



~20%

of modifiable health outcomes is determined by Medical Care

~80%

derive from Social Determinants of Health



Americans spend on average
87% of their time indoors

The very young, older adults and
people with disabilities spend
even more time indoors,
primarily at home



NCSHA Housing Credit Connect 2019:

Achieving Affordability and Healthy Housing Through Project Design

June 14, 2019

PRESENTERS



Sherry Ahrentzen PhD, Assoc AIA
Shimberg Center for Housing Studies, University of Florida
College of Design, Construction and Planning

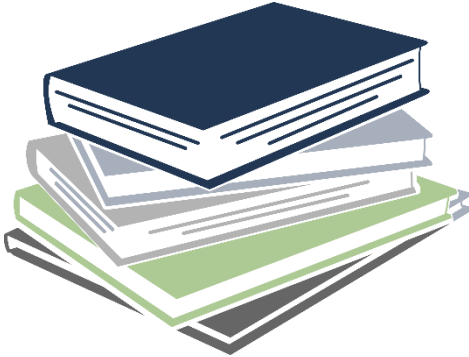


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Assistance from **Ali Momen-Haravi** (University of Illinois at Urbana-Champaign) +
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Support for this research was provided by the Robert Wood Johnson Foundation. The views expressed here do not necessarily reflect the views of the Foundation.

