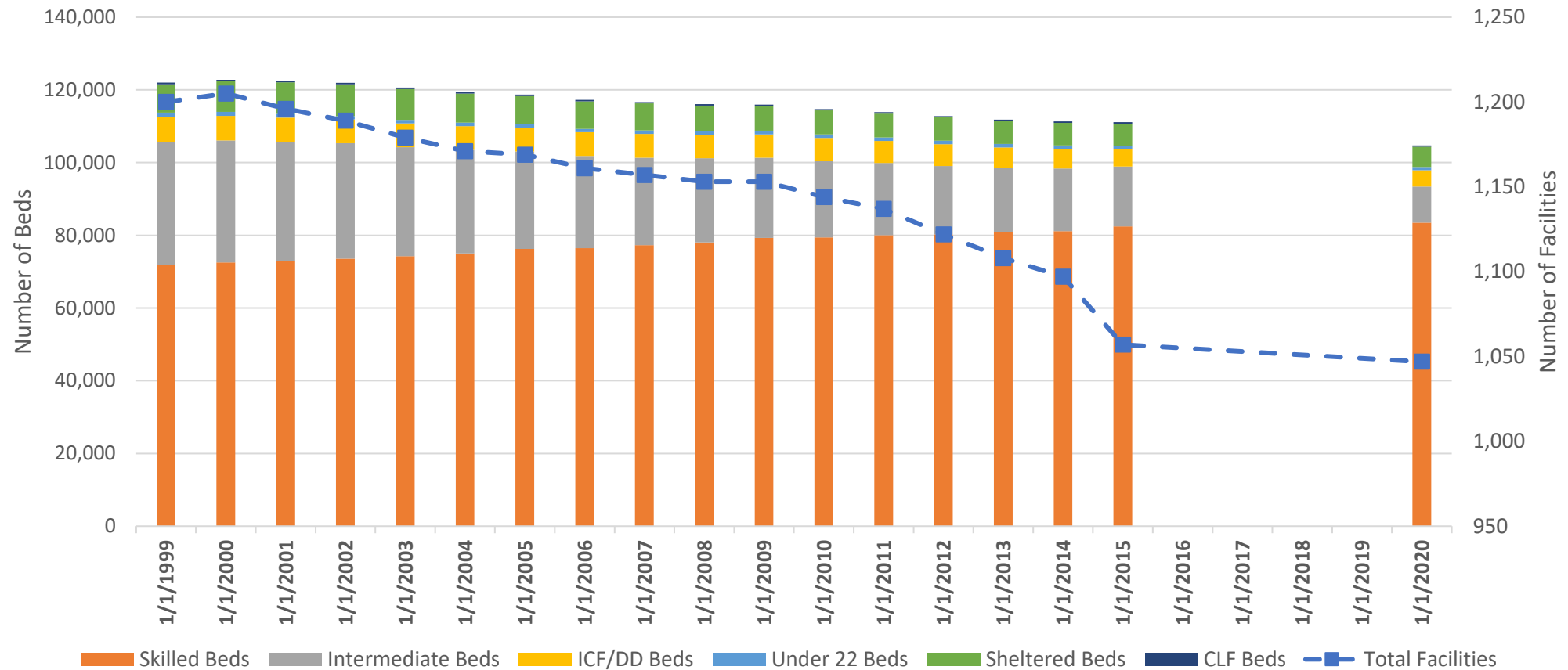
Nursing Facility Census

## LTC Facility Census Decline
Data Pulled 11.10.2020
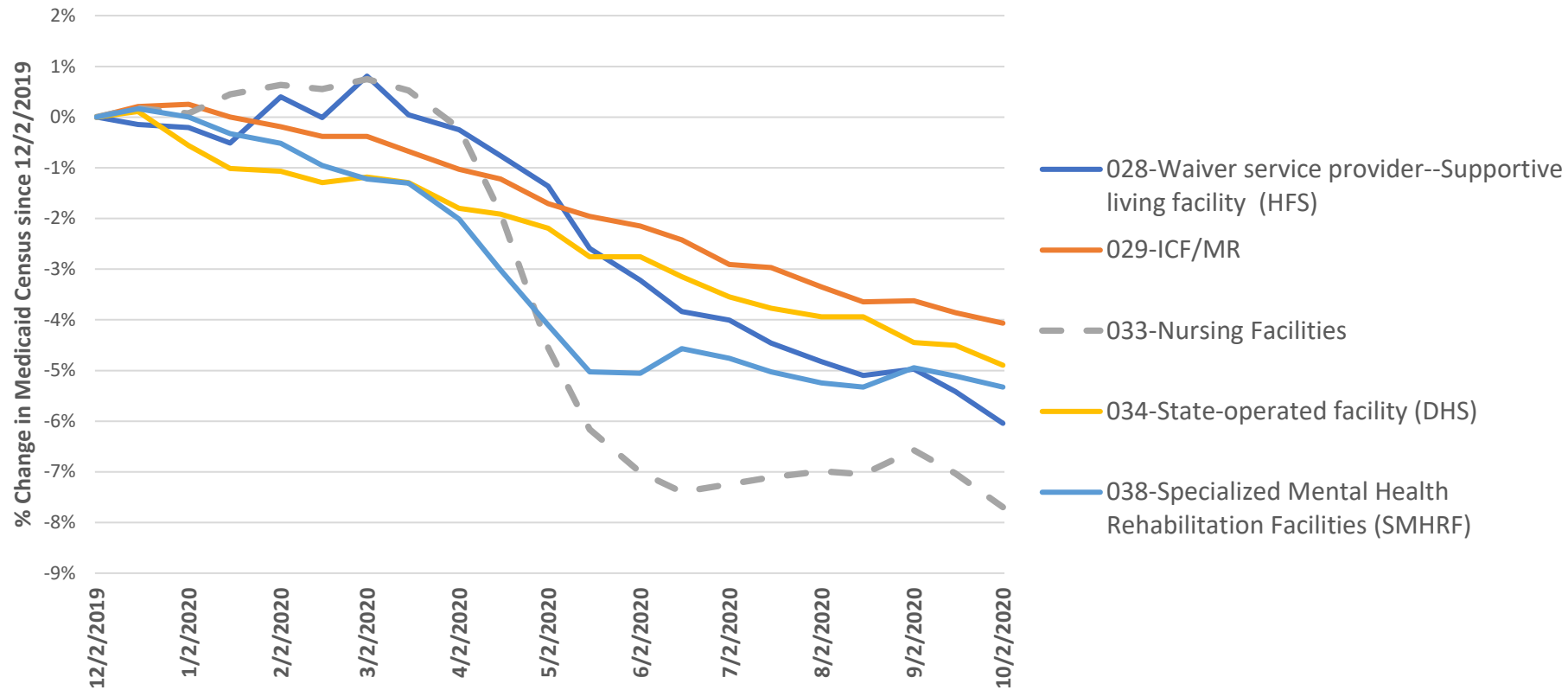
The Medicaid NF census fell with the initial spread and fatal impact of COVID and did not recover during COVID's lull

The drop of ~7-7.5% represents about 3,500 daily Medicaid residents since the beginning of March

Nursing Facility Occupancy

Age and Occupancy of NH Beds for US v. Illinois
Age measured by Facility's Initial Medicare Certification
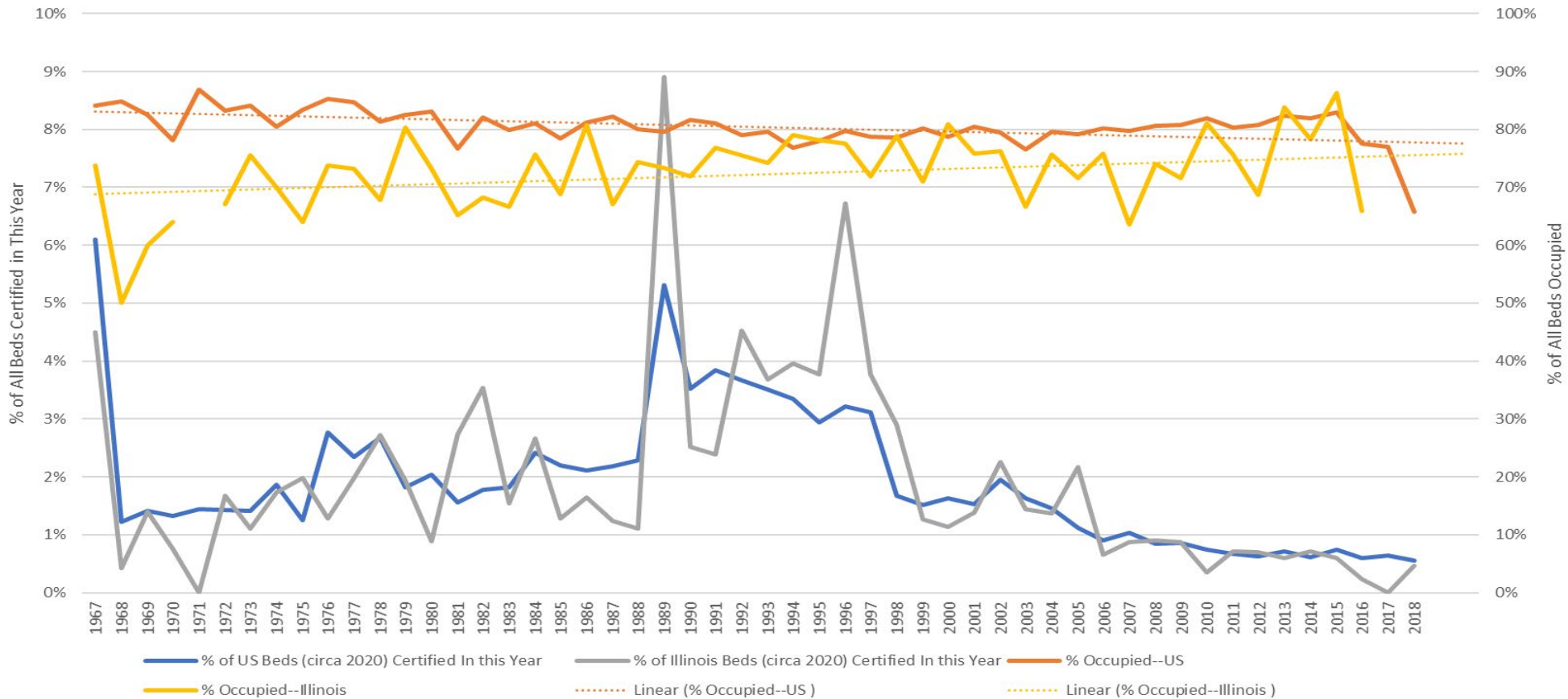
Occupancy increases with more recent Medicare certification in Illinois – but it's (slightly) the reverse for the US as a whole.

The overall Medicare certification age of NH beds in IL looks the same as the country's.

What is the best interpretation or meaning of Medicare certification?

Nursing Facility Infrastructure Age

Cost Report Bed Counts by First (not earliest) Year of Construction Listed
Only facilities with matching p. 2 and p. 12 Bed Counts Included
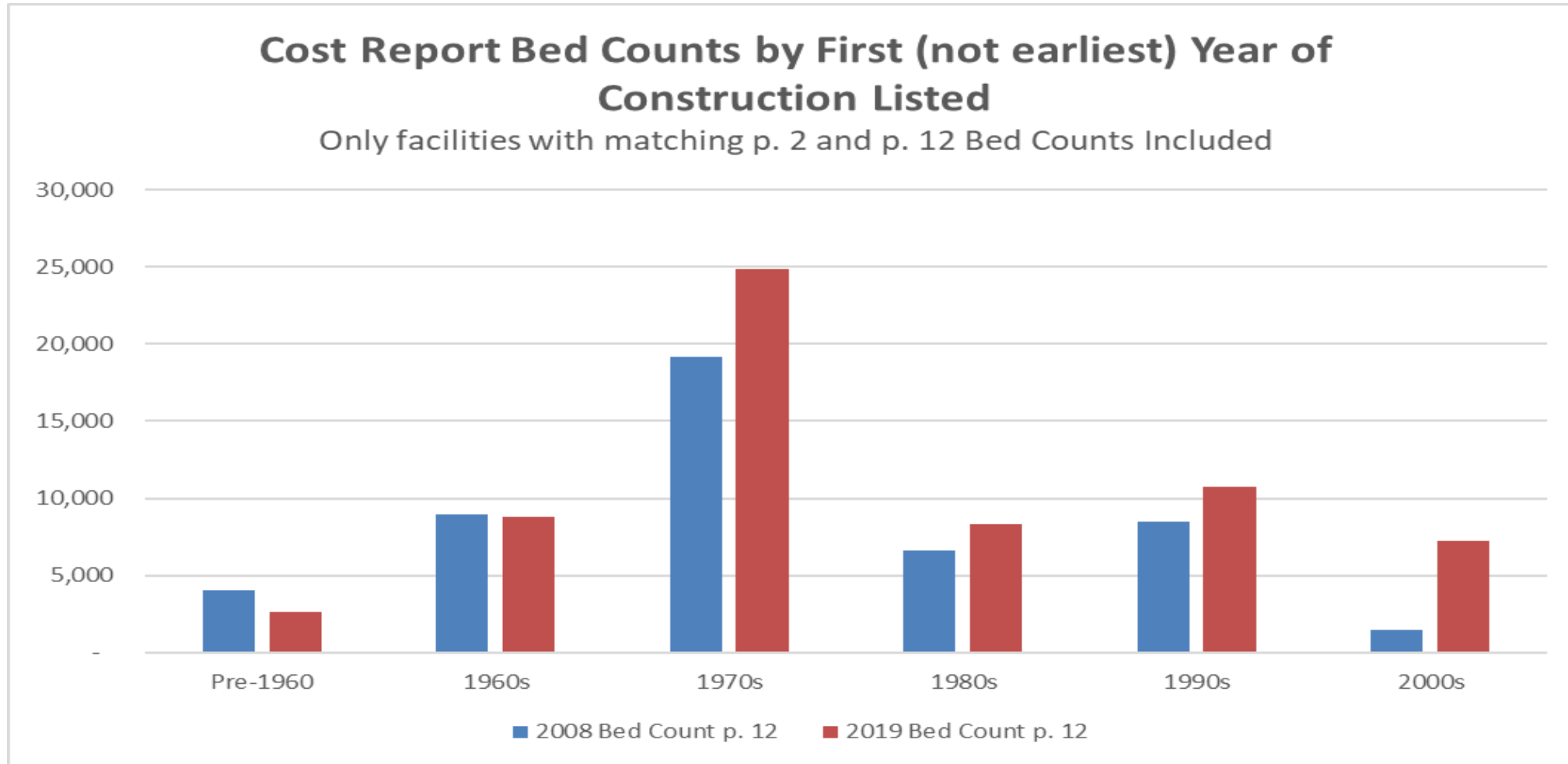
For 2019 622 facilities with 68,210 beds including 2010s and 62,565 without the 2010s.

For 2008 512 facilities and 48,675 beds.

Sources: Completed HFS 2019 Cost Reports

# Concentration of Residents within Nursing Facilities

Distribution of Beds by Licensed Room Capacity
(Statewide Totals; n=715 facilities)
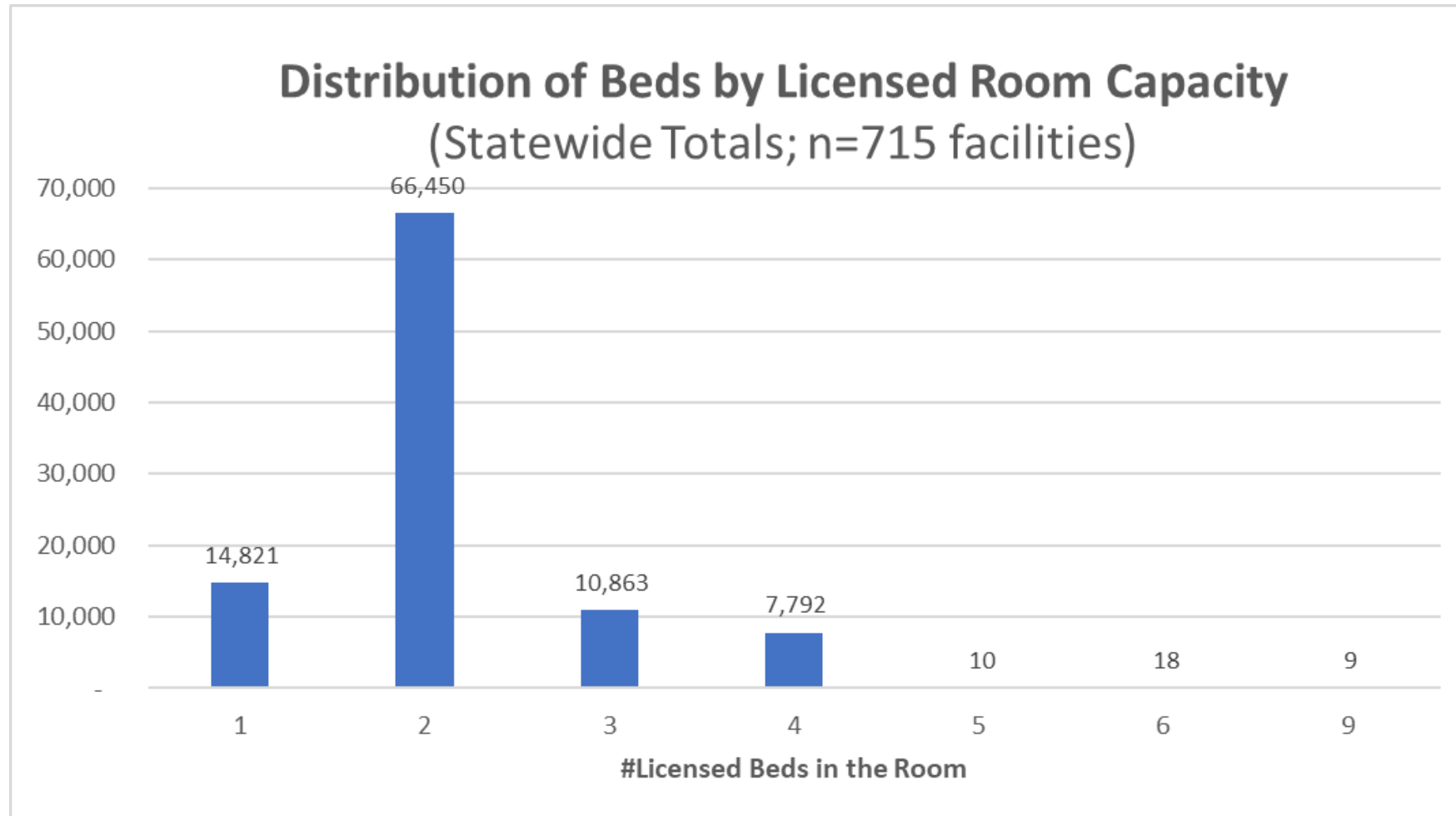
Source: IDPH licensure room count 9/2020

COVID's Impact on Illinois Nursing Facility Residents in Wave 1

Likelihood of contracting Covid varied by type of residence (e.g., SNF v. other) and concentration of Covid cases in the area
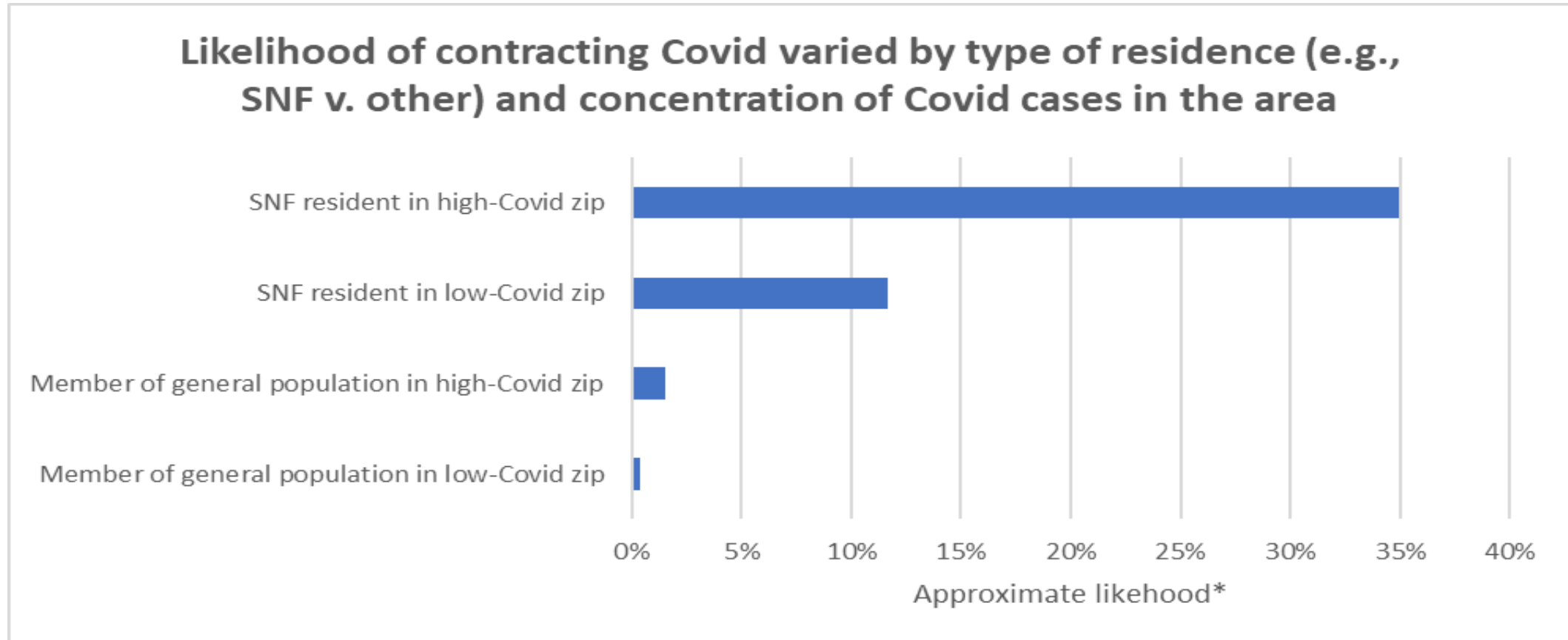
*"High" is above-average, "Low" is below. Aggregated IDPH Covid data from 6.26 for facilities and 5.29 for general population. Missing Covid data treated as zeros. Numerator is cumulative cases, not point in time. This chart (only) was prepared before the availability of 2019 resident counts and uses SNF bed counts as a denominator instead.

