

# Clinical Diagnostic Program

## Contrived / Surrogate Sample Use Survey Results



ALIGN | ACHIEVE | ACCELERATE

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**April Veoukas, JD, Director Regulatory Affairs | Abbott  
MDIC Contrived / Surrogate Samples Work Group Chair**



# What is Regulatory Science?

The science of developing **new tools, standards, and approaches** to assess the safety, efficacy, quality, and performance of FDA-regulated products

- Benefits patients by speeding the rate of important technologies reaching market
- Reduces time and resources needed for device development, assessment, and review. For example:
  - Can lead to quicker, more efficient device approvals
  - Can decrease the size and duration of pre-market clinical trials

## Faster, Safer, More Cost-effective

FDA Strategic Plan, August 2011  
Advancing Regulatory Science at FDA



# FDA Leadership Commitment

**"Public-private partnerships have been highly successful in promoting multi-sector dialogue and developing a common view of key issues in medical product development, including the Medical Device Innovation Consortium"**

**FDA Commissioner  
Robert Califf, MD**

*RAPS Regulatory Focus, January 11, 2016*

**"What we've lacked is a structure like the Medical Device Innovation Consortium that allows for a larger number of parties to come together to develop these projects on an ongoing basis - a significantly more effective way to do research."**

**CDRH Center Director  
Jeffrey Shuren, MD, JD**

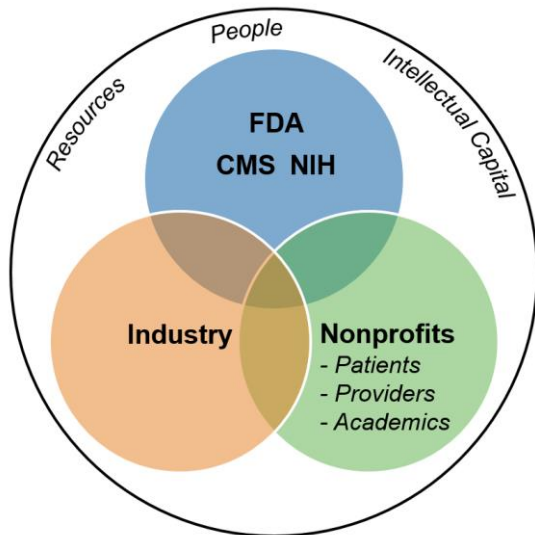
*MedPage Today, December 4, 2012*



# MDIC Highlights

- 57 Members
- 6 Projects
- Leading resource on issues important to the Medtech innovation ecosystem
- Congressional testimony on modernizing clinical trials
- \$500k funding from FDA for Patient-Centered Benefit Risk Implementation Framework- Project Completed
- \$643k funding from FDA for Quality Engagement Forum
- \$300k+ of industry funding in addition to member dues

*A 501(c)3 - Public-Private Partnership collaborating on Regulatory Science to make patient access to new medical device technologies faster, safer, and more cost-effective*



**Align Resources**

**Accelerate Progress**

**Achieve Results**

**WORKING COOPERATIVELY**  
to re-engineer pre-competitive  
technology innovation

**REDUCING TIME**  
and resources needed for new  
technology development,  
assessment, and review

**HELPING PATIENTS**  
gain access to new medical  
technologies sooner

ALIGN | ACHIEVE | ACCELERATE



# Why this initiative?

- ***Issue:***

The speed at which innovation and improved diagnostics are developed can be hampered by the difficulty in obtaining or retaining clinical specimens.

- ***Goal:***

Establish a foundation for the use of surrogate samples to support IVD product development and the regulatory process.



## What is a contrived / surrogate sample?

A contrived or surrogate sample (CSS) means material used as a substitute for body fluid or tissue taken for examination from a patient.