CONTENT ANALYSIS



EGC
NHHS
WELL
Journals



59 Items



50 QAPs
and ADs



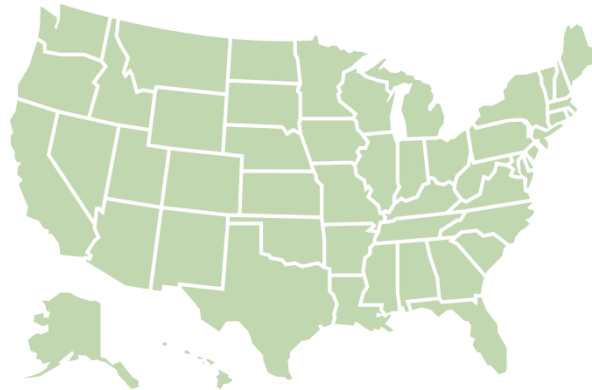
HFA SURVEY

1



Findings from
Content Analysis
Advisory Team

2



68% Response Rate

3



CASE STUDIES



GBC
QAP
AD



Select
States

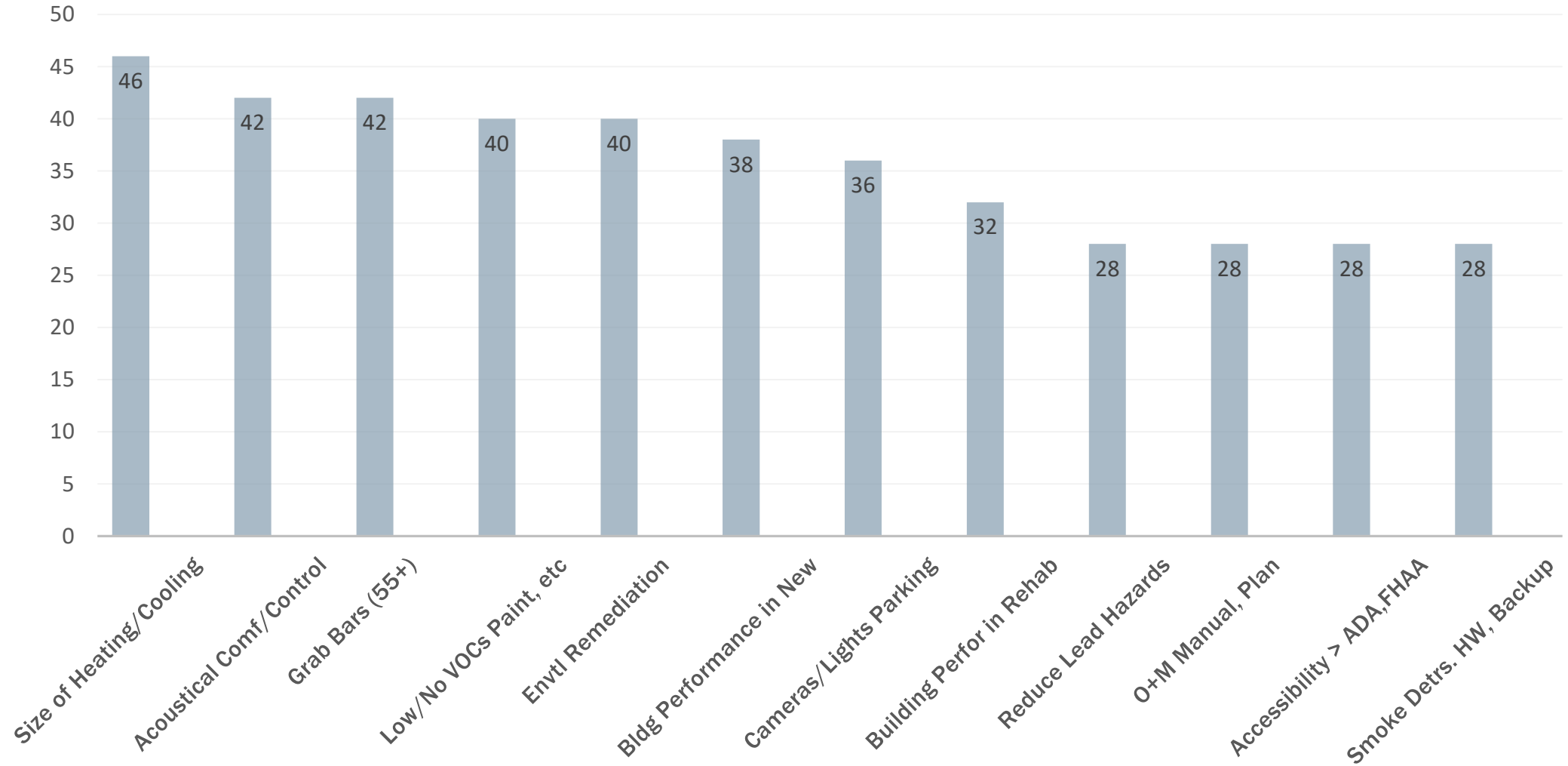


Tier 1
Tier 2

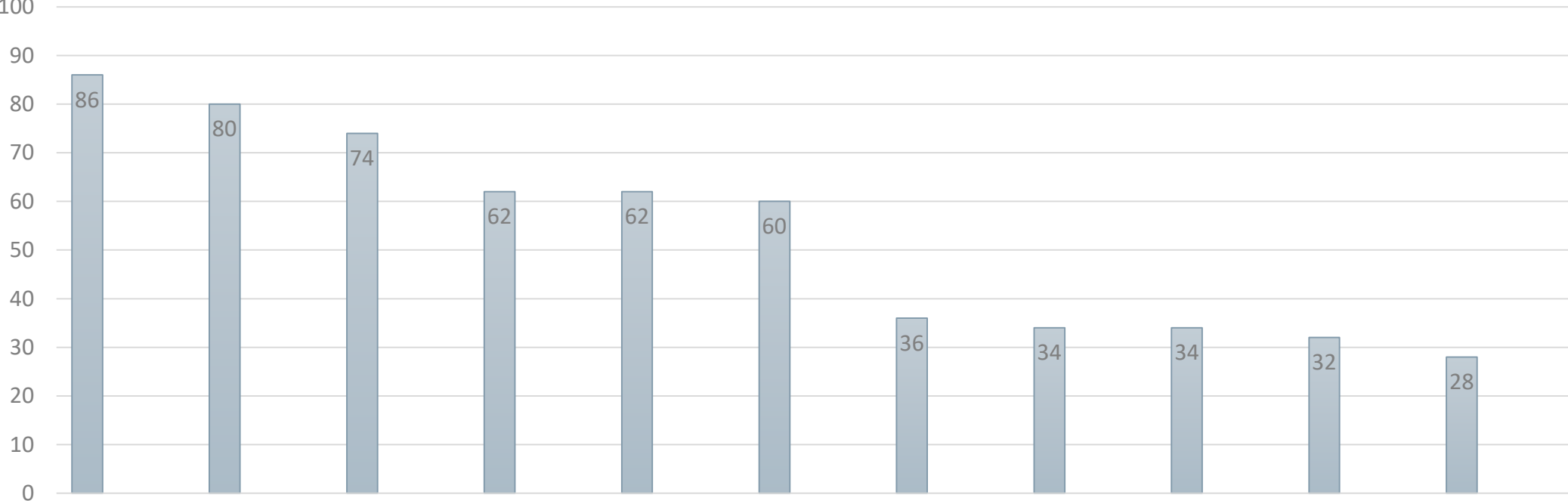


What **HH** provisions do states
mandate/incentivize in QAPs
(including ADs)?

Most Frequently Required in QAP+



Most Frequently Incentivized in QAP+



Proximity to Services
Access Public Transit
Supportive Housing
Access Open Space
Brownfield/Adaptive Reuse
Activity Spaces Kids, Adults
Building Perf. in Rehab
Accessibility > ADA, FHAA New
Accessibility > ADA, FHAA Rehab
Building Perf. in New
Connectivity to Community

Conclude....

- Those HH provisions associated with **mechanical systems** and **energy efficiency** are more likely to be required; and often incentivized
- Those HH provisions associated with **on-site spaces for health/wellness** programming and with **neighborhood location factors** are rarely required but often incentivized