COVID Infections in Illinois Nursing Homes: All Skilled Nursing Facilities
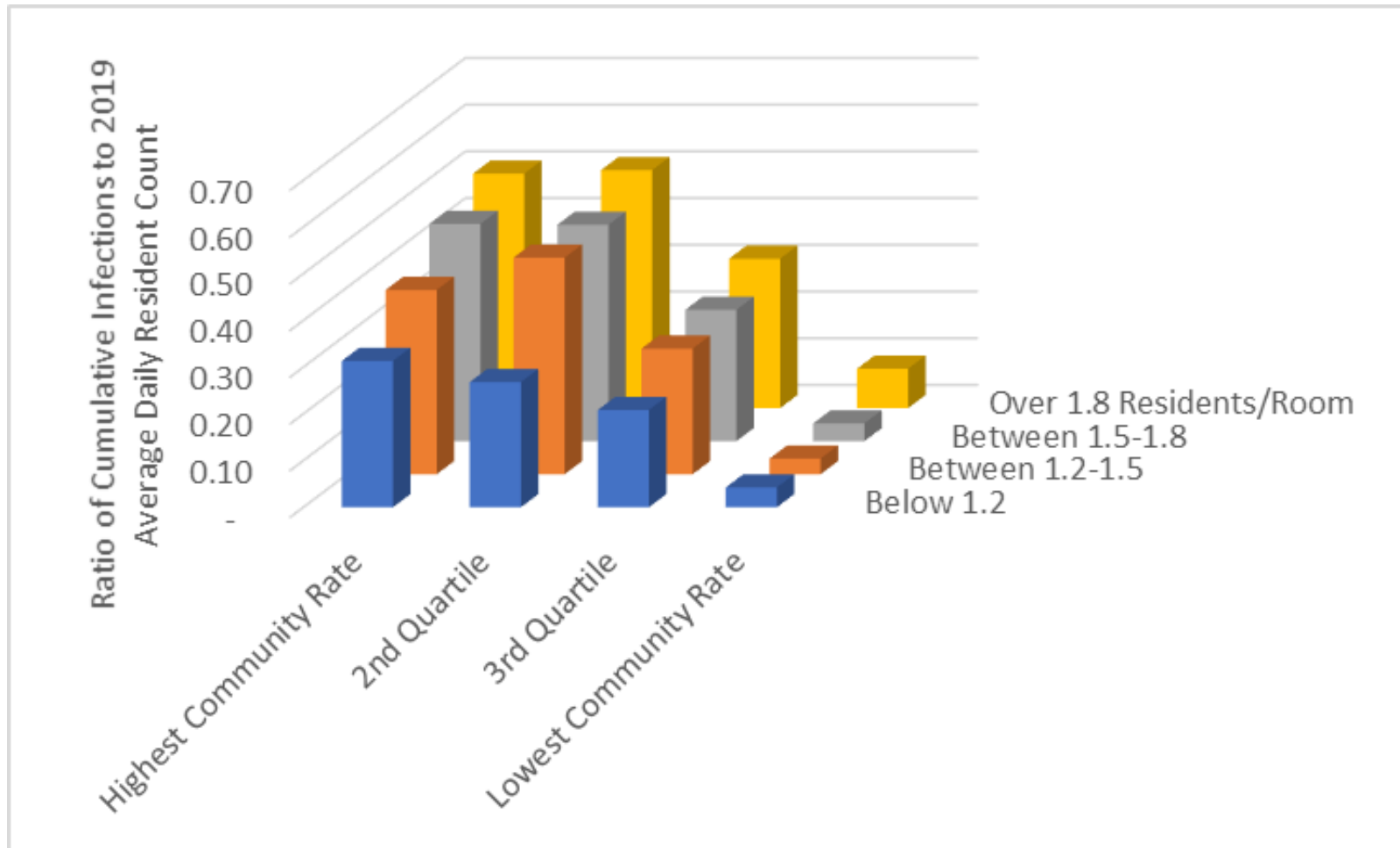
The average number of residents per room appears to explain Covid's Wave 1 spread somewhat better than total square footage.

In additional analysis (not shown), it appears that above an average of ~2.1 residents per room, COVID infection ratios may *go back down, e.g.,* to about the level observed for facilities with 1.5-1.8 per room. **In other words, infections may have peaked at 1.8-2.1 residents/room.**

Sources: IDPH Aggregated COVID Records 5/2020; IDPH Room Count 9/2020; Preliminary HFS 2019 Cost Reports

Summary of Nursing Home Infrastructure and the Spread of Coronavirus

Based on existing, though incomplete evidence:

- Community rates of infection appear to have had the greatest impact on resident infections (and presumably deaths)
- Physical characteristics of NFs appear to have had significant impact on COVID's spread
  - Resident density *within* nursing homes, especially in the form of residents/room, also appears to have had a very large impact on resident infections
  - Facility size, multi-floor facilities and Chicago-area location are all also (individually) related to Wave 1 COVID infections
  - All of these facility characteristics are correlated with each other, leaving causation uncertain
  - Resident density is strongly correlated with NF infections after controlling for *each* of the rest
- Little is known about airflow, replacement, and filtering in Illinois nursing homes – three presumptive keys to infection control for the airborne Coronavirus
- Recent guidance from the CDC/OSHA/EPA and IDPH may provide additional mitigation controls, e.g., prior to effective vaccinations

# Summary of Feedback on Infrastructure

- Ideas for reprogramming funding for capital improvements
  - some states use bed buybacks
  - some states enable selling or banking of beds
  - consider potential dilution of targeted funding (for physical infrastructure) due to independent MCO contracting process
- Illinois has one of the highest occupancy penalties in the country in its Medicaid rate, so this could be lowered
- Consider tying (formulaic components for) profit and support to infrastructure quality, e.g., different tiers for different levels of density or room occupancy
- Consider the potential complementarity or substitutability of
  - airflow improvements v.
  - physical redesign (occupancy) v.
  - staffing assignments (limiting internal spread)
  - …and therefore the potential to fund the three (if it's three) together, e.g., giving the choice to NFs about which path to take -- at least for purposes of infection control
- Other infrastructure considerations could include specialized beds, outdoor space and other "homelike" improvements in the physical environment such as eliminating nursing stations, room-based medication (carts?), and moving towards suite- or "neighborhood-" type pods or areas with *shared* homelike infrastructure
- Allow for the preference some may have for double-occupancy

Rebalancing in Illinois

- Illinois was recognized as one of the top 10 states in making progress on rebalancing in terms of HCBS as a percentage of total LTSS expenditures between 2012-2016
  - During this period, Illinois leveraged federal incentives to expand access to HCBS.
  - As of 2019, roughly half of LTSS expenditures were dedicated to HCBS

- In the last two decades, Illinois has been subject to several lawsuits resulting in consent decrees which require the state to provide the opportunity for care in the most community-integrated setting possible

- The Choices for Care program and Coordinated Care Unit (CCU), as well as PASRR, are also designed to screen and 'deflect' institutionally-qualifying individuals to the community

- Illinois requires managed care plans to cover nursing facility services, home health services and some HCBS waiver services

- MCO enrollment tends to follow LTC placement since pre-LTSS coverage is more likely through Medicare via Medicaid-Medicare Alignment Initiative (MMAI) health plans for duals

- Like many other states, Illinois MCO capitation rates for members receiving LTSS incorporate an escalating risk-adjusted target ratio of HCBS v. NF recipients
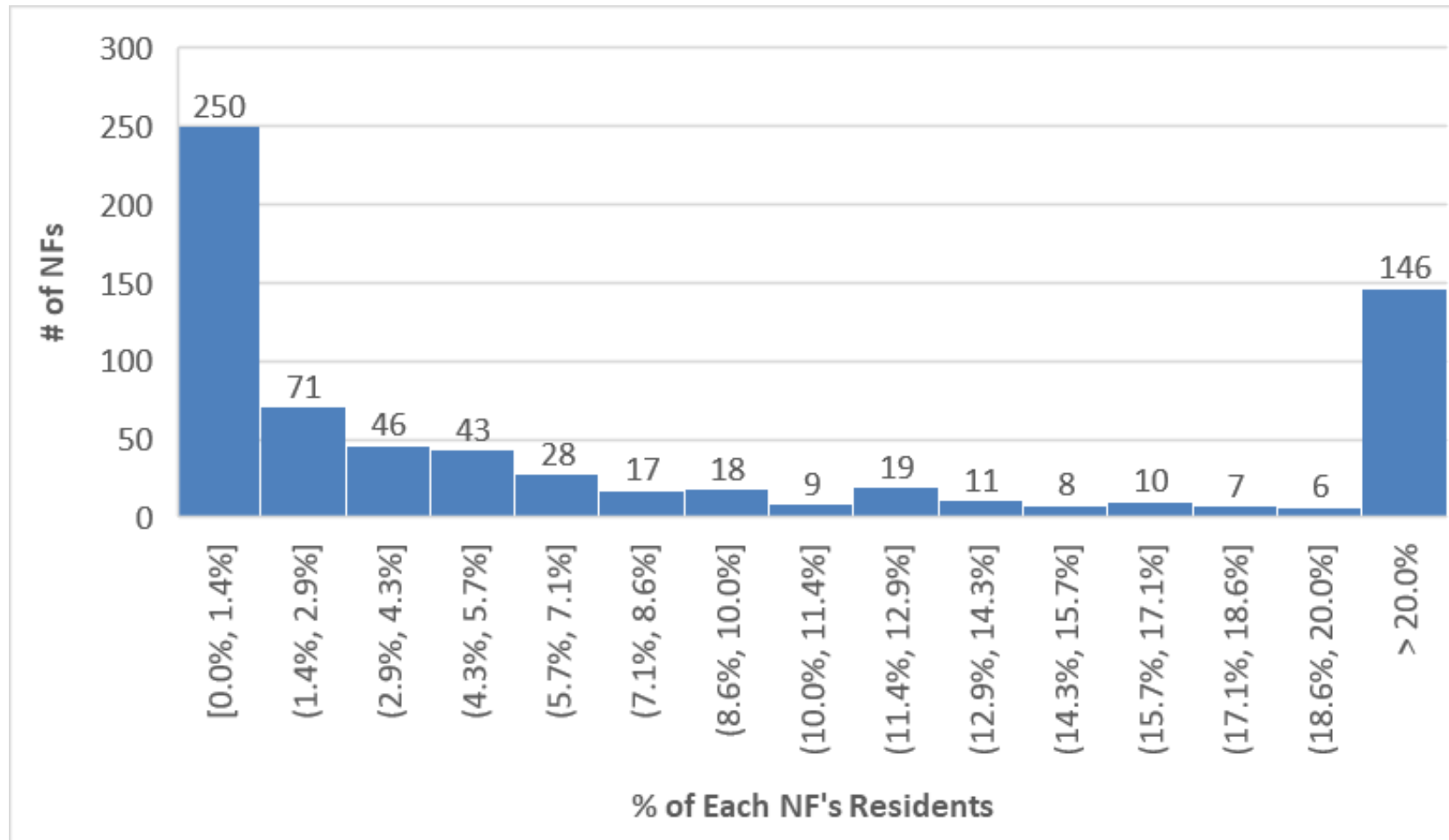
Medicaid's % of General Nursing Residents Varies
(n=691 Multi-Level Facilities with >= 10 General Nursing Residents; From Health Facilities and Services Review Board 2018 Survey)
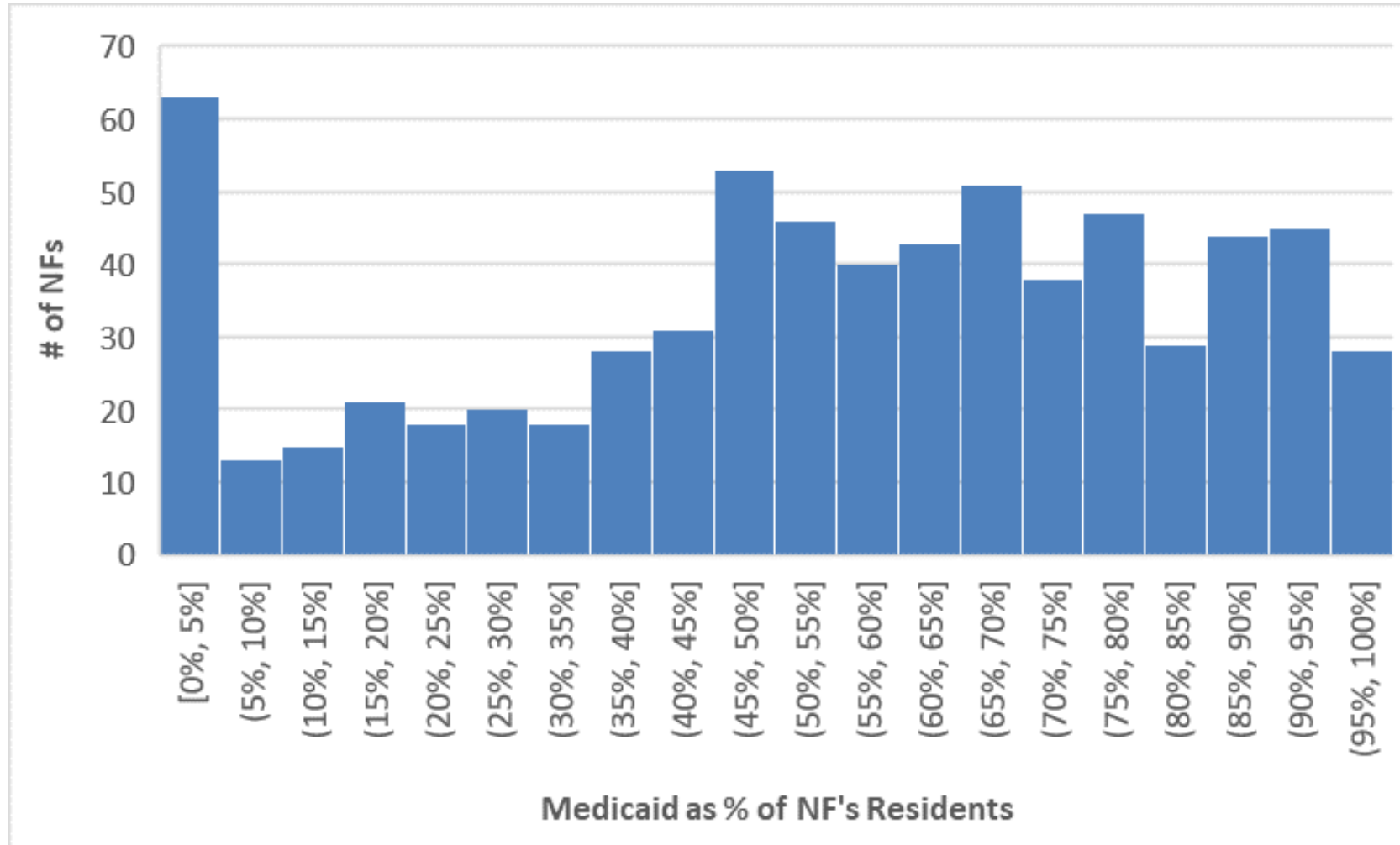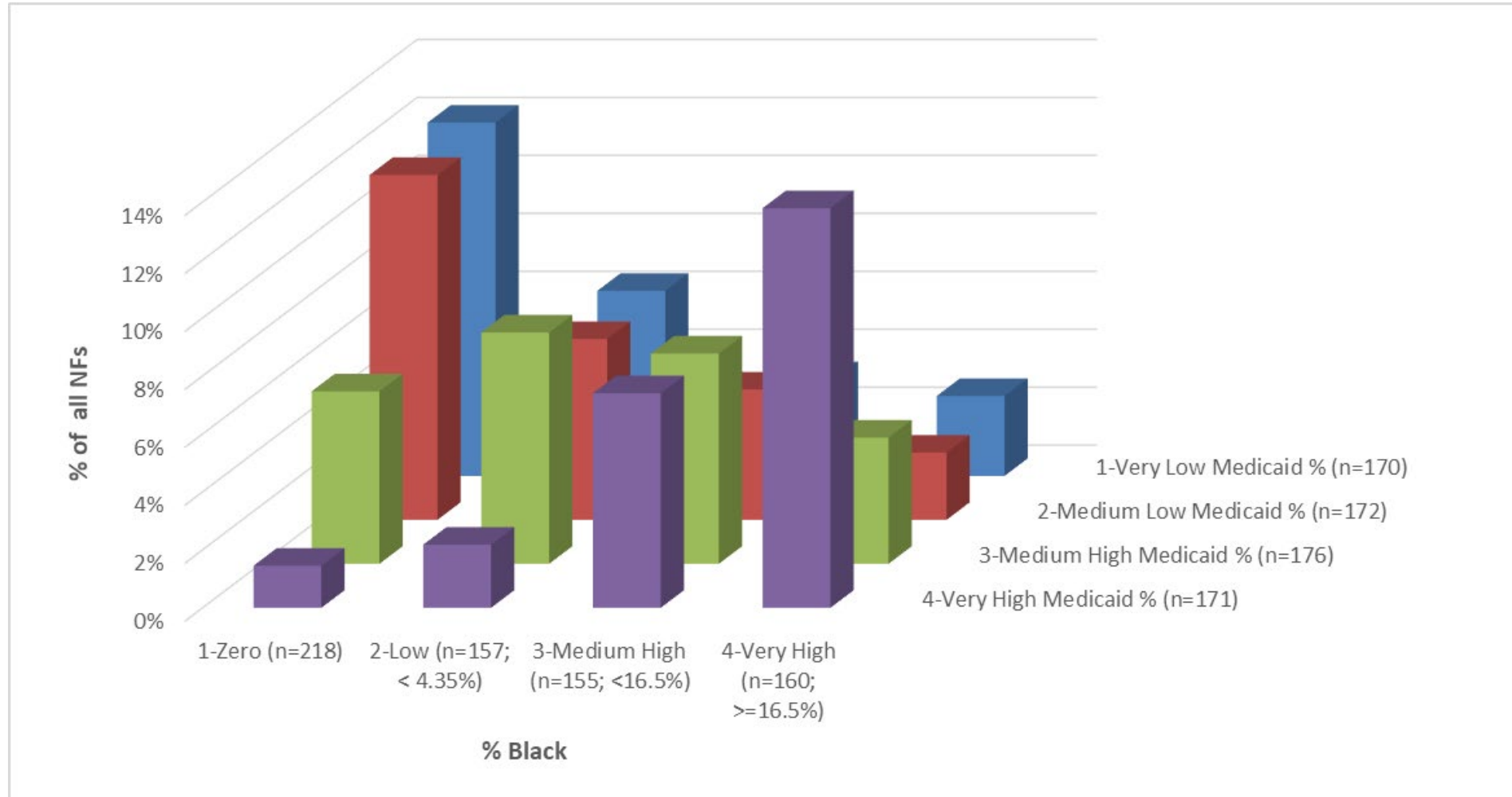
Racial Balance in Illinois NFs
(n=695 Multi-Level Facilities with >= 10 General Nursing Residents; From Health Facilities and Services Review Board 2018 Survey)
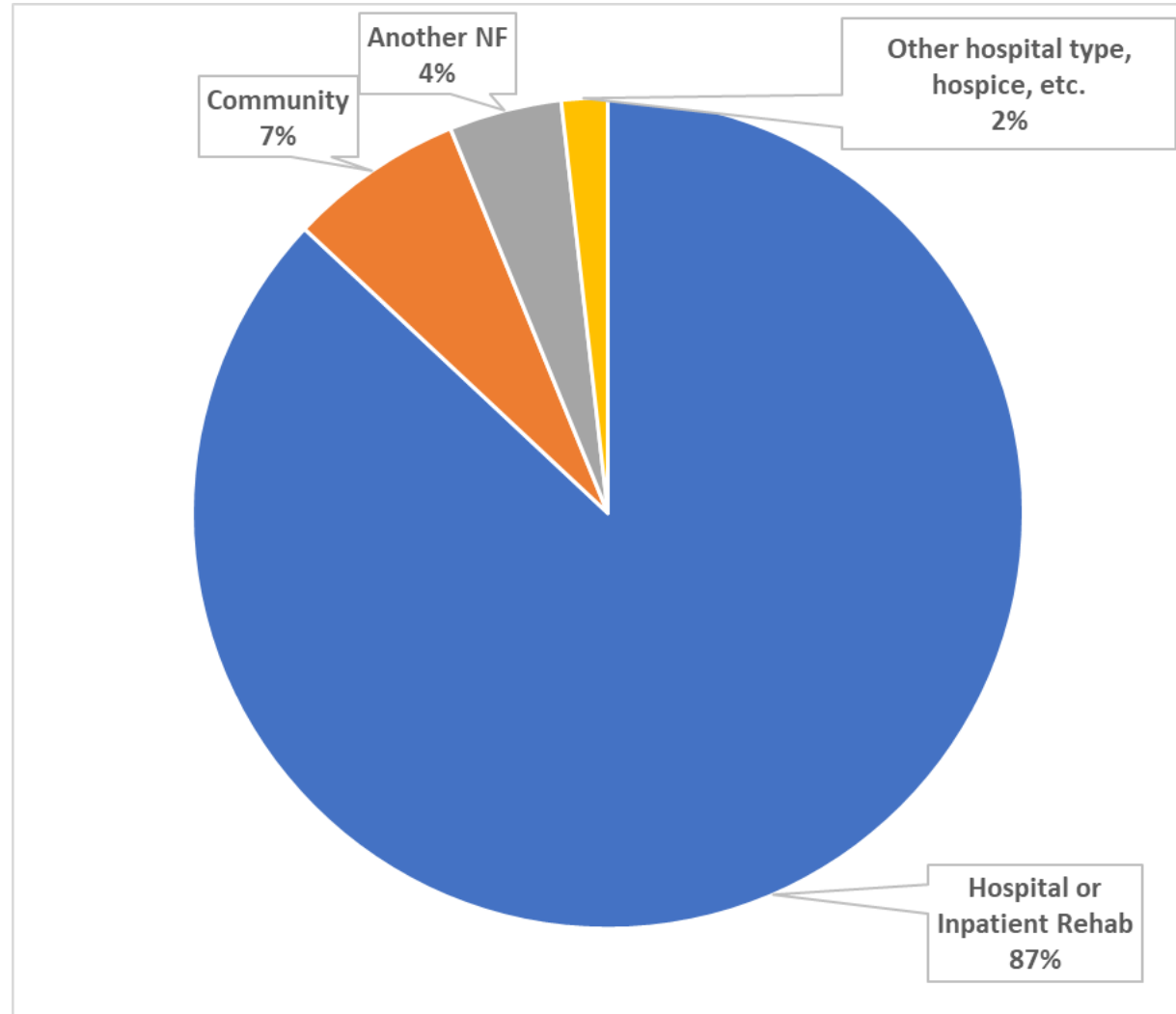