Examples include, but are not limited to:

- Materials supplemented (spiked) with a measurand of interest
- Pooled specimens of biological origin
- Material created to have functional characteristics of body fluid or tissue taken from a patient



# Survey Distribution Channels

- MDIC Website
- MDIC e-blast communications

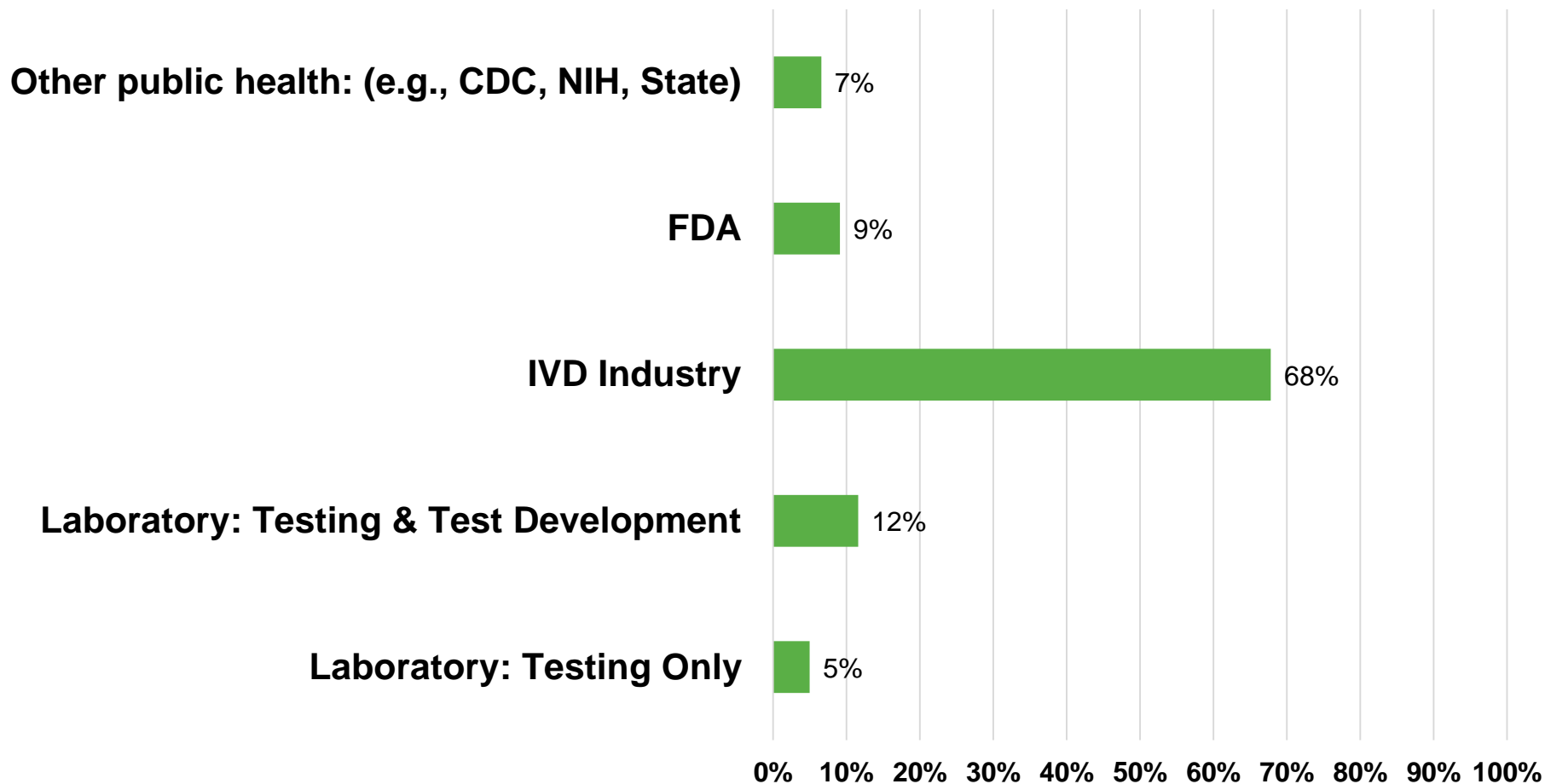
## Survey distribution assistance by:

- AdvaMed Dx
- Association of Medical Diagnostics Manufacturers
- Clinical Laboratory Standards Institute
- FDA
- Medical Device Manufacturers Association