- **Accessibility (Universal Design) features** that go beyond federal legislation (ADA, FHAA) are often mandated and incentivized

Do states include
high-priority HH provisions
In the QAP+?



Key for Kids (10)

- Asthma + Respiratory Health
- Health Outcomes from Toxic Exposure




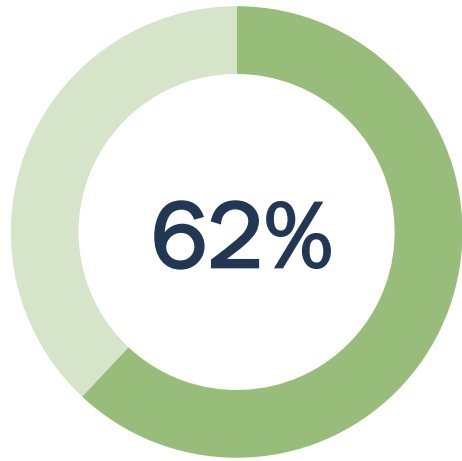
Key for Vulnerable Adults (19)

- Asthma + Respiratory Health
- Injury, Accessibility, Safety
- Cardiovascular, Diabetes, Obesity
- Mental Health
- Thermal Comfort

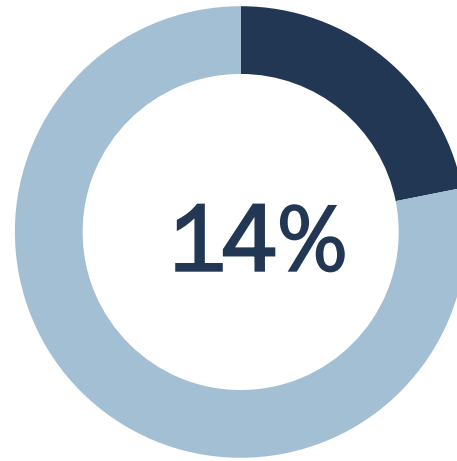
Frequency States Mandating or Incentivizing in QAP+

Both Key4Kids + Key4VA		Only Key4VA	
Vent. ASHRAE 62.2, esp. exhausts	22%	Install Grab Bars in 55+	42%
Mold Prevention: Surfaces	22%	Building Perf. New/Rehab	38%
Limited Use Carpet	20%	Cameras, Lights in Parking	36%
Bldg. Ext. Moisture Control	14%	Accessibility > ADA, FHAA	28%
Mechanical Systems for Mois. Ctrl.	6%	Supportive Housing	14%
Asthmagen-free Materials.	4%	Visual Acuity in Living Areas	8%
Mold Prevention: Shower, Tub	2%	Proximity to Services	6%
Integrated Pest Mgt.	2%	Impact Reducing Flooring	4%
		Access to Public Transit	0
Only Key4Kids: Lead Remediation	28%	Daylighting Fenestration	0