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Payer and Racial Balance in Illinois NFs
(n=681 Multi-Level Facilities with >= 10 General Nursing Residents; From Health Facilities and Services Review Board 2018 Survey)

Where do NF Admissions Come From?
MDS All-Payer Data from 3Q 2019; n=38,774 Admissions

Program Choices for Medicaid-Medicare Dual Eligibles

	MLTSS-excluded populations*	Qualifies for LTC (institutional or HCBS)	Doesn't Qualify for LTC
Medicaid FFS/MA + Medicare FFS	✓	Only until MLTSS/MMAI enrollment	✓
MMAI	N/A	✓	✓
MLTSS + Medicare FFS/MA	N/A	✓	N/A

*Partial duals, spenddown, others.

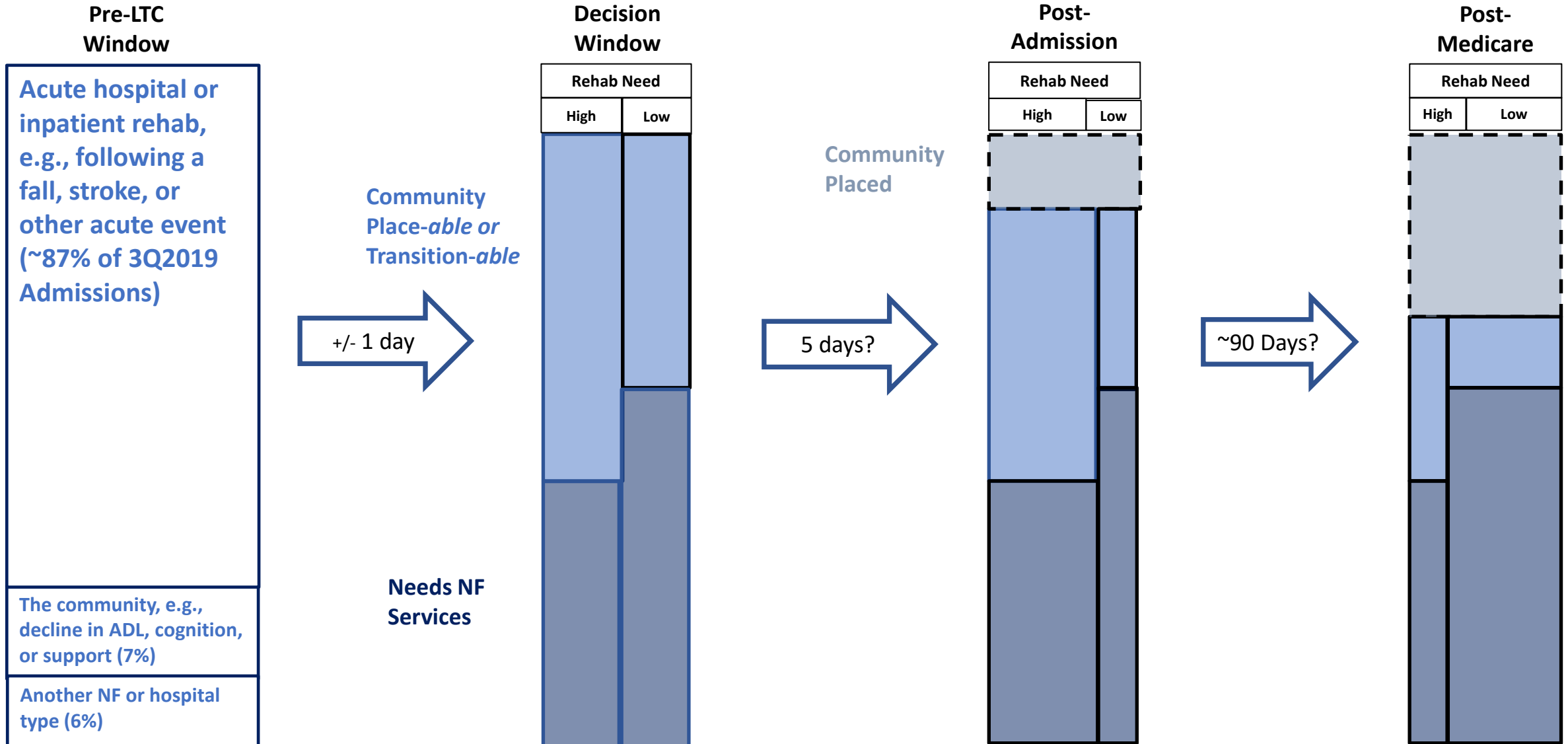The only types of managed care that duals can be enrolled in is MLTSS or MMAI.

MMAI is the auto-enrollment default where available (statewide beg. 7/1/2021). If one opts-out they are auto-enrolled in MLTSS.

Apart from the MMAI choice, MLTSS is mandatory for included populations, e.g., those not categorically excluded and who qualify/enroll in institutional or HCBS waiver services.
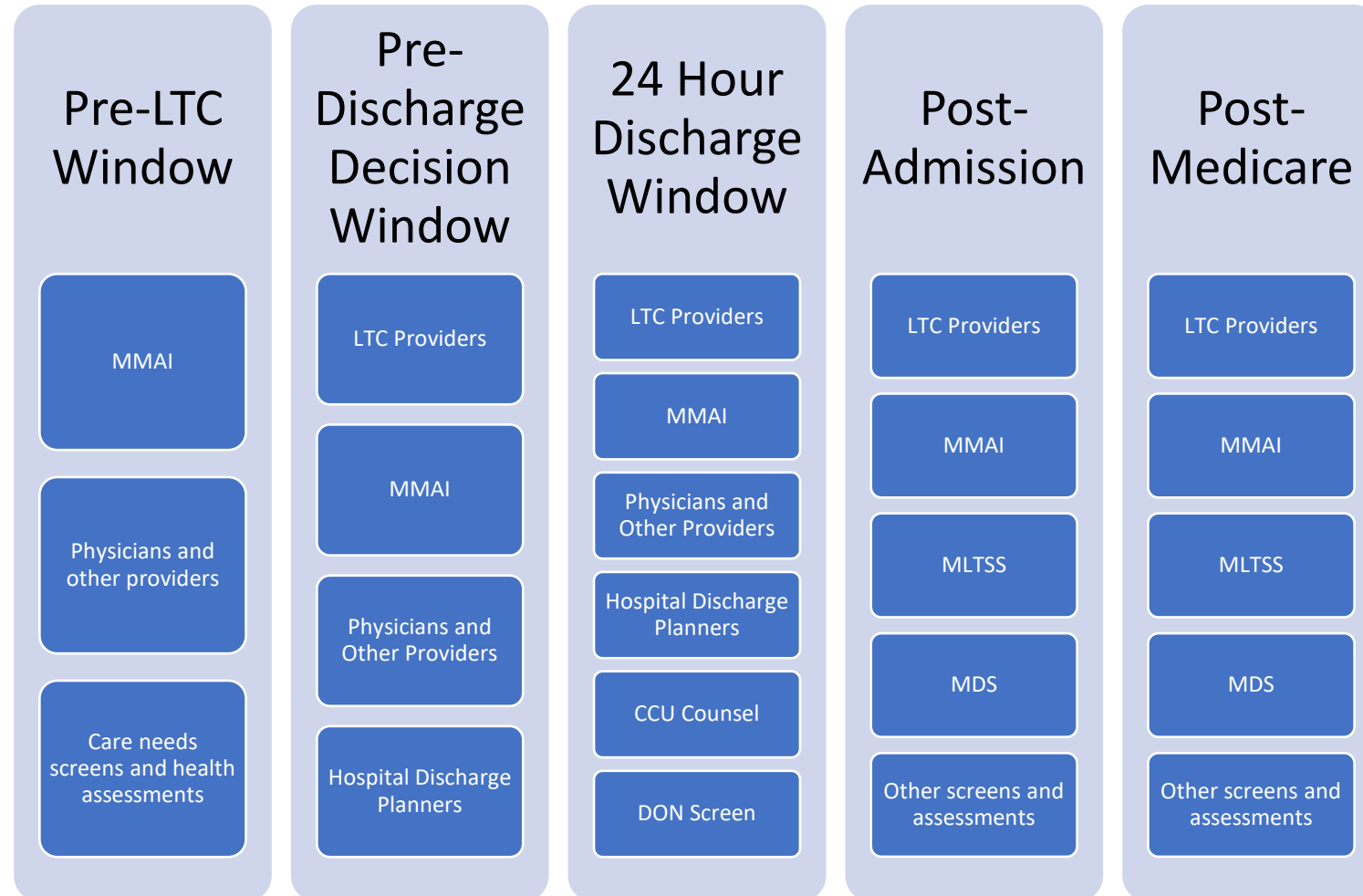
Timeline and Profile of Institutional Qualifiers Over Time
For a Hypothetical Cohort of New Qualifiers

Pre-LTC Window

Acute hospital or inpatient rehab, e.g., following a fall, stroke, or other acute event (~87% of 3Q2019 Admissions)

The community, e.g., decline in ADL, cognition, or support (7%)

Another NF or hospital type (6%)

+/- 1 day

Community Place-*able or* Transition-*able*

Needs NF Services

Decision Window

Rehab Need	
High	Low

5 days?

Post-Admission

Rehab Need	
High	Low

Community Placed

~90 Days?

Post-Medicare

Rehab Need	
High	Low

Influences on LTC Choice & Placement
Focusing on hospital-based decisions

Pre-LTC Window	Pre-Discharge Decision Window	24 Hour Discharge Window	Post-Admission	Post-Medicare
MMAI	LTC Providers	LTC Providers	LTC Providers	LTC Providers
Physicians and other providers	MMAI	MMAI	MMAI	MMAI
Care needs screens and health assessments	Physicians and Other Providers	Physicians and Other Providers	MLTSS	MLTSS
	Hospital Discharge Planners	Hospital Discharge Planners	MDS	MDS
		CCU Counsel	Other screens and assessments	Other screens and assessments
		DON Screen		

Summary of Feedback on Rebalancing

- Mental health conditions merit special attention in payment design to ensure appropriate case mix adjustment, though there is not agreement on whether that entails add-on payments of some kind
- Access to NF services for those with mental health conditions or displaying aggressive behavior is mixed
- Consideration should be given to the amount of uncertainty introduced relative to the scope of adoption of PDPM's 4-5 components (in addition to applicability of each)
- Hospitals play a leading role in NF placement at the point of discharge, while nursing homes are the most consistent potential influence over the course of initial placement and potential transition
- Potential analysis: identifying gaps between an inpatient and NF stay may reflect abandoned attempts to return to the community

Referent Standards of Access and Network Adequacy
Federal Medicaid Managed Care Regulations

Medicaid & Children's Health Insurance Program (CHIP) Managed Care Final Rule - CMS-2408-F (§ 438.68(b)(2))
Updated November 2020, Network Adequacy Provisions Effective December 2020
States with MCO, PIHP, or PAHP contracts which cover LTSS must develop a quantitative network adequacy standard for LTSS provider types.

The following criteria must be minimally considered in setting network adequacy standards for LTSS:

- elements that would support an enrollee's choice of provider
- **strategies that would ensure the health and welfare of the enrollee and support community integration of the enrollee**
- **other considerations that are in the best interest of the enrollees that need LTSS**
- the anticipated Medicaid enrollment
- the expected utilization of services
- the characteristics and health care needs of specific Medicaid populations covered in the MCO, PIHP, and PAHP contract
- the numbers and types (in terms of training, experience, and specialization) of network providers required to furnish the contracted Medicaid services
- the numbers of network providers who are not accepting new Medicaid patients

- the geographic location of network providers and Medicaid enrollees, considering distance, travel time, the means of transportation ordinarily used by Medicaid enrollees
- the ability of network providers to communicate with limited English proficient enrollees in their preferred language
- the ability of network providers to ensure physical access, reasonable accommodations, culturally competent communications, and accessible equipment for Medicaid enrollees with physical or mental disabilities
- the availability of triage lines or screening systems, as well as the use of telemedicine, e-visits, and/or other evolving and innovative technological solutions

(**emphasis** added)

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Referent Standards of Access and Network Adequacy
State LTSS Network Adequacy Standards

- States may use network adequacy standards such as minimum provider ratios, maximum time and distance standards, minimum percentage of providers accepting new patients, maximum appointment wait times, hours of operation requirements and combinations of such measures to meet federal Medicaid Managed Care requirements.
- A 2017 contracted study for CMS found that among 26 MLTSS programs (some within the same state) with documented network adequacy standards specific to LTSS, the most common were choice of providers (65%), travel distance (50%), travel time (38%) and service initiation time (31%).

For example, within Medicaid MCOs:
- California – appointment waiting time (e.g., within 7 business days of request in medium counties for SNFs)
- New York – minimum provider number (e.g., 8 non-specialty nursing homes per specified county)
- Wisconsin – minimum provider ratios (125:1 in rural areas, 350:1 in metro areas for nursing homes)

Referent Standards of Access and Network Adequacy
MediCal MLTSS Policy

Network Adequacy Standards
Attachment A

Network Adequacy Standards		
Provider Type	Timely Access Standard	Time and Distance Standard by County Size[5]
Long Term Services and Supports (LTSS)	If applicable[6]	Time and distance standards are not established for Multipurpose Senior Services Program (MSSP), Skilled Nursing Facilities (SNF), or Intermediate Care Facilities (ICF) providers as these providers either travel to the member to provide services or the member resides at the facility for care.

Source: https://www.dhcs.ca.gov/formsandpubs/Documents/MMCDAPLsandPolicyLetters/APL2019/APL19-002A.pdf

Referent Standards of Access and Network Adequacy
Medicare Advantage Plans

42 CFR §422.116   Network adequacy.   [For the Medicare Advantage Program; in minutes and miles]

Table 1 to Paragraph (d)(2)

Provider/Facility type	Large metro		Metro		Micro		Rural		CEAC	
	Max time	**Max distance**	**Max time**	**Max distance**	**Max time**	**Max distance**	**Max time**	**Max distance**	**Max time**	**Max distance**
Primary Care	10	5	15	10	30	20	40	30	70	60
Allergy and Immunology	30	15	45	30	80	60	90	75	125	110
Cardiology	20	10	30	20	50	35	75	60	95	85
…										
Acute Inpatient Hospitals	20	10	45	30	80	60	75	60	110	100
Cardiac Surgery Program	30	15	60	40	160	120	145	120	155	140
Cardiac Catheterization Services	30	15	60	40	160	120	145	120	155	140
Critical Care Services—Intensive	20	10	45	30	160	120	145	120	155	140
Surgical Services (Outpatient or A	20	10	45	30	80	60	75	60	110	100
Skilled Nursing Facilities	**20**	**10**	**45**	**30**	**80**	**60**	**75**	**60**	**95**	**85**
Diagnostic Radiology	20	10	45	30	80	60	75	60	110	100
Mammography	20	10	45	30	80	60	75	60	110	100
Physical Therapy	20	10	45	30	80	60	75	60	110	100
Occupational Therapy	20	10	45	30	80	60	75	60	110	100
Speech Therapy	20	10	45	30	80	60	75	60	110	100
Inpatient Psychiatric Facility Servi	30	15	70	45	100	75	90	75	155	140
Outpatient Infusion/Chemotherapy	20	10	45	30	80	60	75	60	110	100

Source: https://www.ecfr.gov/cgi-bin/text-idx?SID=01e17c6fc24c47eb9d413417b3424e12&mc=true&node=se42.3.422_1116&rgn=div8
Note on website: "e-CFR data is current as of December 15, 2020"

Referent Standards of Access and Network Adequacy
Illinois HFS MLTSS Model Contract Language

Section 5.7.1.3 For NFs and SLFs, Contractor must maintain the adequacy of its Provider Network sufficient to provide Enrollees with reasonable choice within each county of the Contracting Area, provided that each Network Provider meets all applicable State and federal requirements for participation in the HFS Medical Program. Contractor may require as a condition for participation in its network that a NF agree to provide access to Contractor's or Subcontractor's Care Management team to permit qualified members of the team to write medication and lab orders, to access Enrollees to conduct physical examinations, and to serve as PCP for an Enrollee.

Section 5.7.1.4 For Providers of each of the Covered Services identified in this section 5.7.1.4 under an HCBS Waiver, Contractor must enter into contracts with a sufficient number of such Providers within each county in the Contracting Area to assure that the Network Providers served at least eighty percent (80%) of the number of Participants in each county who received such services on the day immediately preceding the day such services became Covered Services. For counties served by more than one (1) Provider of such Covered Services, Contractor shall enter into contracts with at least two (2) such Providers, so long as such Providers accept Contractor's rates, even if one (1) Provider served more than eighty percent (80%) of the Participants, unless the Department grants Contractor an exception, in writing. These Covered Services include:
- adult day care; homecare/in-home services; day habilitation; supported employment; home-delivered meals; home health aides; nursing services; Occupational Therapy; Speech Therapy; and Physical Therapy

Referent Standards of Access and Network Adequacy
Facilities and Services Review Board Standards for Access and Need

JCAR Section 1125.210 General Long-Term Nursing Care Category of Service

a) **Planning Areas**

95 general long-term nursing care planning areas are located within 11 Health Services Areas (HSAs).

b) **Age Groups**

For general long-term nursing care, age groups are 0-64, 65-74, and 75 and over.

c) **Utilization Target**

Facilities providing a general long-term nursing care service should operate those beds at a minimum annual average occupancy of 90% or higher.

d) **Bed Capacity**

General long-term nursing care bed capacity is the licensed capacity for facilities subject to the Nursing Home Care Act and the total number of LTC beds for a facility as determined in the HFSRB Inventory for facilities not subject to the Nursing Home Care Act.

e) **Need Determination**

The following methodology is utilized to determine the projected number of nursing care beds needed in a planning area:

1. Establish minimum and maximum planning area use rates for the 0-64, the 65-74, and the 75 and over age groups as follows:

   A. Divide the HSA's base year experienced nursing care patient days for each age group by the base year population estimate for each age group to determine the HSA experienced use rate for each age group;

   B. the minimum planning area use rate for each age group is 60% of the HSA experienced use rate for each age group, and the maximum planning area use rate for each age group is 160% of the HSA experienced use rate for each age group;

   …

8. Subtract the number of existing beds in the planning area from the projected planning area bed need to determine the projected number of excess (surplus) beds or the projected need for additional (deficit) beds in an area.

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Referent Standards of Access and Network Adequacy
Facilities and Services Review Board Standards for Access and Need

Section 1125.540 Service Demand – Establishment of General Long-Term Care

d)   Projected Referrals

An applicant proposing to establish a category of service or establish a new LTC facility shall submit the following:

1)   Letters from referral sources (hospitals, physicians, social services and others) that attest to total number of prospective residents (by zip code of residence) who have received care at existing LTC facilities located in the area during the 12-month period prior to submission of the application. Referral sources shall verify their projections and the methodology used;

2)   An estimated number of prospective residents whom the referral sources will refer annually to the applicant's facility within a 24-month period after project completion. The anticipated number of referrals cannot exceed the referral sources' documented historical LTC caseload. The percentage of project referrals used to justify the proposed expansion cannot exceed the historical percentage of applicant market share, within a 24-month period after project completion;

3)   Each referral letter shall contain the referral source's Chief Executive Officer's notarized signature, the typed or printed name of the referral source, and the referral source's address; and

4)   Verification by the referral sources that the prospective resident referrals have not been used to support another pending or approved Certificate of Need (CON) application for the subject services

Identifying Policy Goals for Capacity and Access

- Ensuring adequate capacity entails characterizing (i.e., choosing a measure of) how nursing facilities across Illinois might meet the needs of current and future nursing facility residents

- While there is no universally accepted metric, existing standards for LTSS provider accessibility and insurance network adequacy provide at least an initial framework for evaluating capacity

- Capacity extends beyond the geographic accessibility of facilities to consider the availability of care inside them

- Access goals may need to evolve to reflect changing expectations for resident quality of life and a new emphasis on infection control

State NF Bed Counts and Census 2004-2019
(Source: HFS Cost Reports)
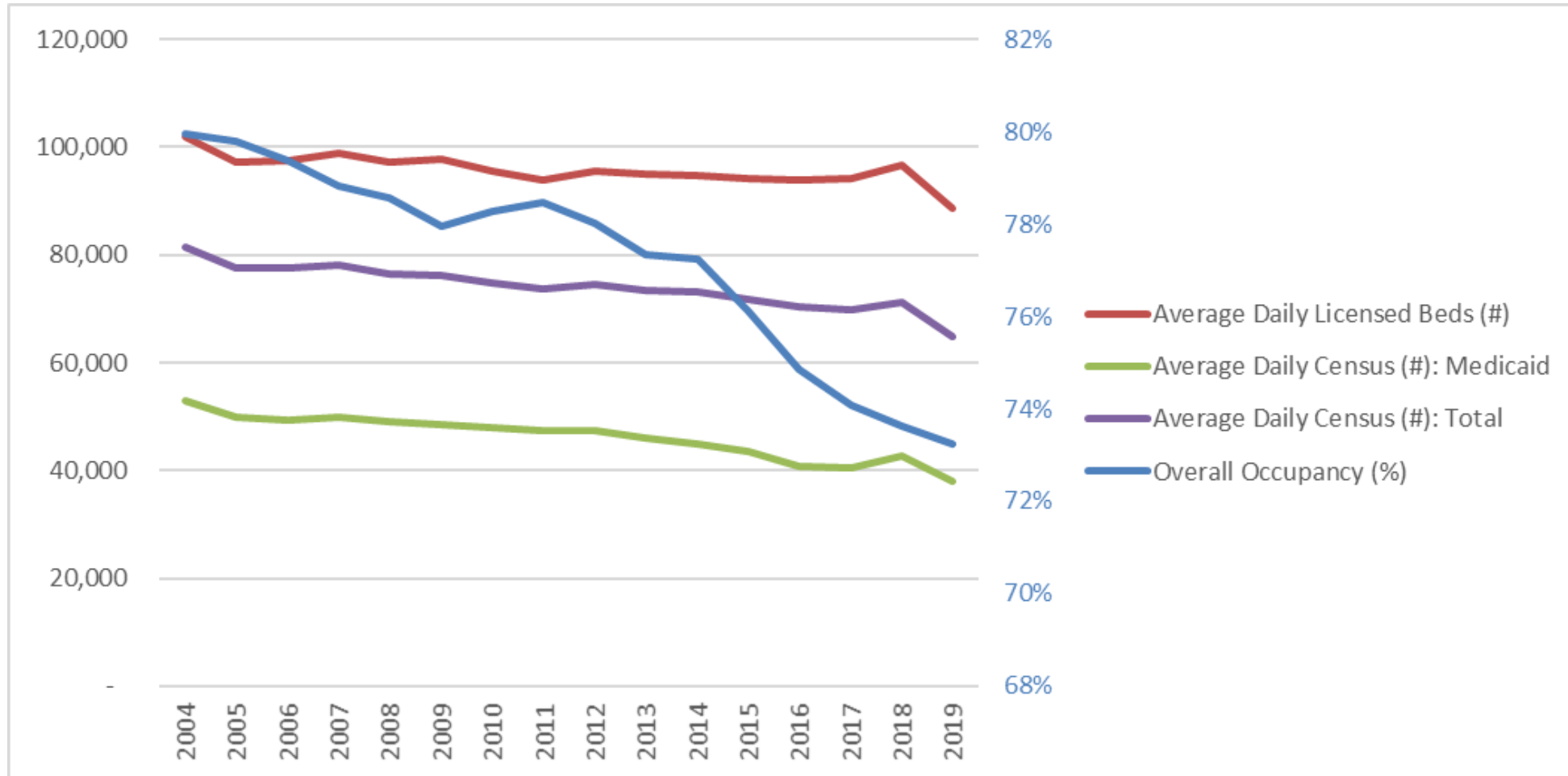
There are 26 fewer NFs in the 2019 CR Tally due to a substantial increase in ownership changes, which delay CR submission to HFS.

The spike upward in 2018 remains unexplained.

Recent Decline in Occupancy 2014-2020
(measured in January of each year, Source: COMPARE)

Occupancy in Illinois v. US
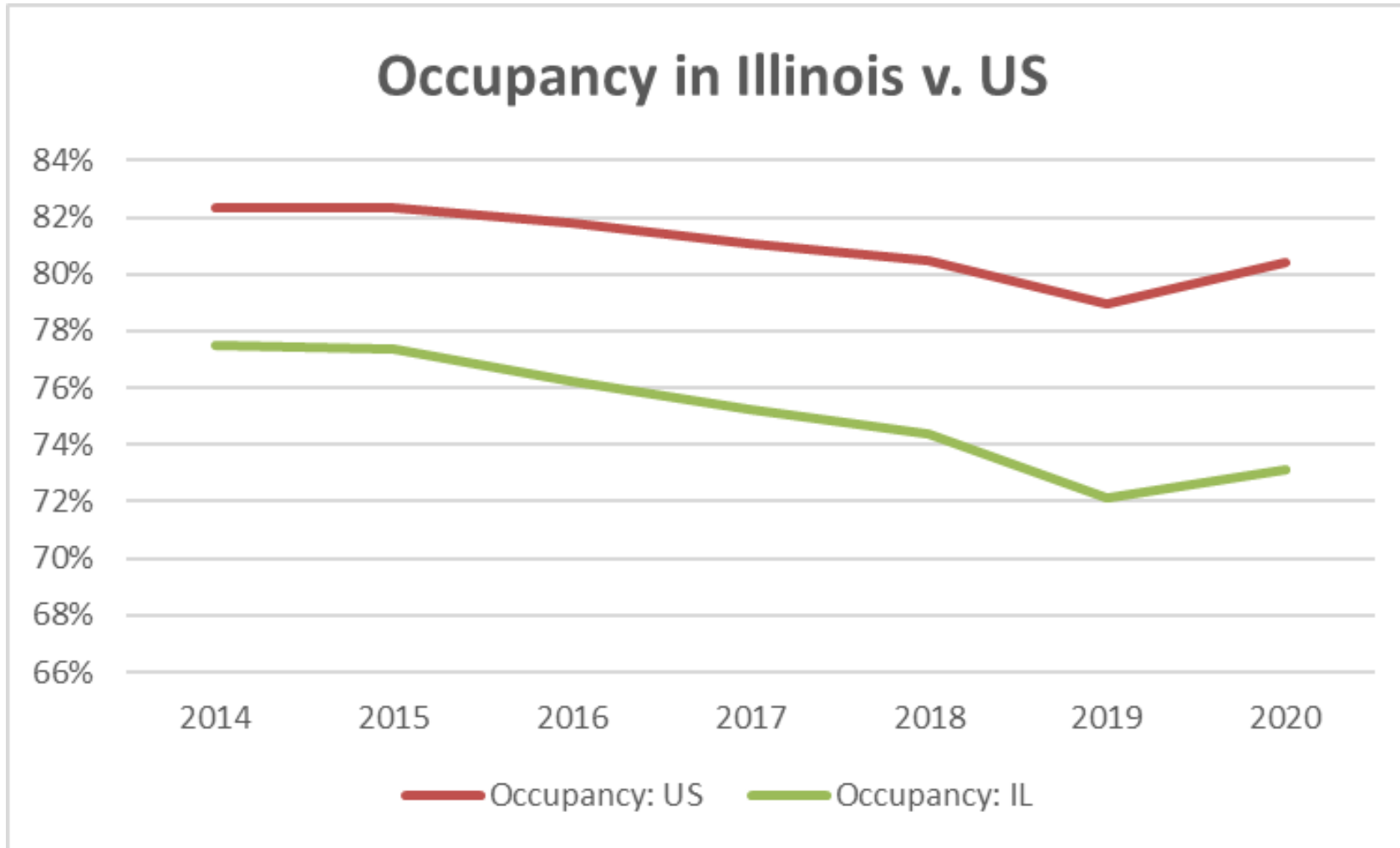
Medicare COMPARE data identifies a different trend in 2018-2020 than HFS cost reports….

Comparison of Trends in Illinois v. the US
(measured in January of each year, Source: COMPARE)

Percentage Point Change in Illinois v. the US
(negative means IL trend was lower; 2014=reference year)
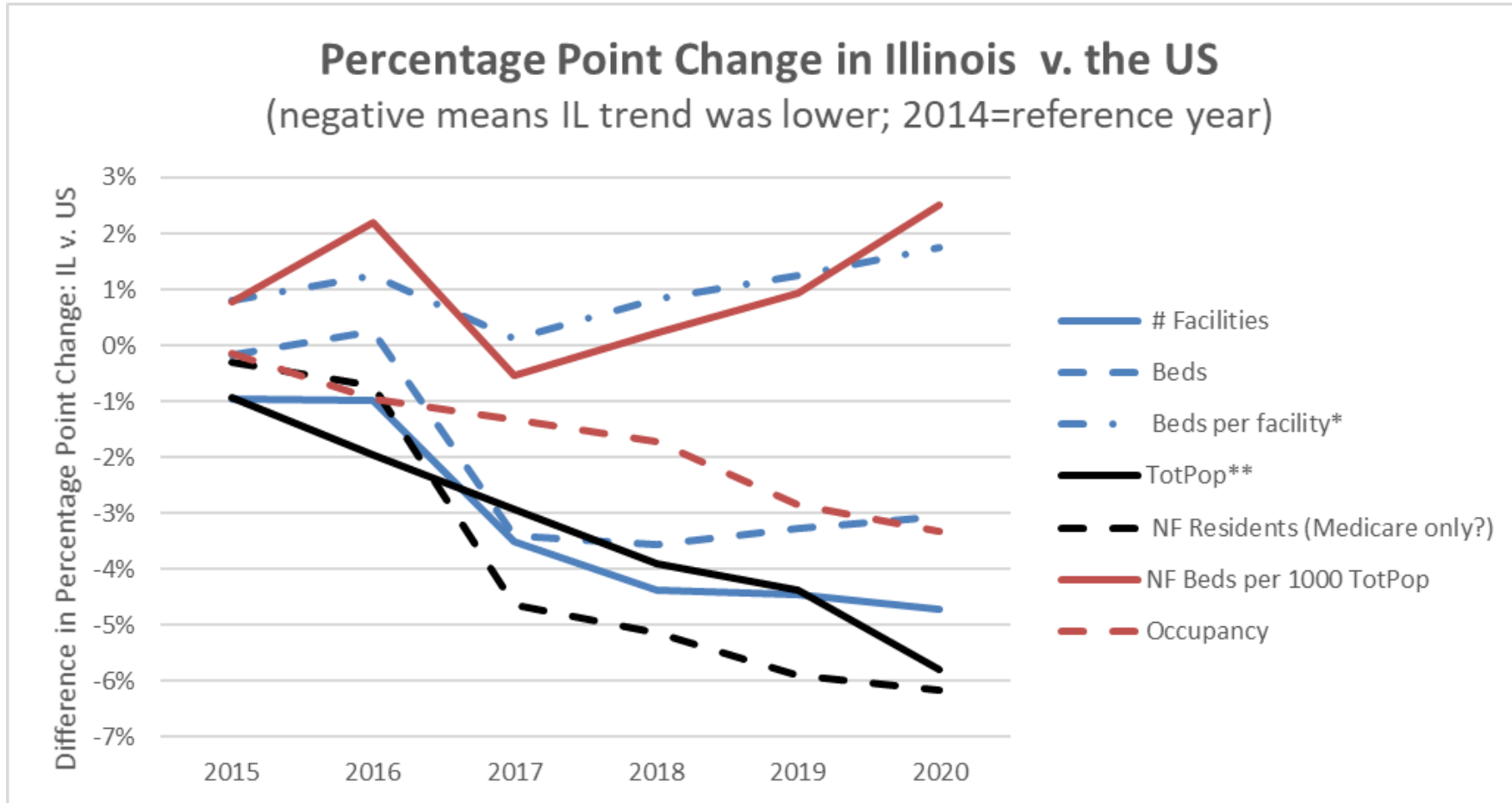
- With two exceptions (US Total Population and IL beds per facility) all trends at both US and IL level were negative.

- The current market trend in Illinois is for *smaller* facilities to drop out

- Occupancy is dropping at both levels, but faster in Illinois

*Indicates positive IL trend (for all others, IL trend was negative)
**Indicates positive US trend (for all others, US trend was negative)

Staffing Levels (v. Regulatory Min) Varied Significantly
(n=593, Source: 4Q2019 MDS and PBJ; RUGS-based)

Distribution of NF Staffing Levels (v. Regulatory Min) by Service Area (n=593)
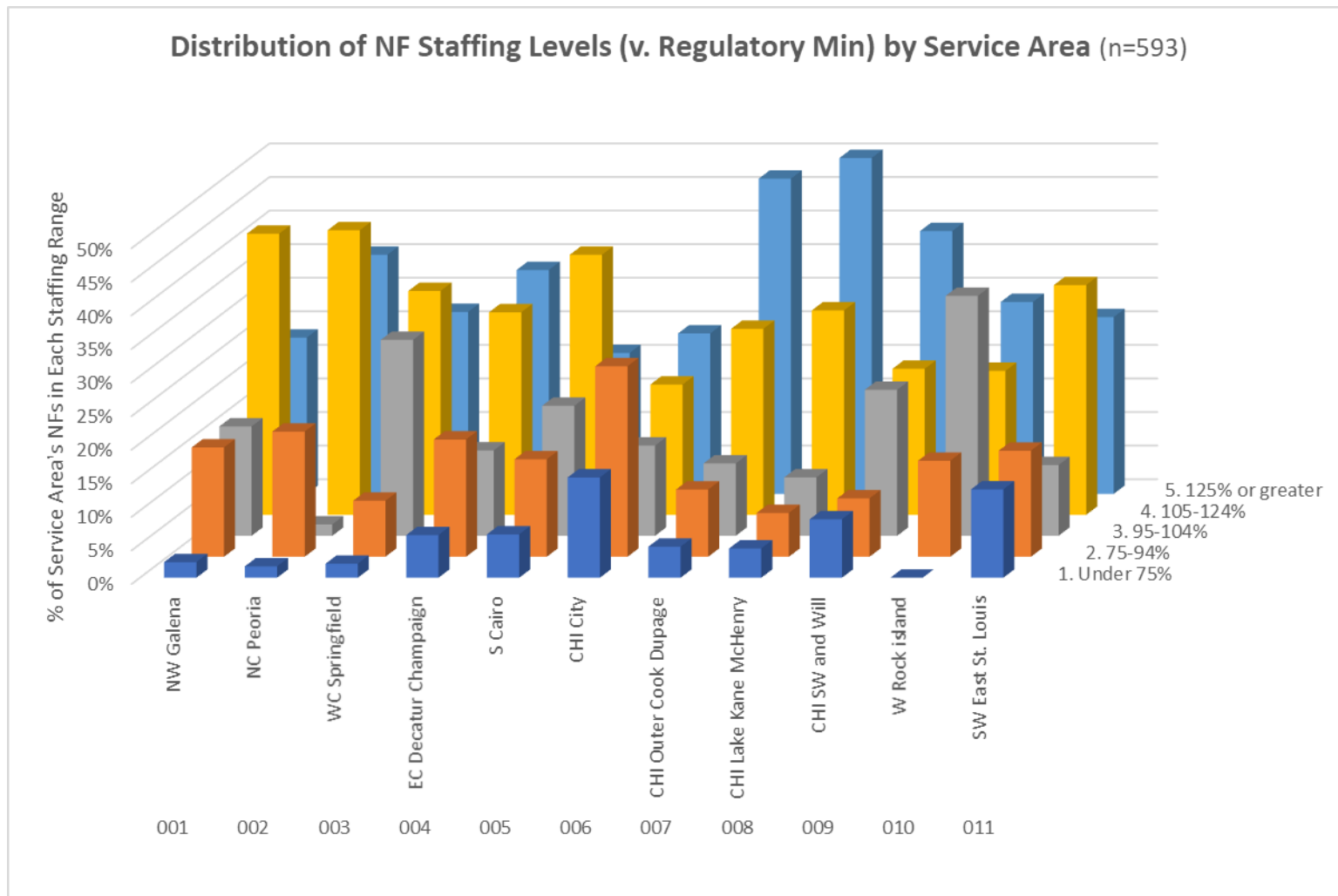
Characterizing staffing capacity

Describing staffing capacity requires selection of a target level of staffing. This analysis describes staffing capacity by comparing actual staffing to state regulatory minimums. To accommodate uncertainty over regulatory enforcement, differences in data sources, and variance in staffing reports, this analysis focuses on facilities falling at least 5% below regulatory standards for case mix-adjusted nursing hours per resident day.