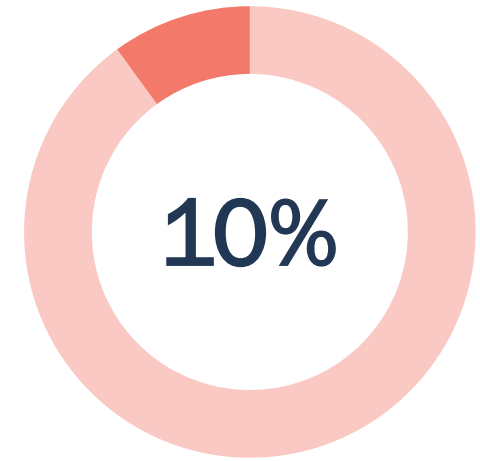
Key4Kids  : % of States with



**1 or More
Required**

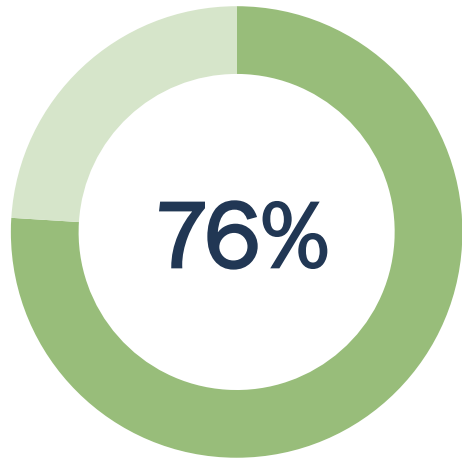


**At least 25% Provisions
Required**

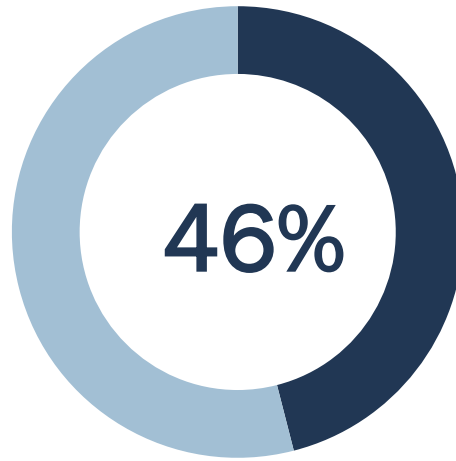


**None Required but
1+ Incentivized**

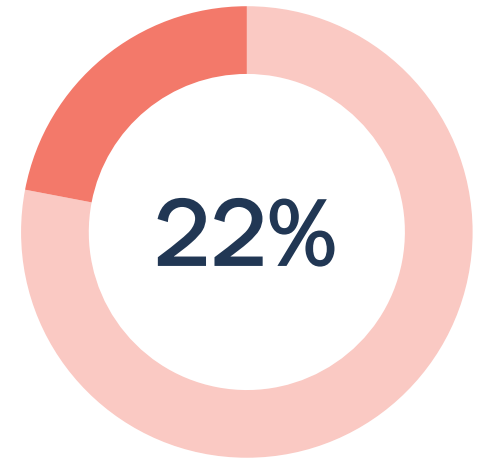
Key4VA  : % of States with



**1 or More
Required**



**At least 25% Provisions
Required**



**None Required but
1+ Incentivized**

Conclude....

- When states do address Key4VA and Key4Kids in the QAP+, they are **more likely to require** than simply incentivize these items
- Key HH provisions related to **asthma and respiratory health** are not substantially embedded in required or incentivized criteria
- That there are more Key4VA than Key4Kids provisions incorporated in QAPs, suggests that states are leaning more towards incentivizing/mandating **non-respiratory HH provisions** such as accessibility and safety

Do Green Building Certifications
(GBCs) compensate for minimal HH
provisions in QAPs?