- Extreme under-staffing v. the regulatory standard (category 1. Under 75%) is concentrated in 2 or 3 regions

- All 11 regions appear to have a meaningful percentage of their NFs performing at 5-25% *below* regulatory minimums (Category 2. 75-94%).

- This analysis may be biased due to missing data

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Distribution of Nurse Shortfall by Region
(includes NFs with shortfall only n=123, Sources: 4Q2019 MDS and PBJ)

Crude Estimate of Nurse FTE Shortfall v. Regulatory Minimums
(Source: 4Q2019 MDS and PBJ; 8 hours/day, 40 hours/week)
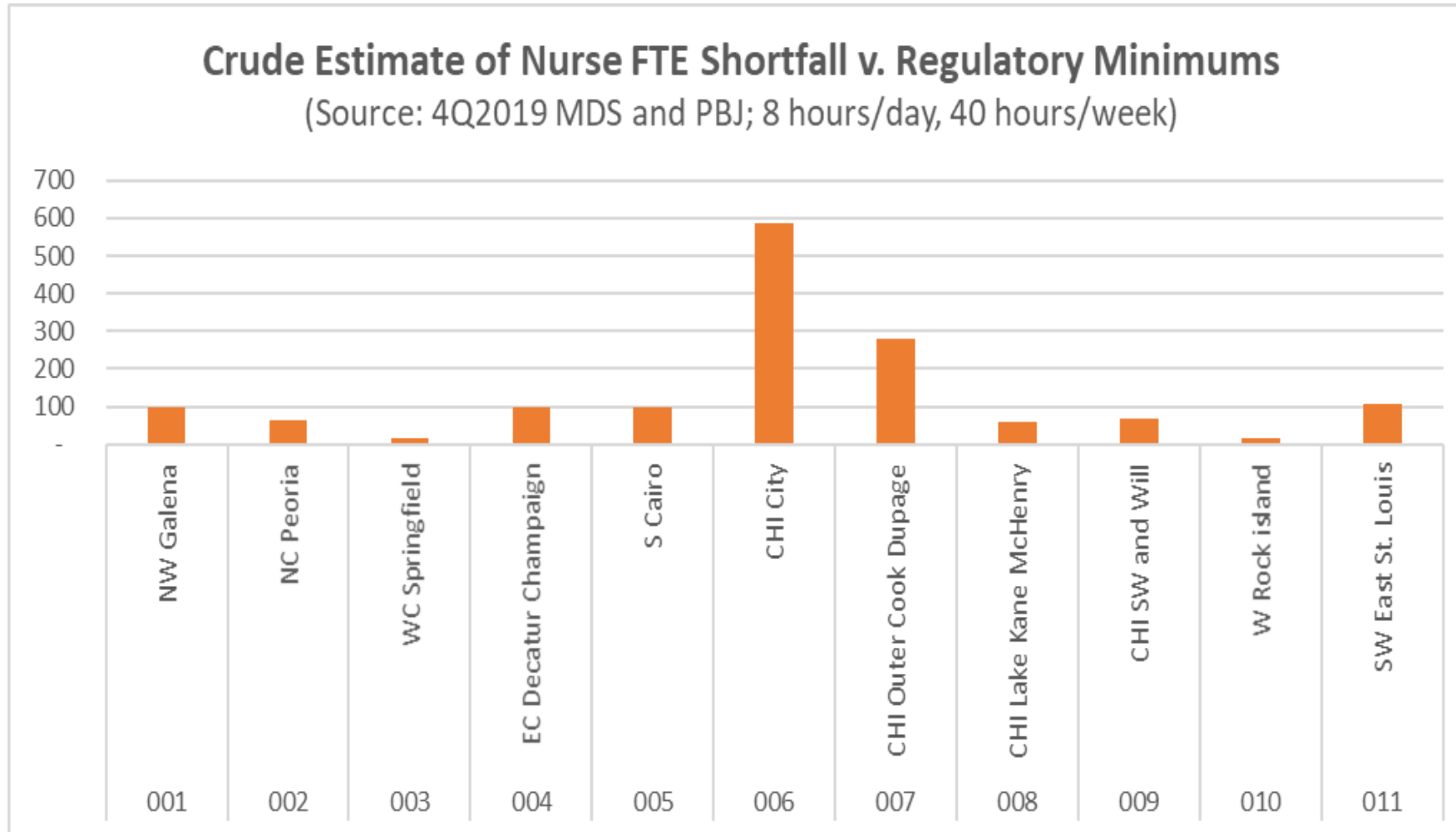
Staffing capacity can further be described by isolating those facilities falling below the regulatory threshold (here described as at least 5% below those minimums) and tabulating the total number of FTE represented by the regulatory shortfall in those facilities.

Statewide, the shortfall amounts to more than 1,500 FTE for the subset of NFs included in this analysis, and subject to the simple assumption of a 40-hour work week.

This analysis under-states the nursing shortfall by an unknown amount due to missing data (unmatched providers)

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    - ➢By race
  - ➢Analytic Plan
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Describing Bed & Room Capacity in IL Nursing Facilities

- This analysis characterizes NF bed capacity in terms of a key potential policy objective discussed in this reform process -- reducing the number of residents sharing NF rooms.

- Illinois has fewer than 43,000 licensed *rooms* but in 2019 had an average daily census of well over 60,000 ICF and SNF residents. As a result, this descriptive analysis characterizes capacity by modeling *double* room occupancy, a policy Medicare recently considered. Even a double occupancy limit could leave Illinois with a bed shortage, so this analysis measures the *level of dependency* on triple+ occupancy with the purpose of gauging the potential for progress.

- Double occupancy is estimated by comparing a facility's average daily census in 2019 to the facility's maximum possible census if no more than 2 people could be in any given room.

- Modeling a facility's maximum possible census at double room occupancy requires assumptions about underlying occupancy rates (currently 70% on average) in the context of a purely hypothetical 2-person per room limit. For this analysis an 85% occupancy standard is applied (*or actual 2019 occupancy, if greater*), but that modeling assumption remains arbitrary and is presented here to provoke discussion and feedback.

- In this analysis, "none" "low" "medium" and "high" levels of dependence on 3+ person rooms were determined by dividing facilities with *any* dependence on 3+ person rooms into 3 groups with 80-100 facilities each. This objective determined selection of cut-points at 5% slack, 0% slack, and a 10% shortfall.
  - The new cut-point at 5% slack reflects the presumed need for some 'cushion' in capacity to accommodate turnover and planning uncertainty
  - This modeling choice clearly interacts with the overall facility occupancy standard (e.g., 85% or 2019 if greater), and merits consideration

- No estimate of statewide dependence on 3+ person rooms is offered as the state lacks a clear policy target for reduced room occupancy.
  - The LTC industry will likely be reviewed as Covid's impact wanes and the nation take's stock of the implicit risk that residents face for 'such' pandemics.
  - Identifying a precise policy target for the physical design of nursing facilities, including room occupancy, may be beyond the reach of this Medicaid payment design process, though identifying opportunities for improvement may not.

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Characterizing Under-Staffing for Purposes of Distributional Analysis

- Describing staffing capacity requires selection of a target level of staffing.

- This analysis describes staffing capacity by comparing actual staffing to state regulatory minimums.

- To accommodate uncertainty over regulatory enforcement, differences in data sources, and variance in staffing reports, this analysis focuses on facilities falling at least 5% below regulatory standards for case mix-adjusted nursing hours per resident day.

- The regulatory definition of staffing sufficiency relies upon nursing home attribution of residents to either a "skilled" or "intermediate" level of care. This analysis applies MDS data to approximate that attribution, designating residents requiring less than 3.8 hours of nursing per day according to their RUGS 48 STRIVE study staffing target to the "intermediate" level of care and the remainder to the "skilled" level of care.

Sources of Data Used in This Analysis

- 2019 HFS Cost Reports
    - Primary source for Medicaid and total resident days and facility level occupancy
    - Initial source for reference pool of facilities
- 2019 IDPH Licensure Records
    - Licensed beds, by room
    - Secondary source for reference pool of facilities
- November 11, 2020 HFS MMIS Extract
    - Primary source for facility type
- 2019 Facilities Review Board Survey
    - Racial composition of nursing residents
    - Secondary source for facility type
    - Tertiary source for Medicaid and total resident days
- 4Q2019 MDS
    - RUGS case mix
- 4Q2019 COMPARE PBJ
    - Staffing levels
- January 2020 COMPARE Provider Info File
    - Secondary source for total resident days and facility level occupancy
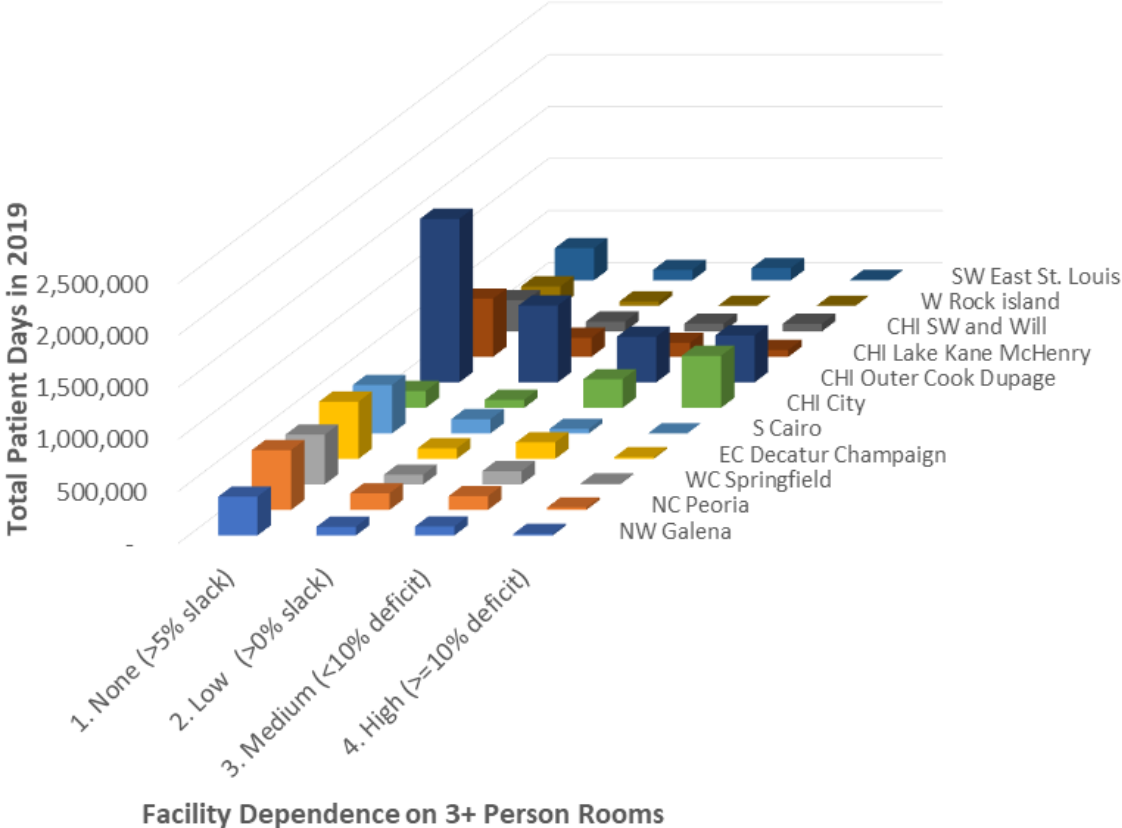
Distribution of Bed Capacity by Planning Region
n=708, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

Regional Distribution of Facilities by Dependence on 3+ Person Rooms
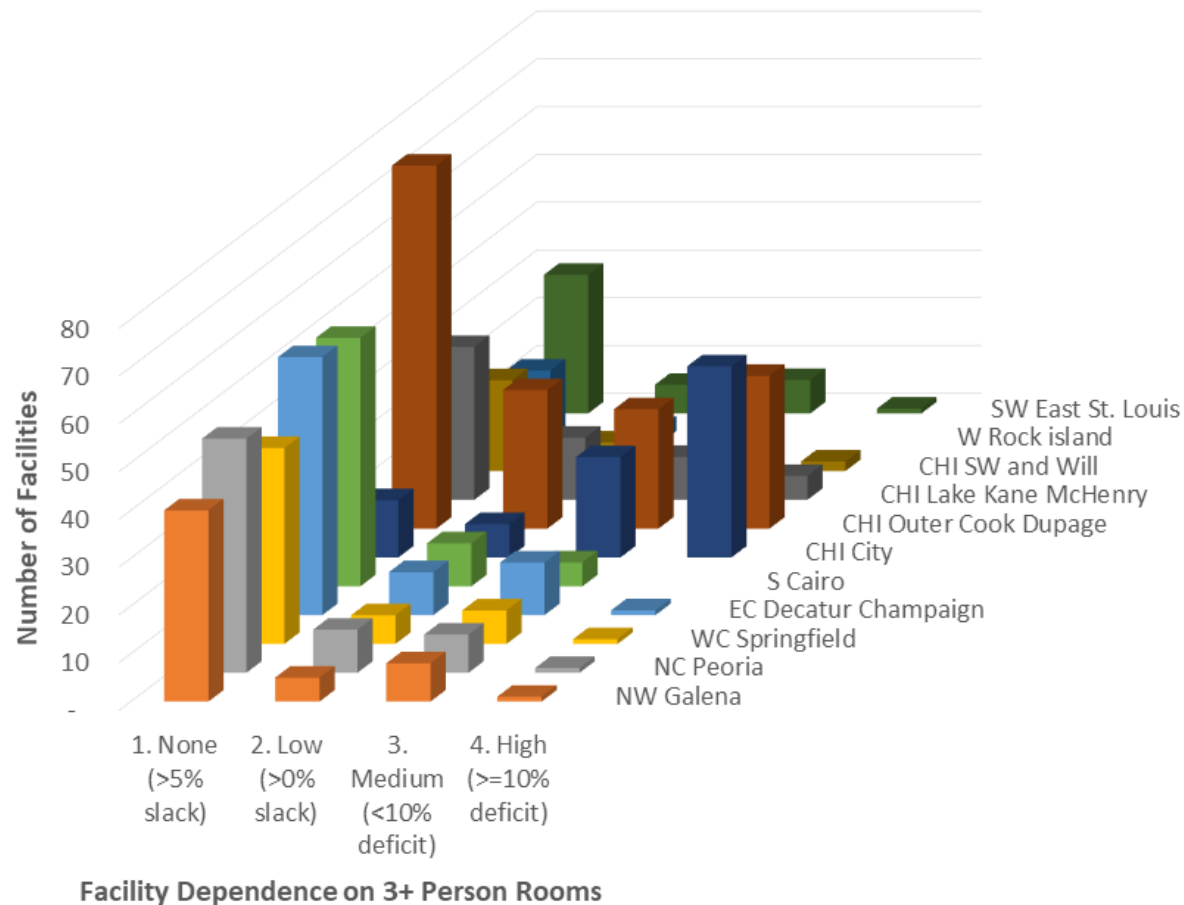
3+ person room dependence is highly concentrated in Chicago City and Chicago SW and Will (which comprise 74% of patient days in dependence categories 3 and 4)

Distribution of Bed Capacity by Planning Region
n=708, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

Regional Distribution of Total Patient Days by their Facility's Dependence on 3+ Person Rooms
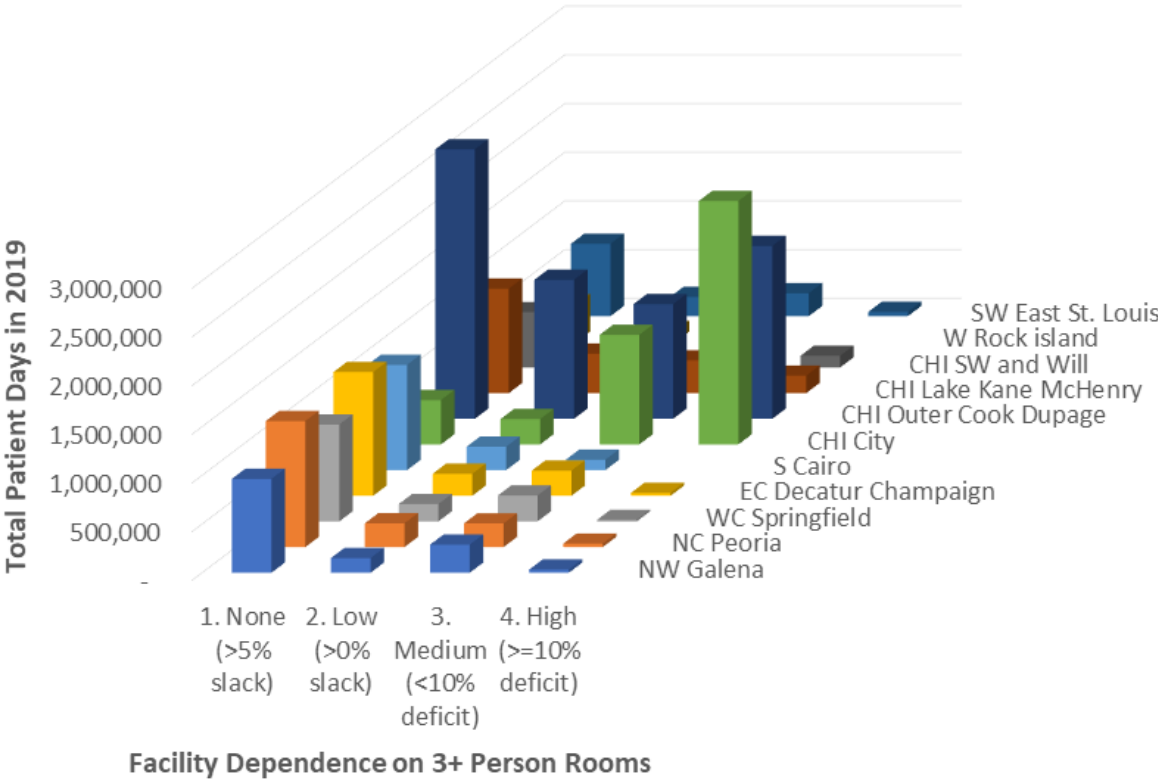
...and this is true for both Medicaid

Distribution of Bed Capacity by Planning Region
n=708, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

…and other payers

Regional Distribution of Medicaid Patient Days by their Facility's Dependence on 3+ Person Rooms
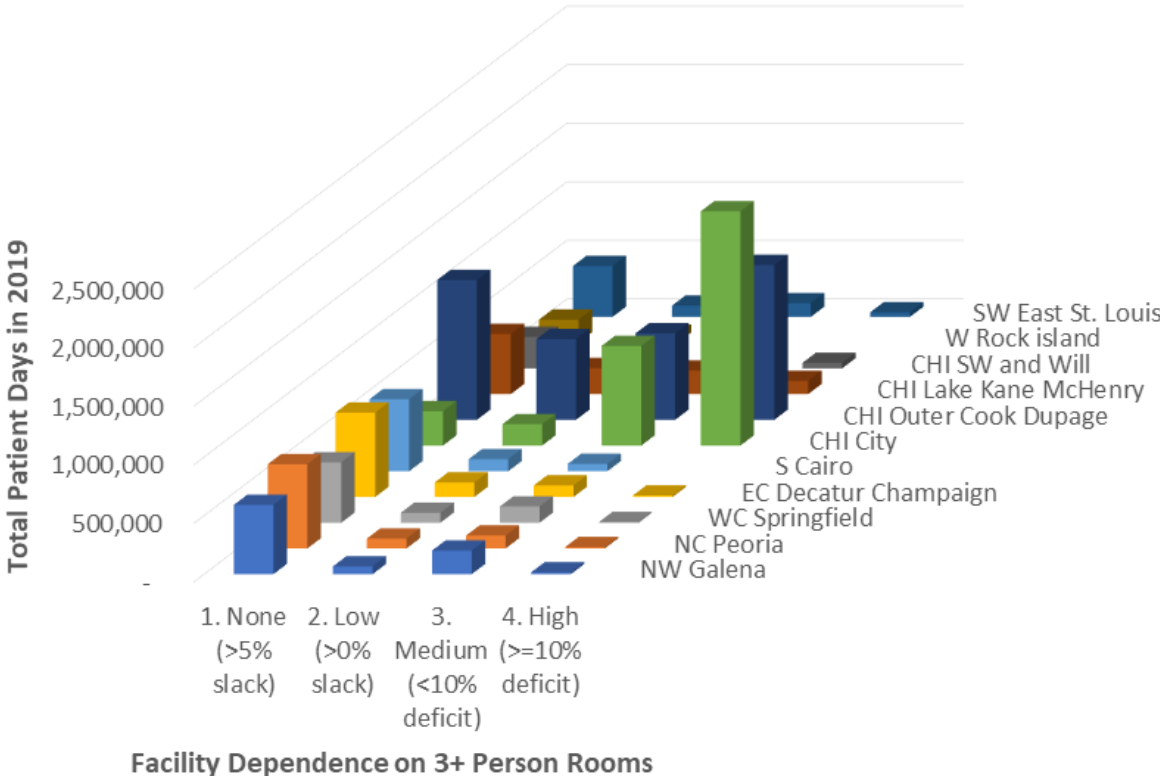
Distribution of Bed Capacity by Planning Region
n=701, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

The two key Chicago area regions have facilities with bed shortages <u>and</u> bed surpluses under the modeling assumptions of this analysis, e.g., 85% occupancy (or greater if observed in 2019).

The next two charts examine net bed capacity on a region-wide basis…

Distribution of Bed Capacity by Planning Region
n=701, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

Regional Bed Surplus (deficit) Under a 2-Beds/Room Max @ Existing Occupancy
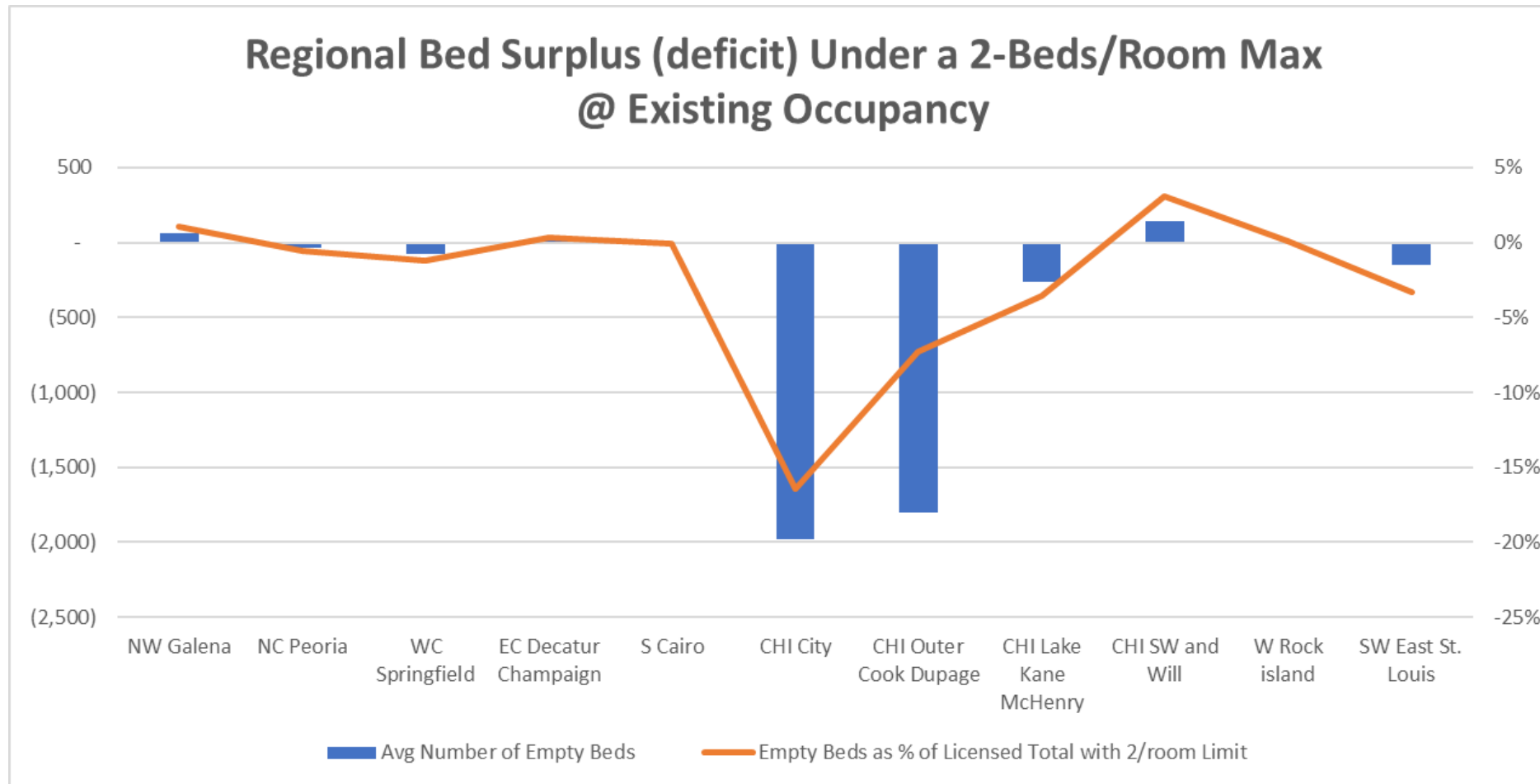
At existing levels of facility-wide occupancy, a 2-person per room limit would leave every region at risk of a bed shortage and would leave the two key Chicago regions several thousand beds short, in aggregate.

Distribution of Bed Capacity by Planning Region
n=701, Sources: 2019 CRs; IDPH Licensure records; Review Board HSAs

Regional Bed Surplus (deficit) Under a 2-Beds/Room Max @ 85% Occupancy (or existing if higher)

Legend: Avg Number of Empty Beds — Empty Beds as % of Licensed Total with 2/room Limit
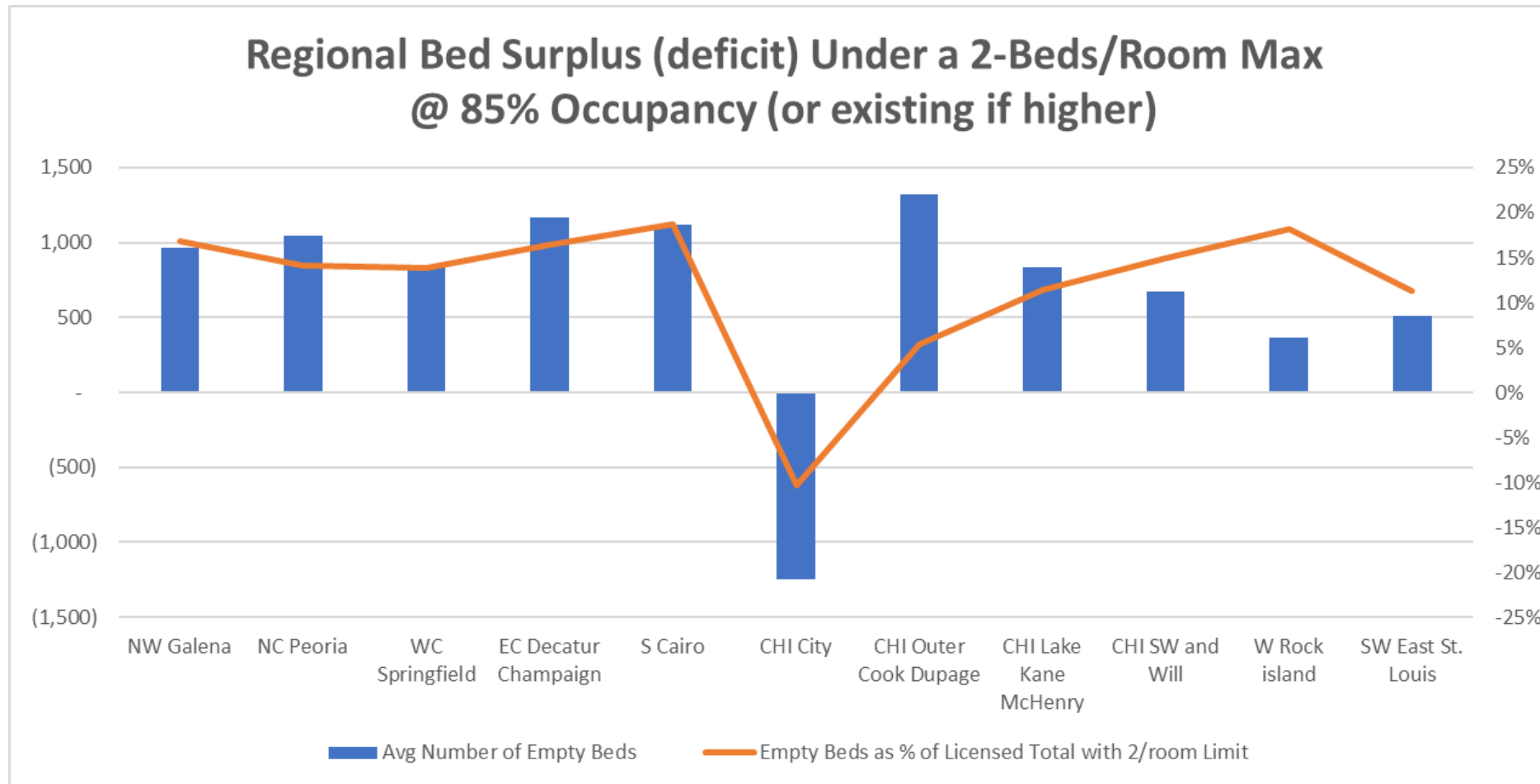
At higher levels of occupancy, fewer regions would be at risk of a capacity constraint *in the aggregate*

- Chicago City would still have a 1,200+ bed shortage
- Chicago SW and Will would have only a 5% cushion

This regional analysis is illustrative only:

- Capacity is best measured at the resident and facility level
- Regional boundaries do not imply preferred levels of access

Bed v. Staffing Capacity in IL Nursing Facilities
(n=651, Sources: 4Q2019 PBJ&MDS; 2019 CRs; IDPH Licensure Records)

Distribution of NFs by Emerging Policy Priorities
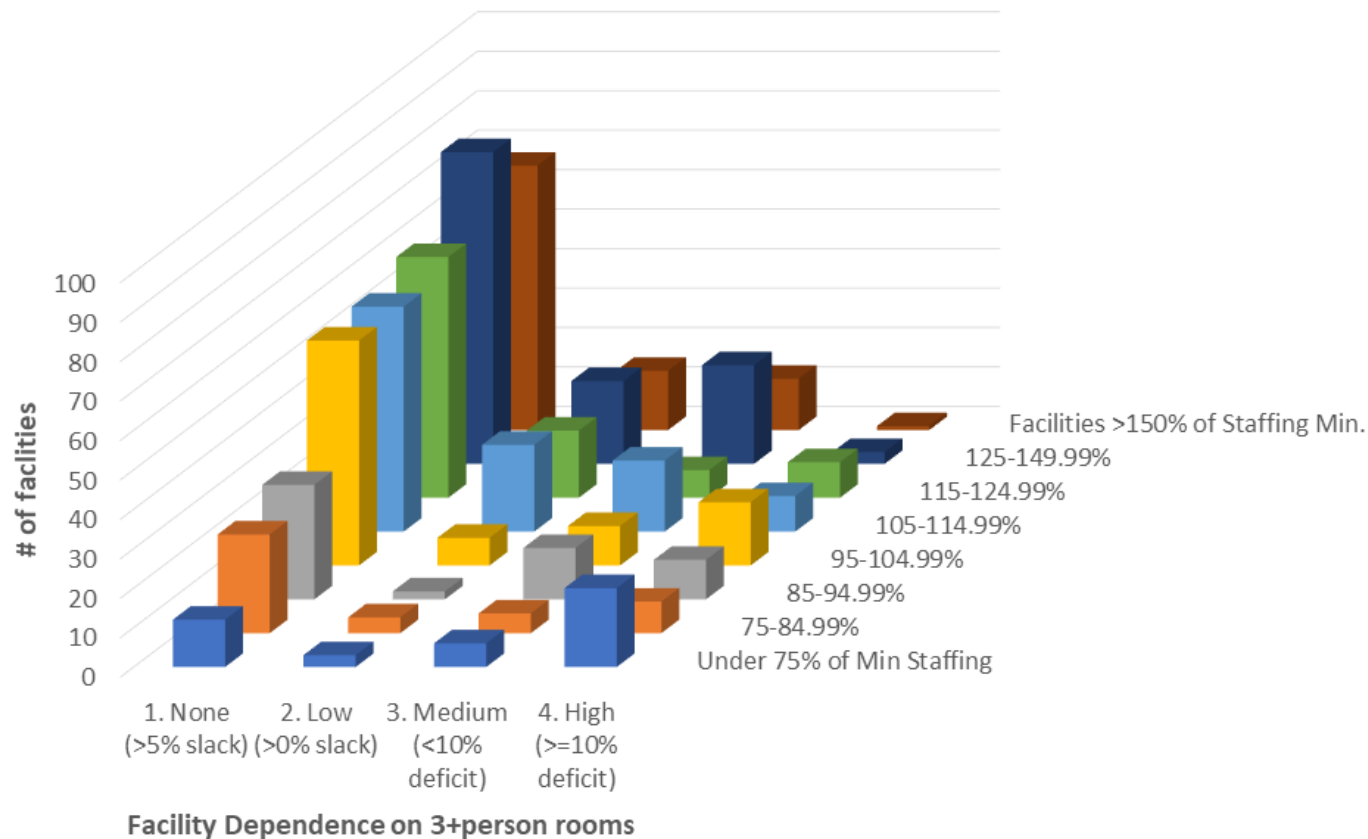
This analysis focuses on triple+ room occupancy and under-staffing v. regulatory standards, two emerging policy priorities for Medicaid payment reform.

62 facilities are both under-staffed and have either a medium or high level of dependence on rooms with 3+ residents.

That total represents 9.5% of the 651 facilities with sufficient data to be included in this analysis.

Bed v. Staffing Capacity in IL Nursing Facilities
(n=651, Sources: 4Q2019 PBJ&MDS; 2019 CRs; IDPH Licensure Records)

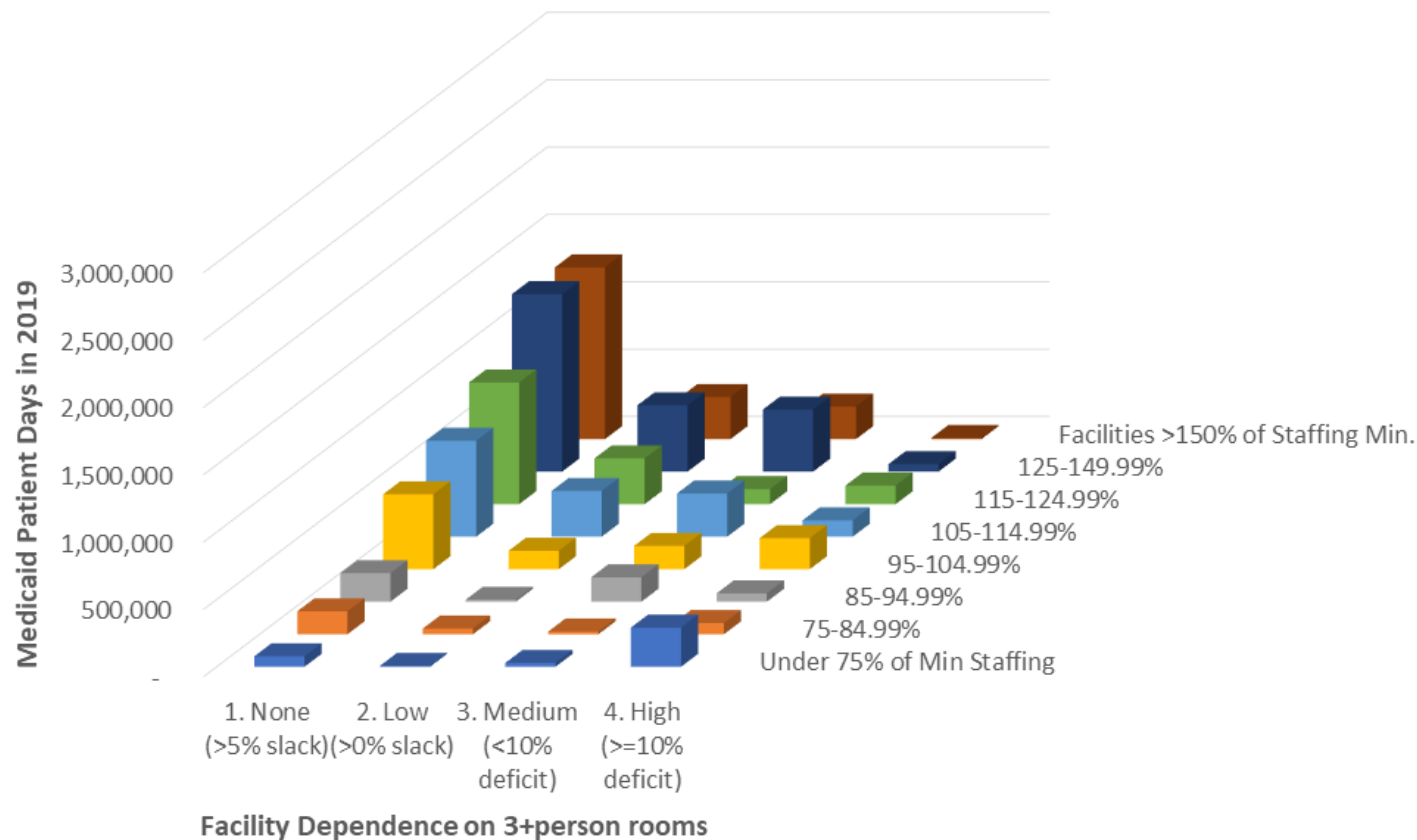Distribution of Medicaid Patient Days by Emerging Policy Priorities
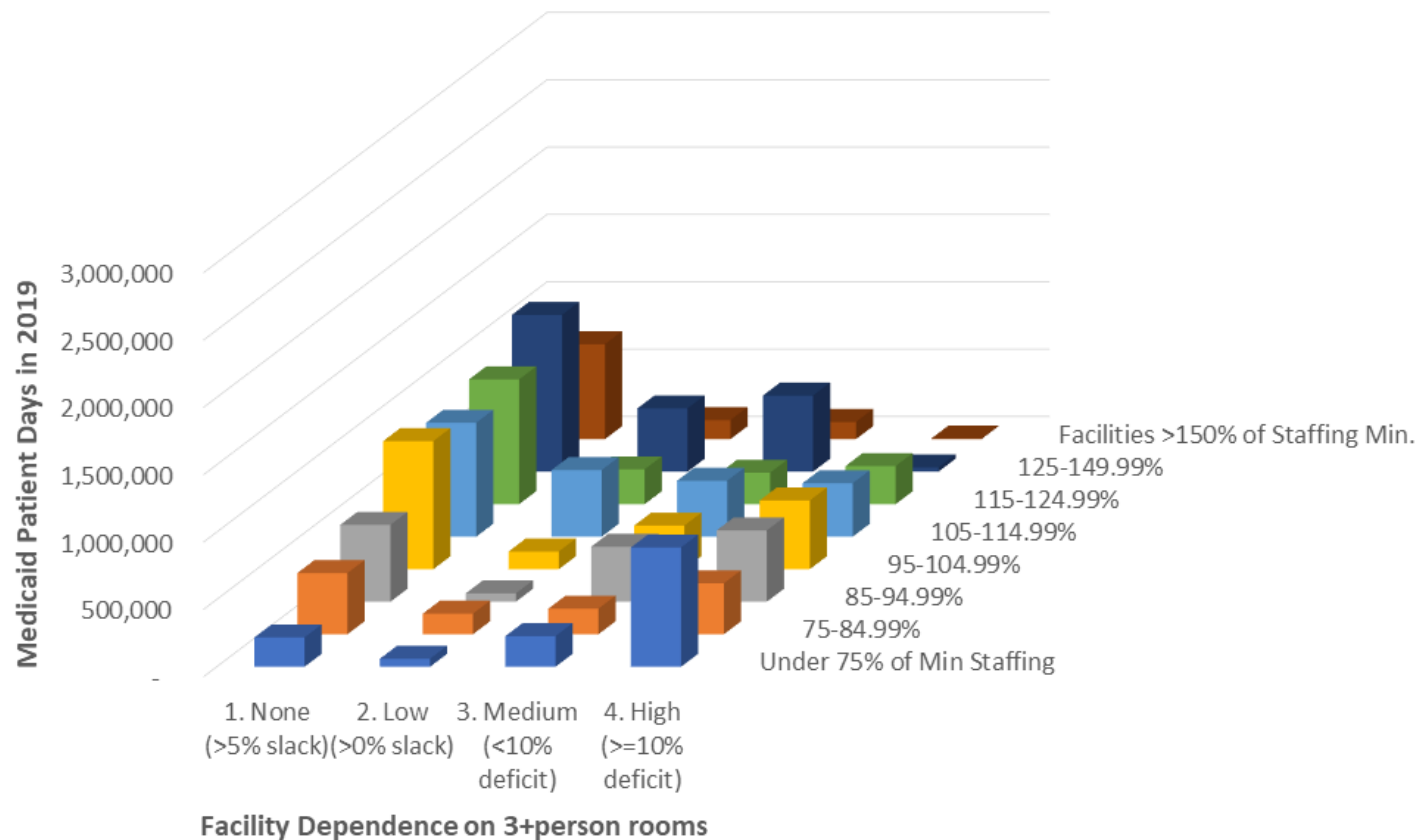
Nearly half (46%) of Medicaid resident days are in sufficiently–staffed facilities with little or no dependence on 3+ person rooms.