National GBCs



- Energy Savings Plus Health
- Enterprise Green Communities
- Energy-Star
- LEED for Homes
- Living Building Challenge
- National Green Building Standard
- Passive House

State or Regional GBCs

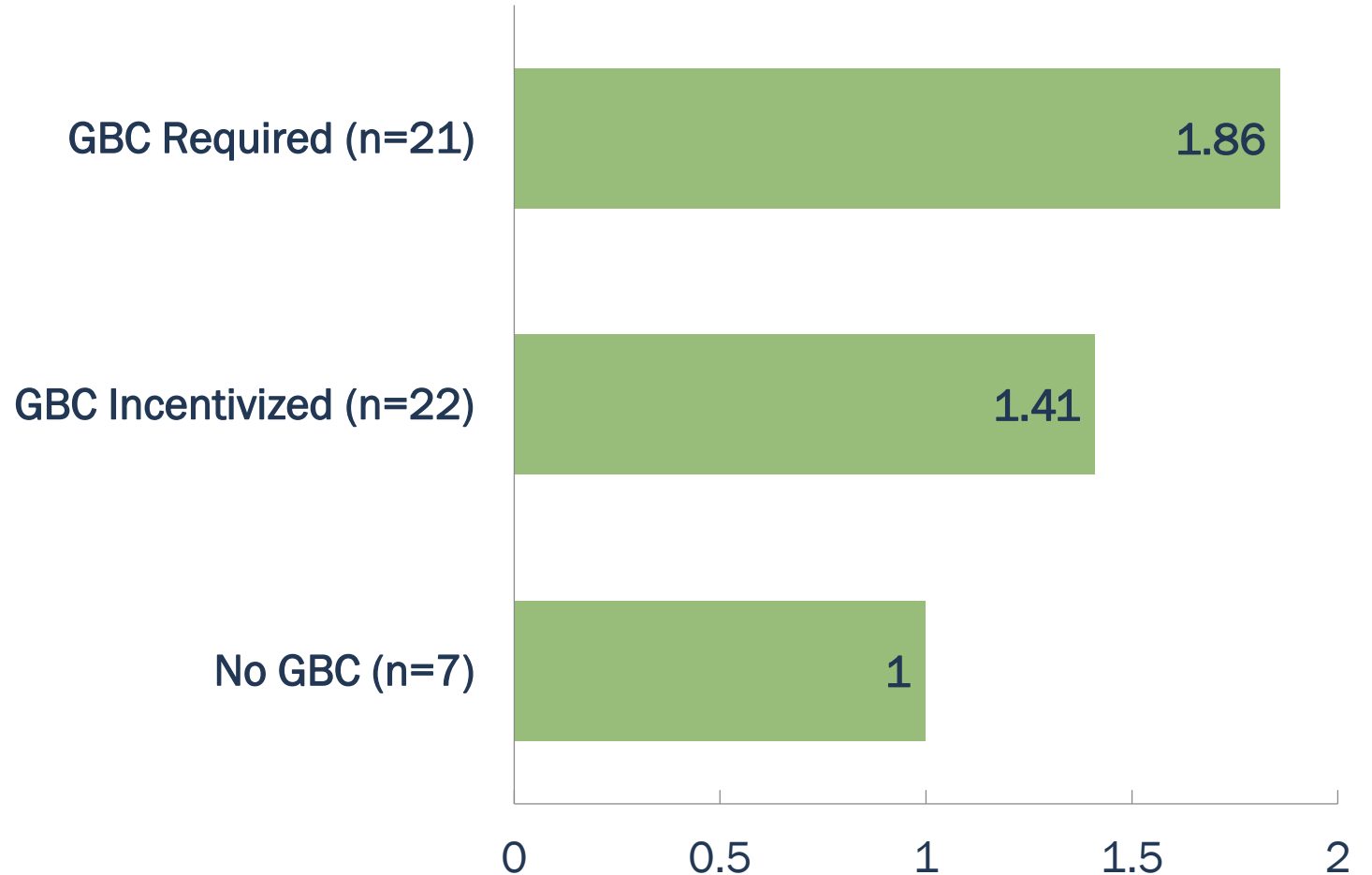


- Build Green New Mexico
- Earth Advantage
- Earthcraft
- Evergreen
- Florida Green
- Wisconsin Green Built Home
- and 6 others

Mean Number of Key4Kids Provisions* in QAP+ by State Requirement of a GBC



ANOVA $F = 1.184$ (n.s.)