Bed v. Staffing Capacity in IL Nursing Facilities
(n=651, Sources: 4Q2019 PBJ&MDS; 2019 CRs; IDPH Licensure Records)

Non-Medicaid Patient Days by Emerging Policy Priorities

More than two-thirds (68%) of non-Medicaid resident days are in sufficiently – staffed facilities with little or no dependence on 3+ person rooms.

While there are 1.4 times as many Medicaid resident days as non-Medicaid resident days in the data used in this analysis, there are 3.9 times as many Medicaid resident days in facilities that are both under-staffed and at least somewhat dependent on 2+ person rooms.
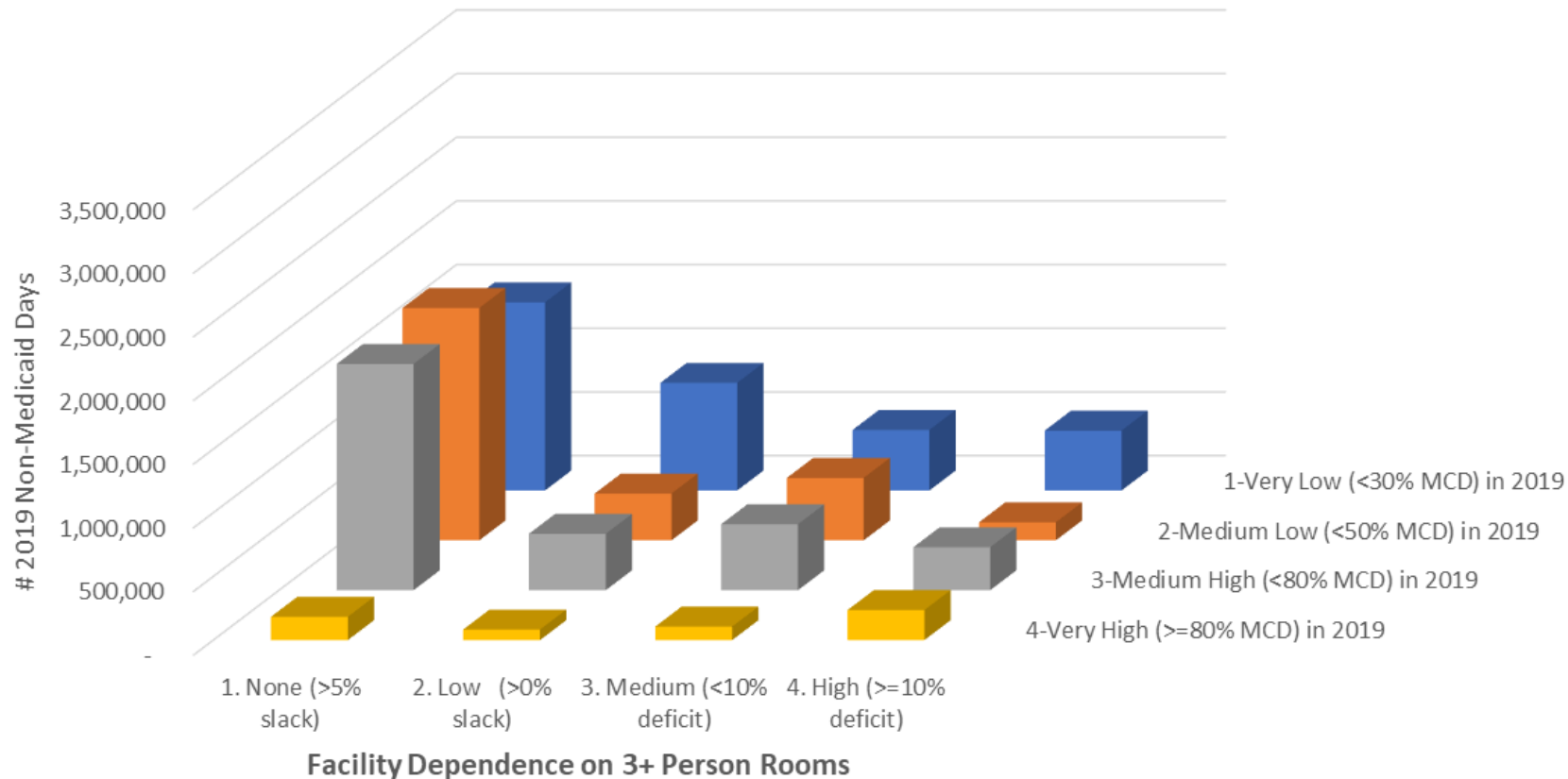
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How Closely is a Facility's Medicaid Payer Concentration Related to Room-Level Occupancy?
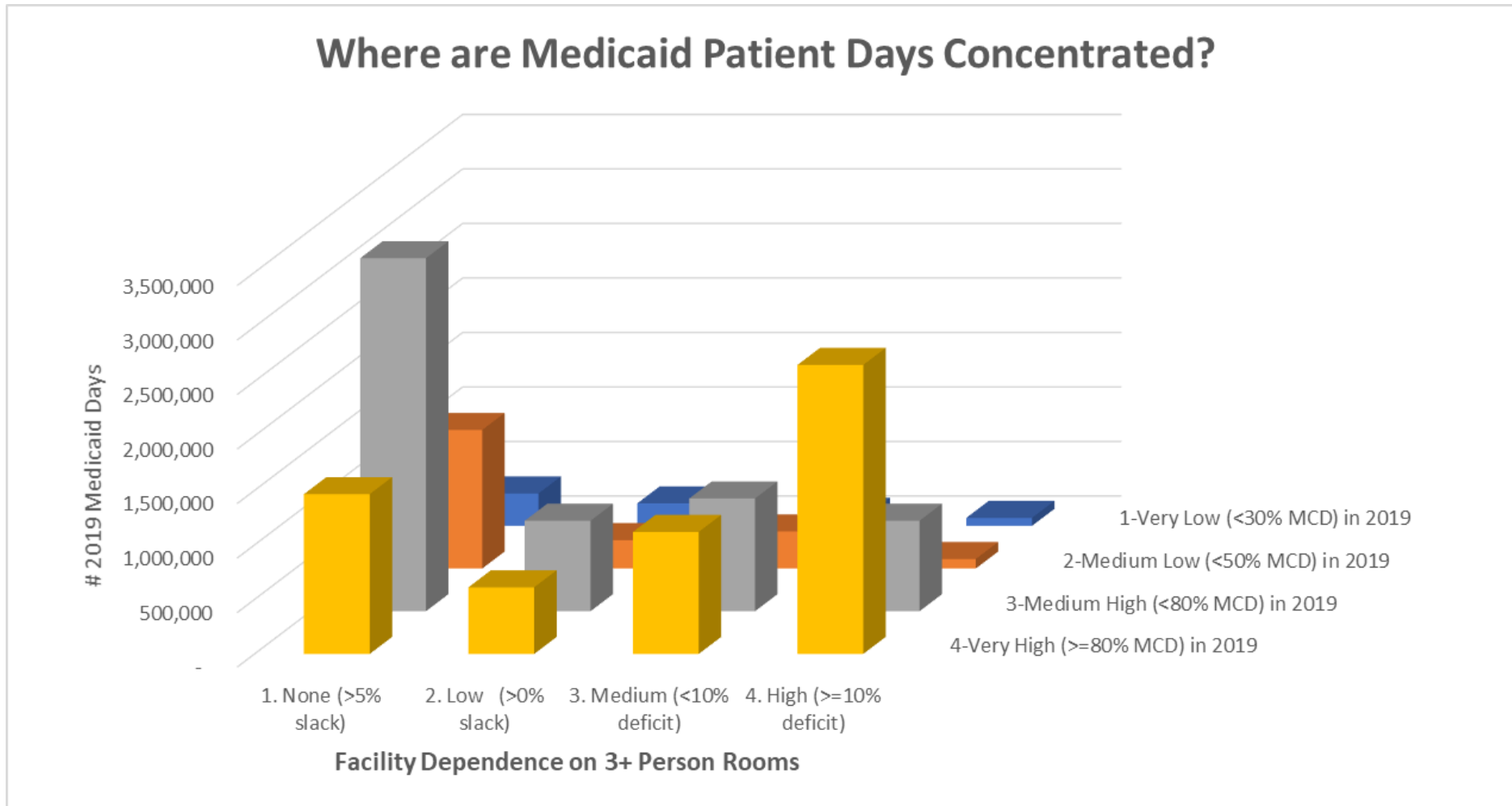
Where are Medicaid Patient Days Concentrated?

How Closely is a Facility's Medicaid Payer Concentration Related to Room-Level Occupancy?

Where are Non-Medicaid Patient Days Concentrated?

1-Very Low (<30% MCD) in 2019
2-Medium Low (<50% MCD) in 2019
3-Medium High (<80% MCD) in 2019
4-Very High (>=80% MCD) in 2019

2019 Non-Medicaid Days

1. None (>5% slack)
2. Low (>0% slack)
3. Medium (<10% deficit)
4. High (>=10% deficit)

Facility Dependence on 3+ Person Rooms

Much of the disparity in Medicaid v. Non-Medicaid resident risk of 3+ person rooms is concentrated in the 47 NFs classified at the highest levels of both Medicaid payer % and 3+ person room dependence.

How Closely is a Facility's Medicaid Payer Concentration Related to Room-Level Occupancy?

3+ Bed Dependence for Medicaid v. Non-Medicaid Days
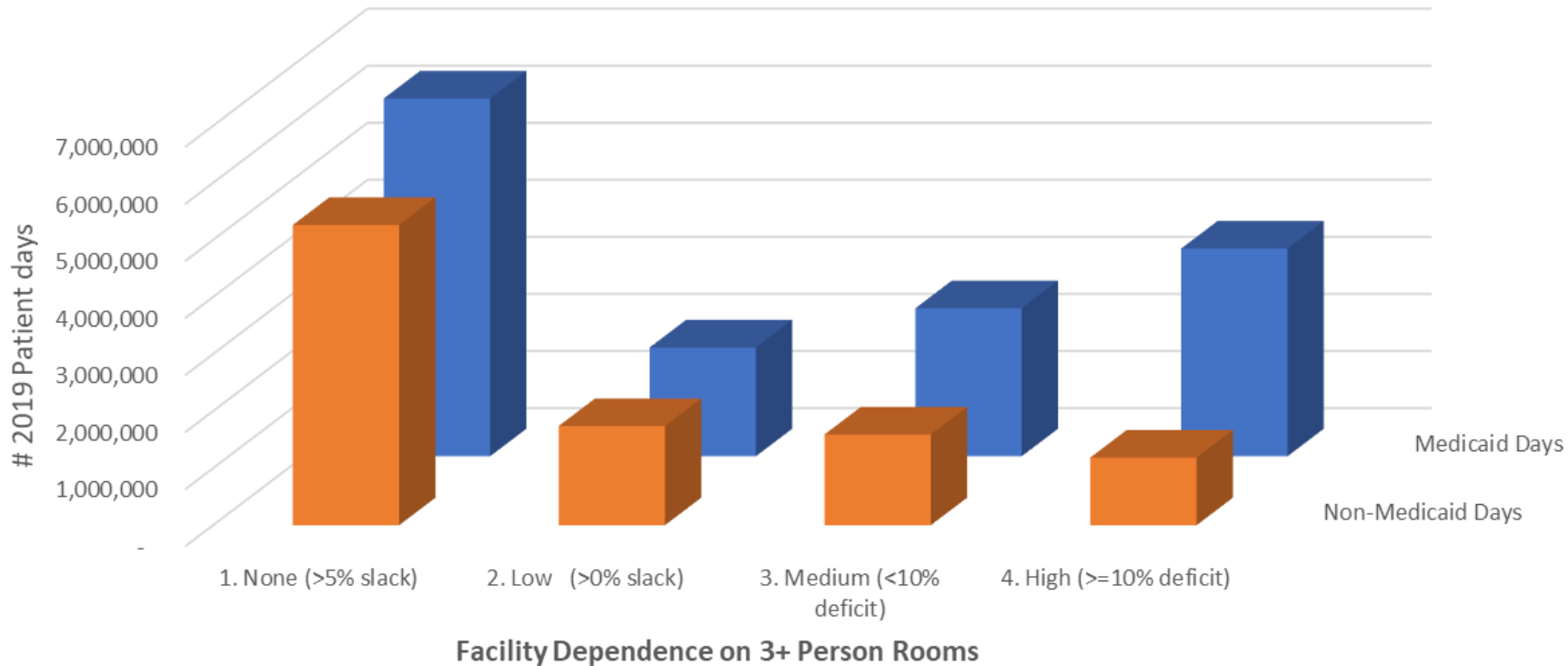
Medicaid residents comprise about 60% of total resident days statewide in this data, but comprise
- 62% of resident days in facilities with medium levels of dependence on 3+ person rooms
- 75% of resident days in facilities with the highest level of 3+ person room dependence

How Closely is a Facility's Medicaid Payer Concentration Related to Emerging Policy Priorities?

Distribution of Nursing Facilities by Emerging Policy Priorities and % Medicaid (days)
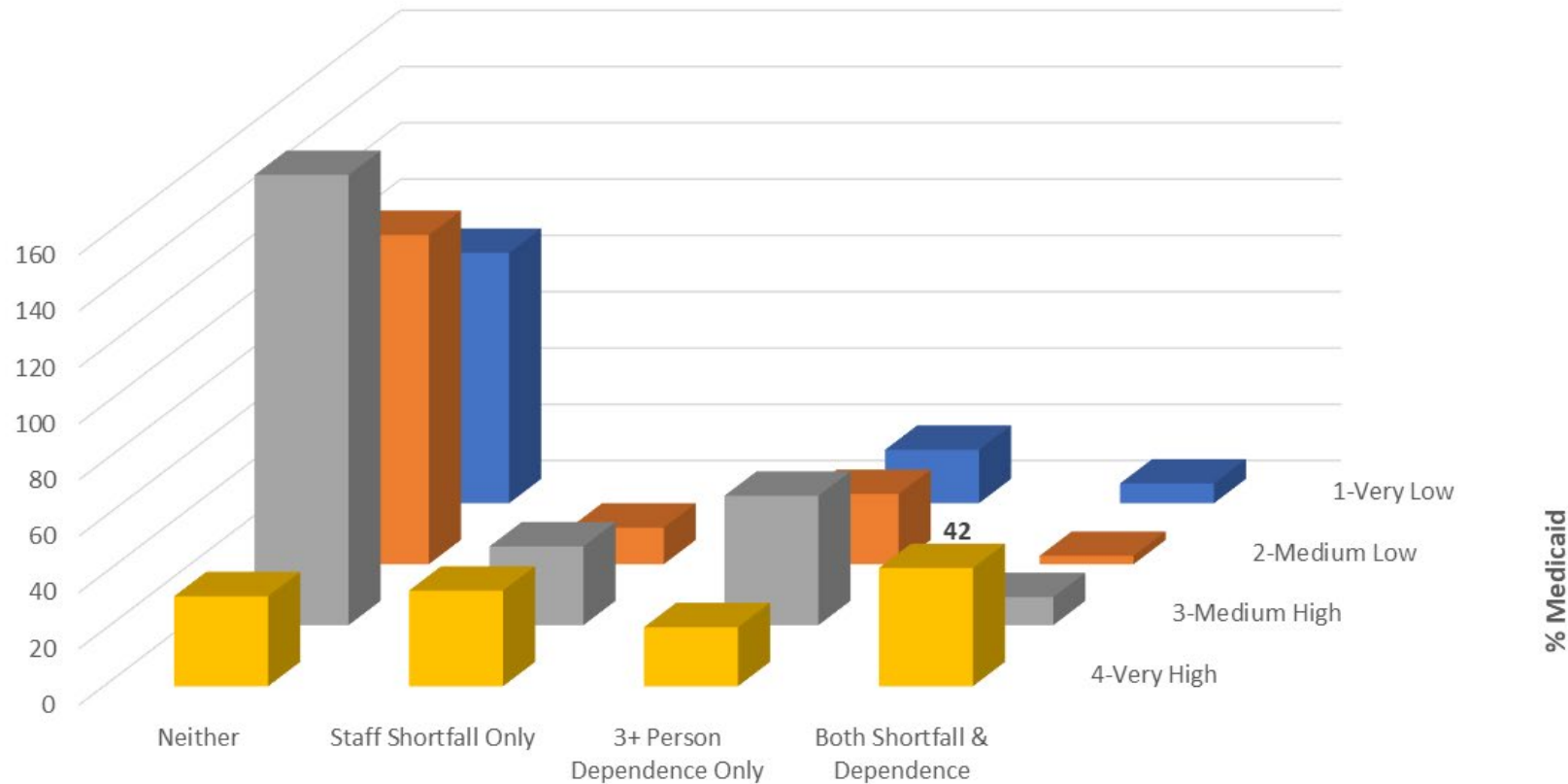
The majority (68%) of facilities with both a staffing shortfall and dependence on 3+ person rooms are in the highest category of Medicaid payer mix (>=80%), while only 8% of facilities in this class have neither policy concern.

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What is the Racial Distribution Across Facilities Classified by the Two Emerging Policy Priorities?

### 3+ Bed Dependence for Black or African-American Residents v. Other Residents
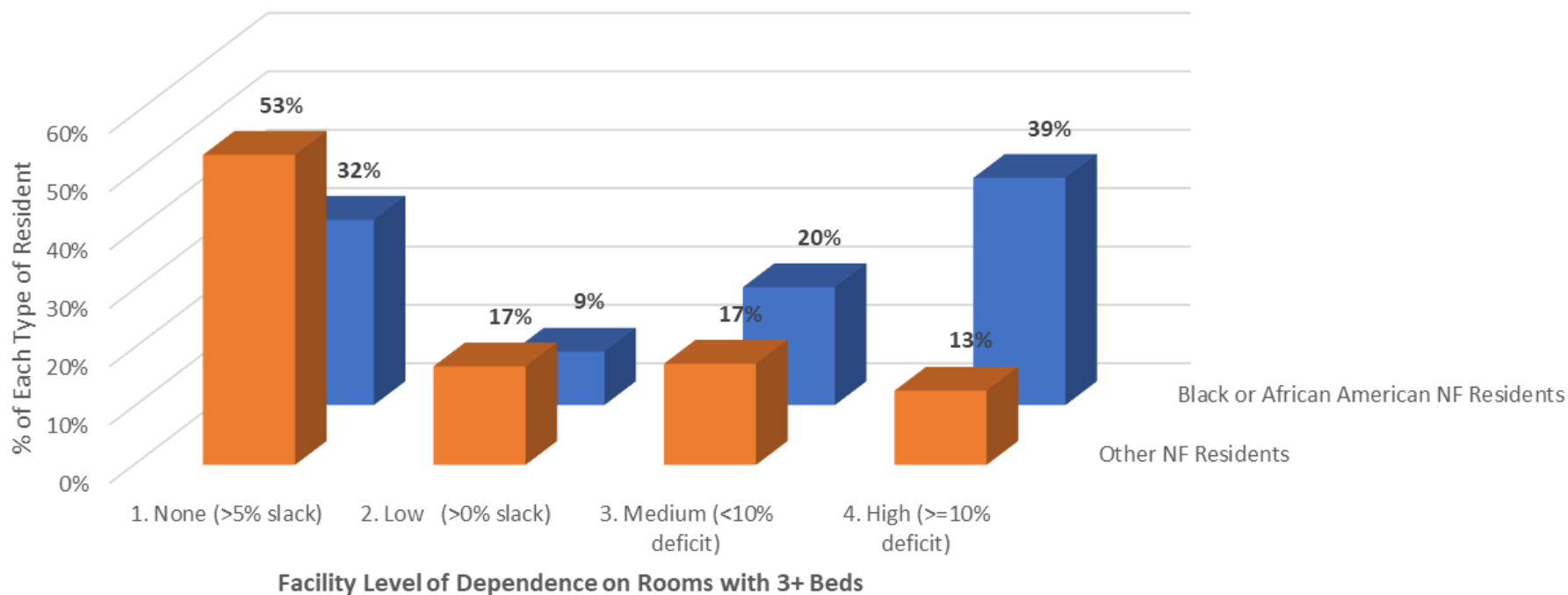
A majority (59%) of BOAA resident days are in facilities in the top two categories of 3+ room dependence, i.e., at least somewhat dependent on 3+ person rooms

A *larger* majority (70%) of *non*-BOAA resident days are in facilities with no or very low dependence on 3+ person rooms.

*2019 Review Board racial composition applied to 2019 Cost Report or 2019 Review Board daily census

What is the Racial Distribution Across Facilities Classified by the Two Emerging Policy Priorities?

Nursing Levels for Black or African-American Residents v. Other Residents
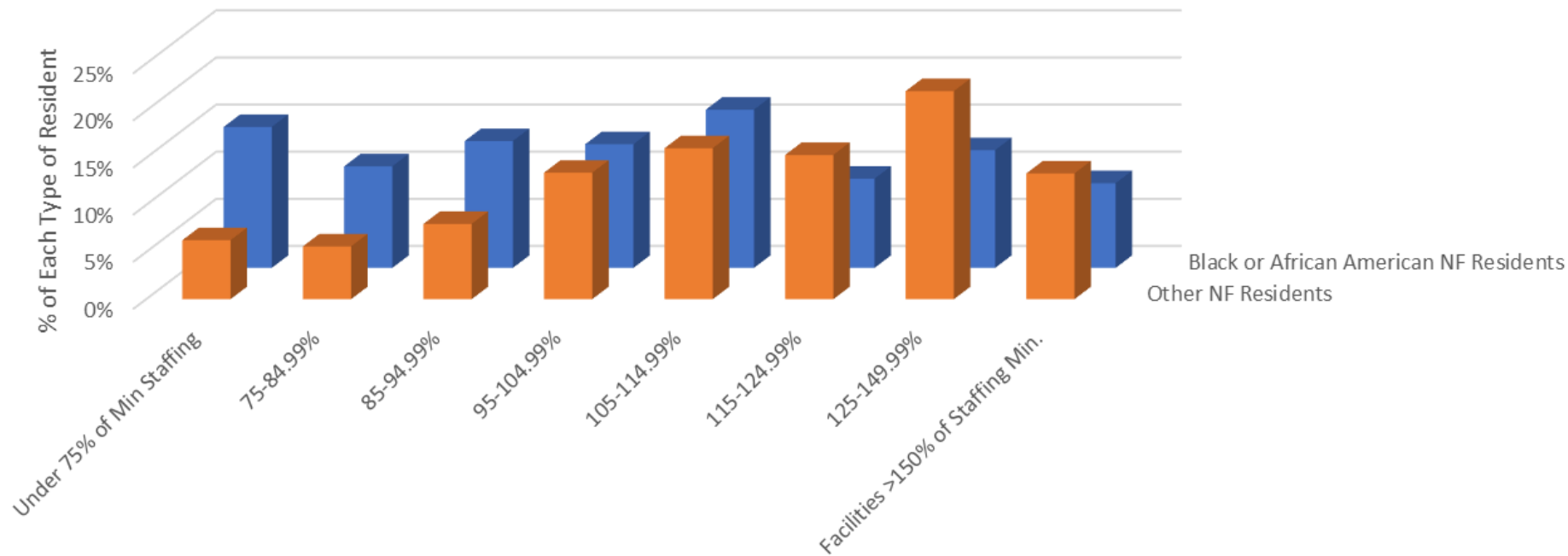
BOAA resident days are significantly more concentrated in under-staffed facilities.

*2019 Review Board racial composition applied to 2019 Cost Report or 2019 Review Board daily census
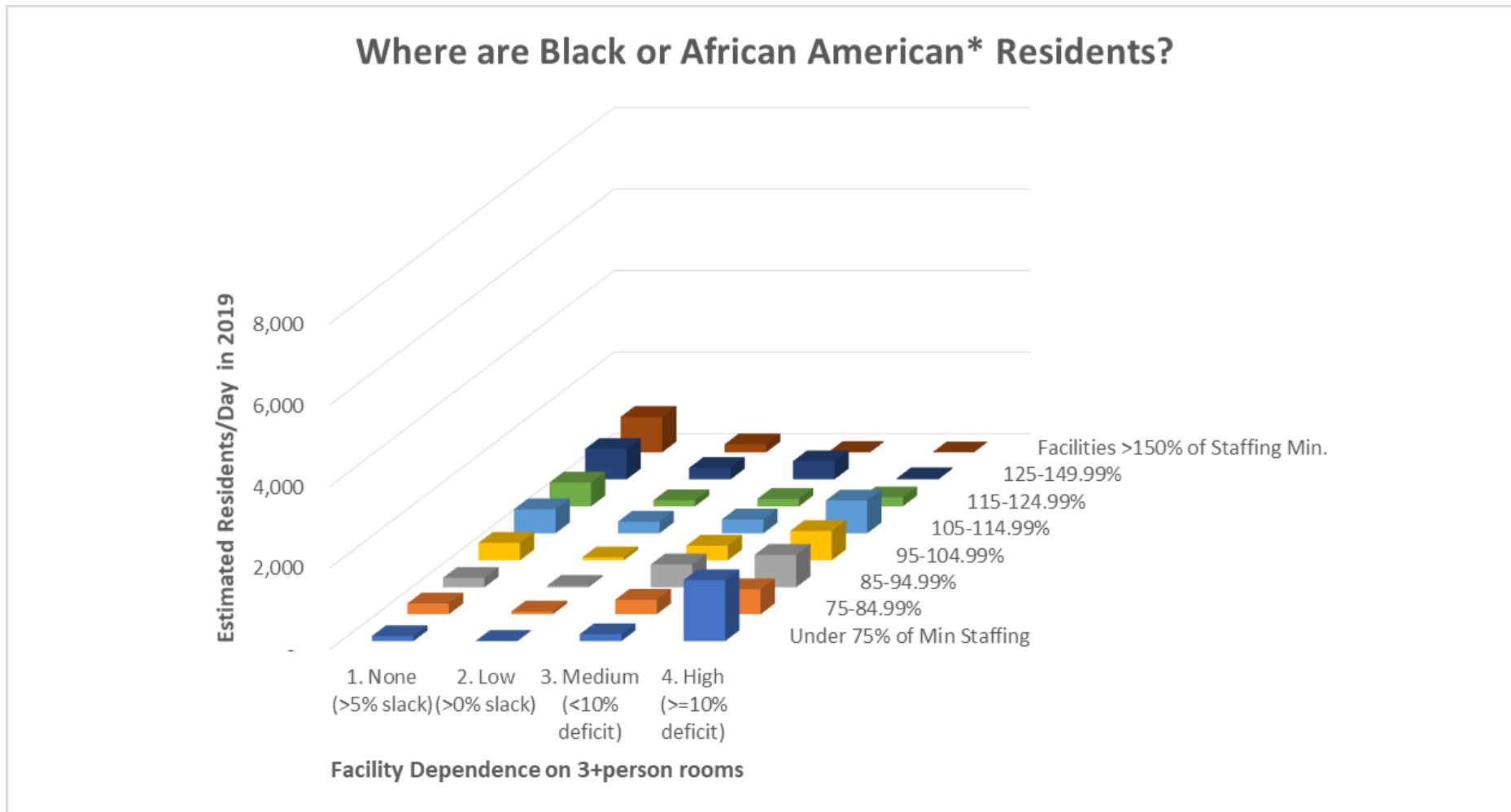
What is the Racial Distribution Across Facilities Classified by the Two Emerging Policy Priorities?

Distribution of Nursing Facilities by Emerging Policy Priorities and Racial Concentration
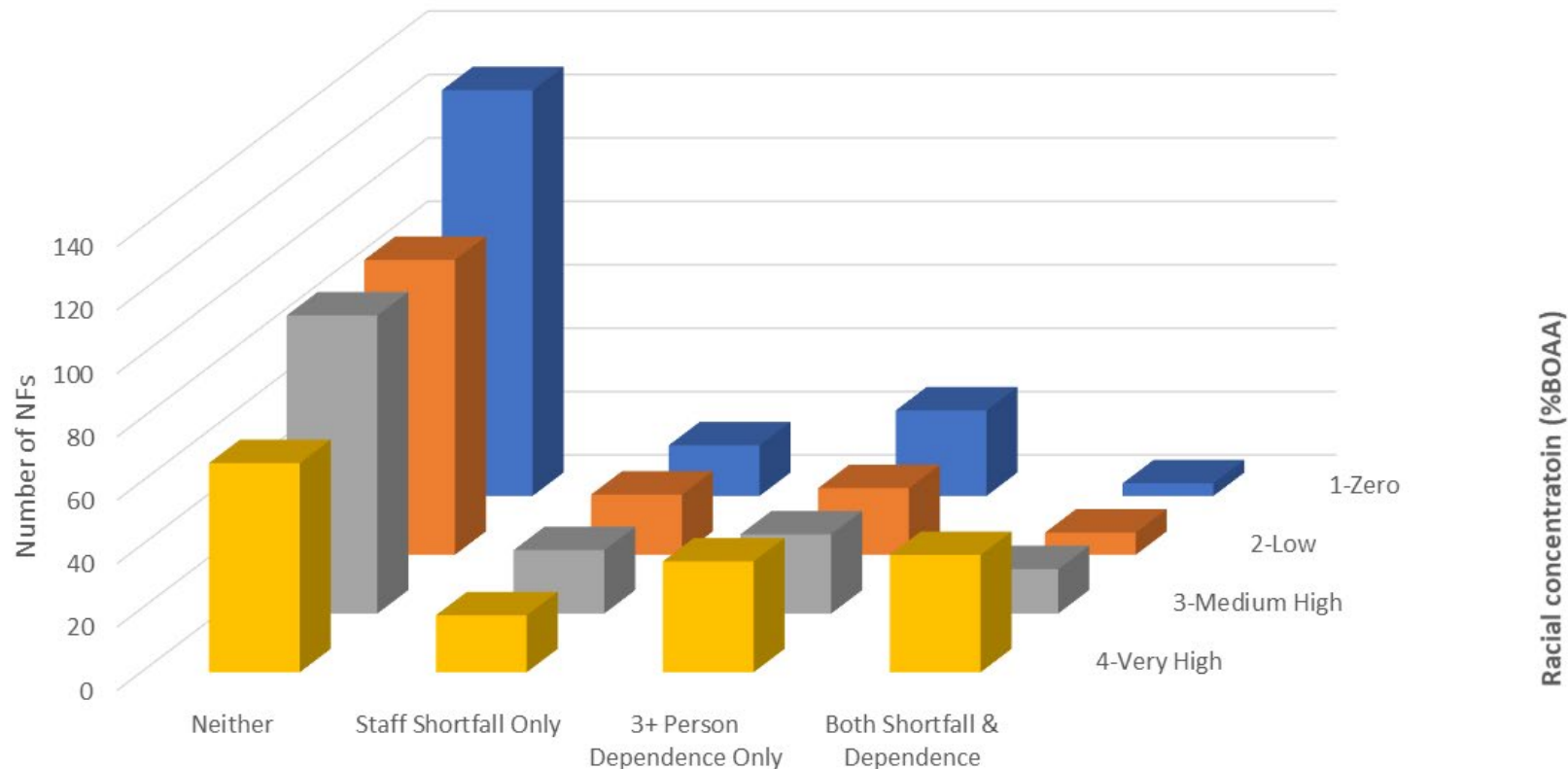
Facilities with the highest concentrations of BOAA residents are
- 4.4 times as likely as other facilities to have *both* staffing shortfalls *and* a dependence on 3+ person rooms, and
- 1.4 times as likely to have only a dependence on 3+ person rooms

What is the Racial Distribution Across Facilities Classified by the Two Emerging Policy Priorities?

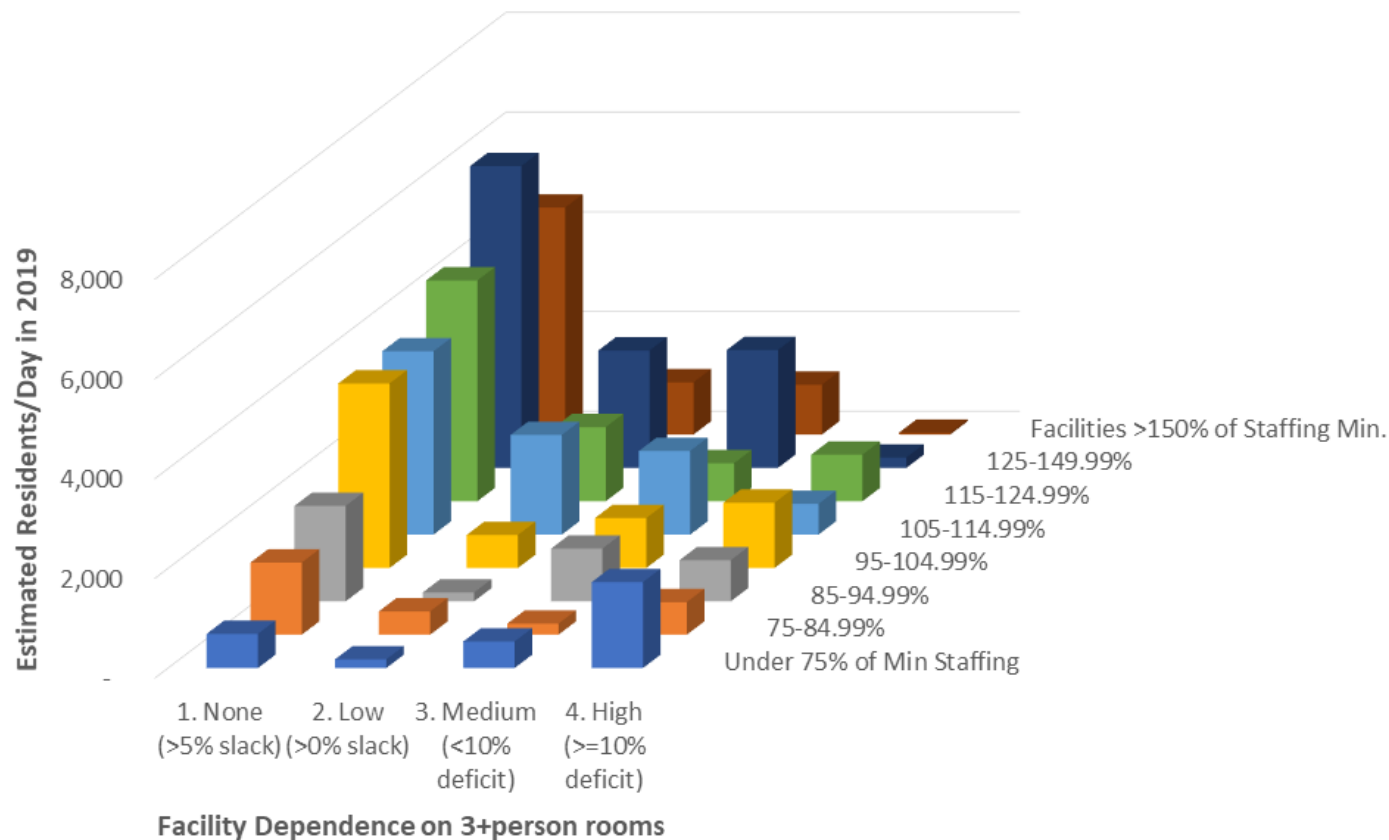Where are Black or African American* Residents?

Only one-third (35%) of BOAA residents are in sufficiently – staffed facilities with little or no dependence on 3+ person rooms.

[also compare this to the 49% of *Medicaid* resident days in facilities with sufficient staffing and little or no 3+ person room dependence]

*2019 Review Board racial composition applied to 2019 Cost Report or 2019 Review Board daily census

What is the Racial Distribution Across Facilities Classified by the Two Emerging Policy Priorities?

Where are Non-African American or Black* Residents?

Estimated Residents/Day in 2019

Facilities >150% of Staffing Min.
125-149.99%
115-124.99%
105-114.99%
95-104.99%
85-94.99%
75-84.99%
Under 75% of Min Staffing

1. None (>5% slack) 2. Low (>0% slack) 3. Medium (<10% deficit) 4. High (>=10% deficit)

Facility Dependence on 3+person rooms

Nearly two-thirds (60%) of non-BOAA resident days are in sufficiently – staffed facilities with little or no dependence on 3+ person rooms.

While there are 4.1 times as many *non*-BOAA resident das overall, there are only 1.25 times as many non-BOAA resident days in facilities that are both under-staffed and at least somewhat dependent on 2+ person rooms.

*2019 Review Board racial composition applied to 2019 Cost Report or 2019 Review Board daily census

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Characteristics Included in Analysis in NF Payment Reform

Staffing
- v. Licensure
- v. STRIVE target
- Staffing STARs
- Nurse v. CNA

Infrastructure
- Construction age
- Bed concentration
- Dependence on 3+ rooms
- Square Feet density

Resident Characteristics
- Admission restrictions
- Payer Mix
- Race
- Case mix and specialization
- BH/SMI concentrations

Market Structure
- Ownership
- Region
- Classification

Infection control
- STAR Inspection
- COVID Wave 1

Quality
- Inspection STARs
- Long Stay STARs
- Short Stay STARs

Rebalancing
- Source of admission

What else needs to be added to this list?

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  - ➢Questions and Comments on Capacity
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  - ➢Analysis of Emerging Policy Priorities
    - ➢By payer
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