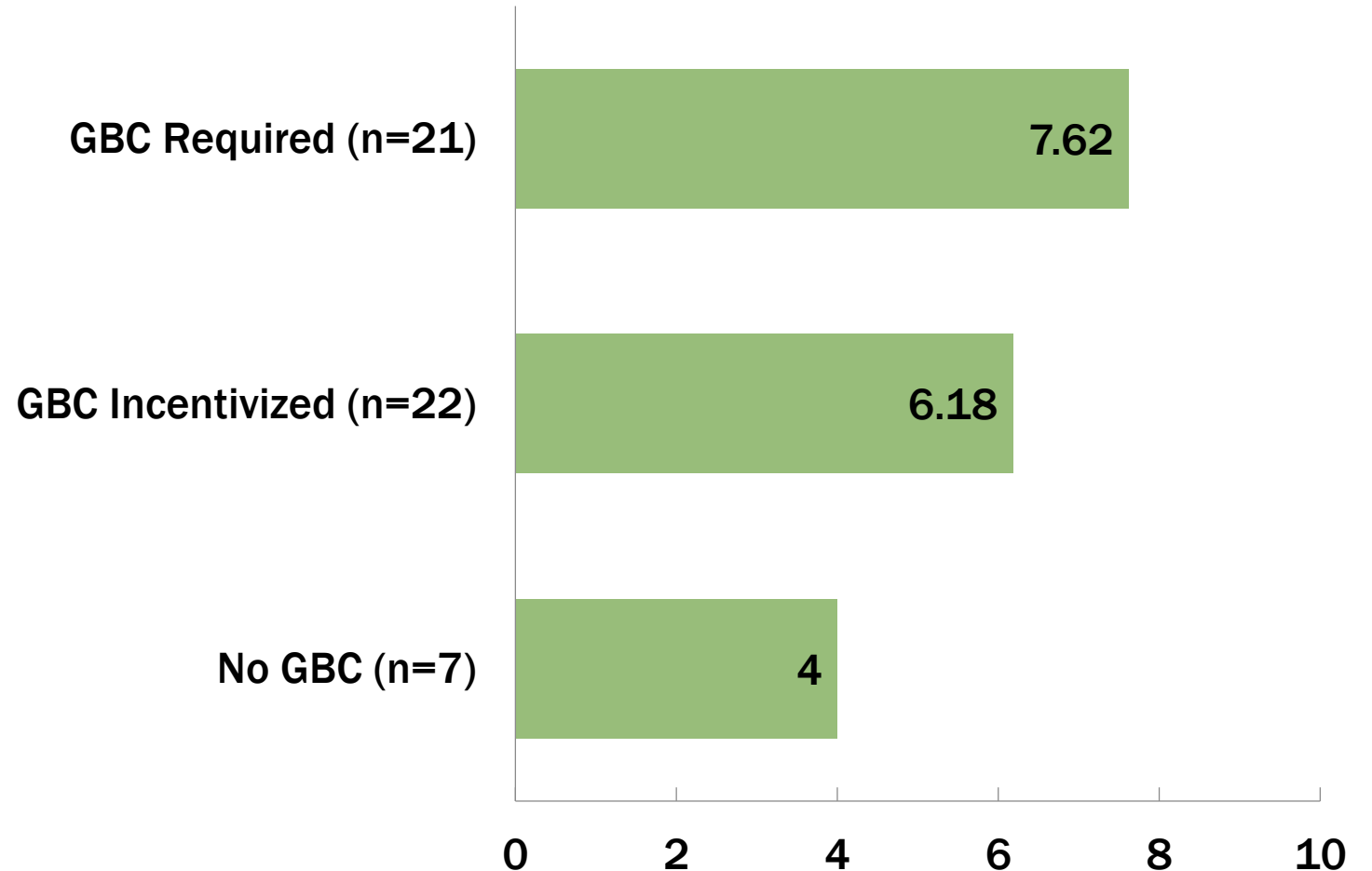


*Incentivized and Required

Mean Number of Key4VA Provisions* in QAP+ by State Requirement of a GBC



ANOVA $F = 4.06$ ($p < .05$)



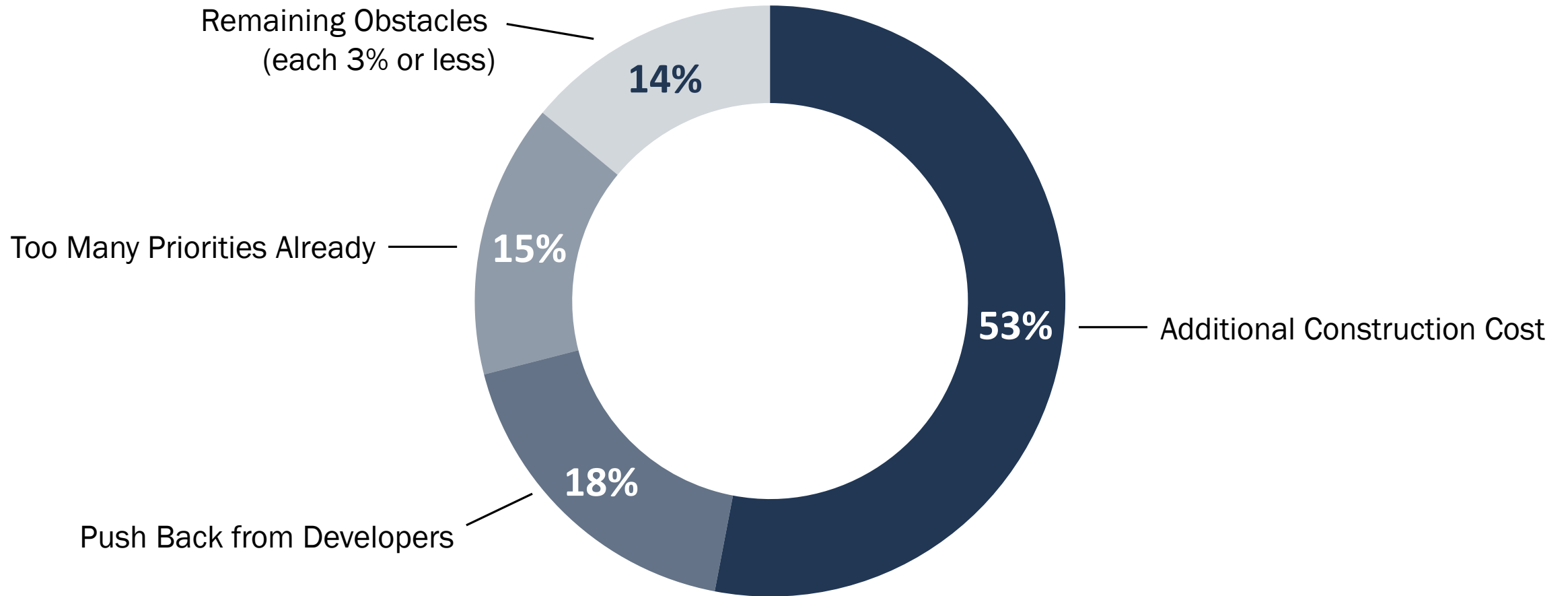
*Incentivized and Required

What approaches can HFAs pursue

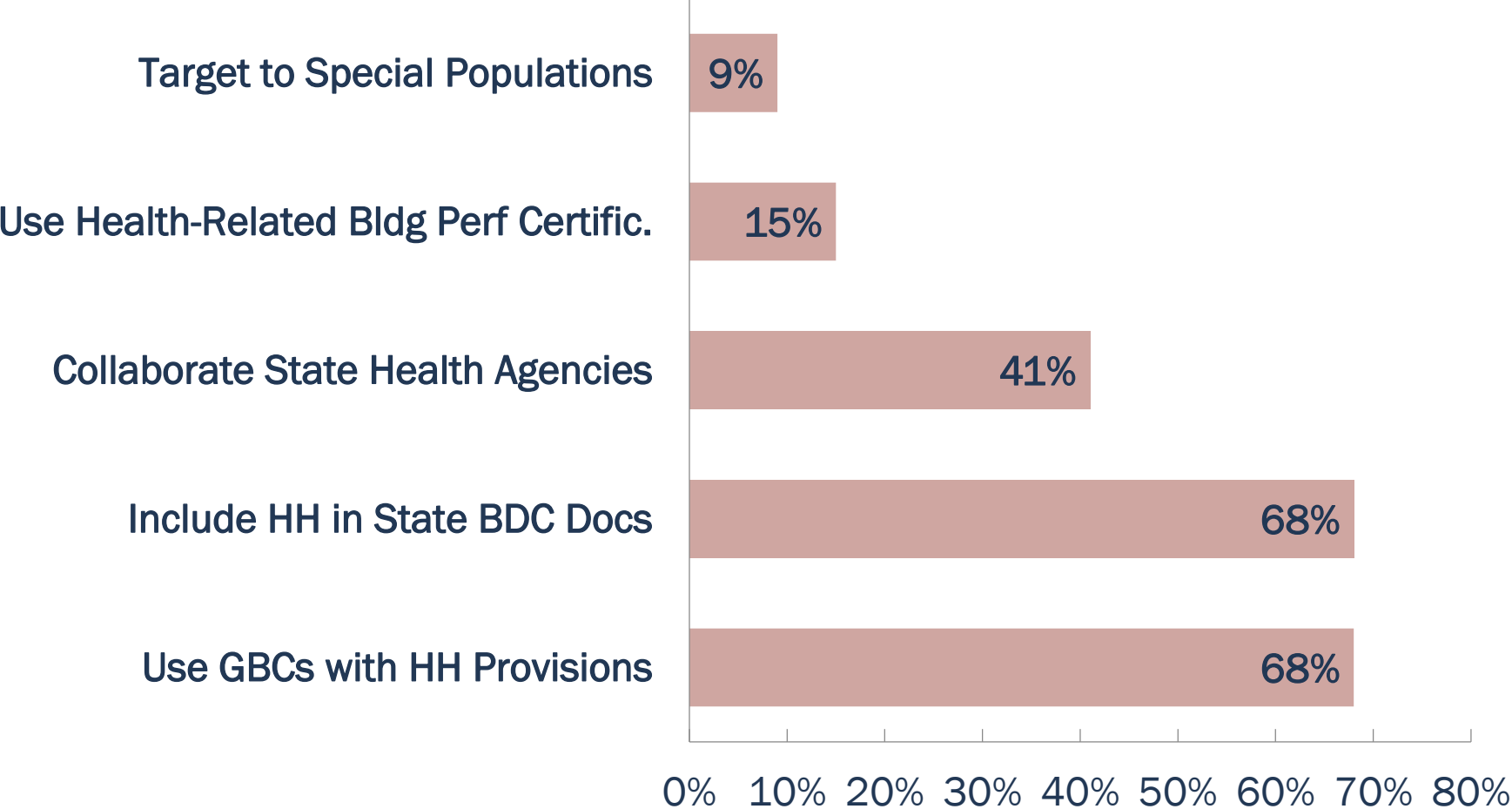
&

What can we learn from their
practices?

What HFAs consider as their #1 **Obstacle** to Including or Strengthening HH Provisions in LIHTC



Most Effective Means to **Add or Strengthen** HH Provisions in LIHTC Program



Forthcoming.....

- **Becoming sensitized** to incorporating BDC provisions for occupant health; what's the *tipping point*?
- What **resources** can be brought to the process to make incorporation of HH provisions viable?
- What **research** is needed (e.g. cost effectiveness), and on what HH issue?

FOR MORE INFORMATION.....



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