# Who took our survey?

121 Survey Responses

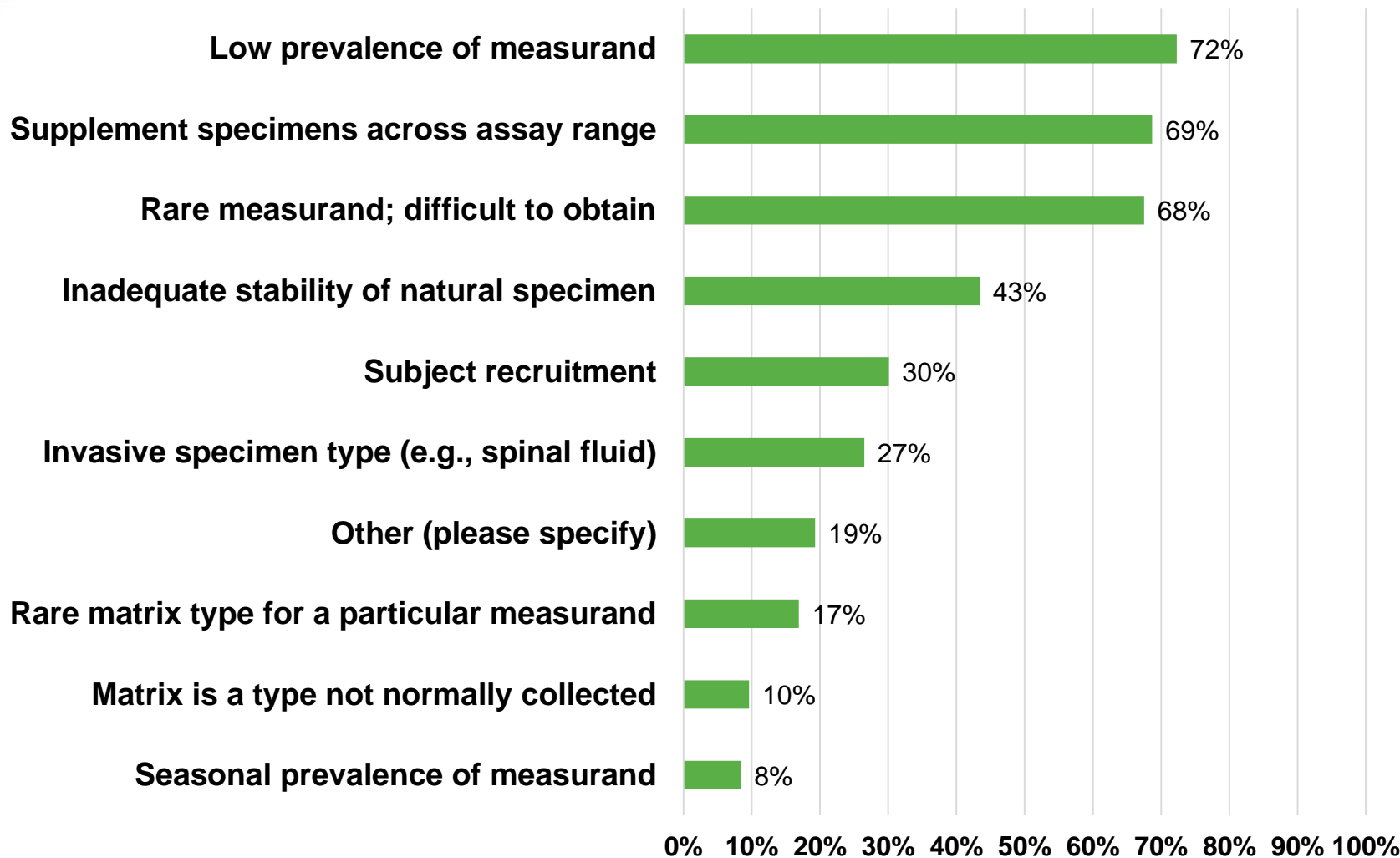






# Reasons for using CSS?

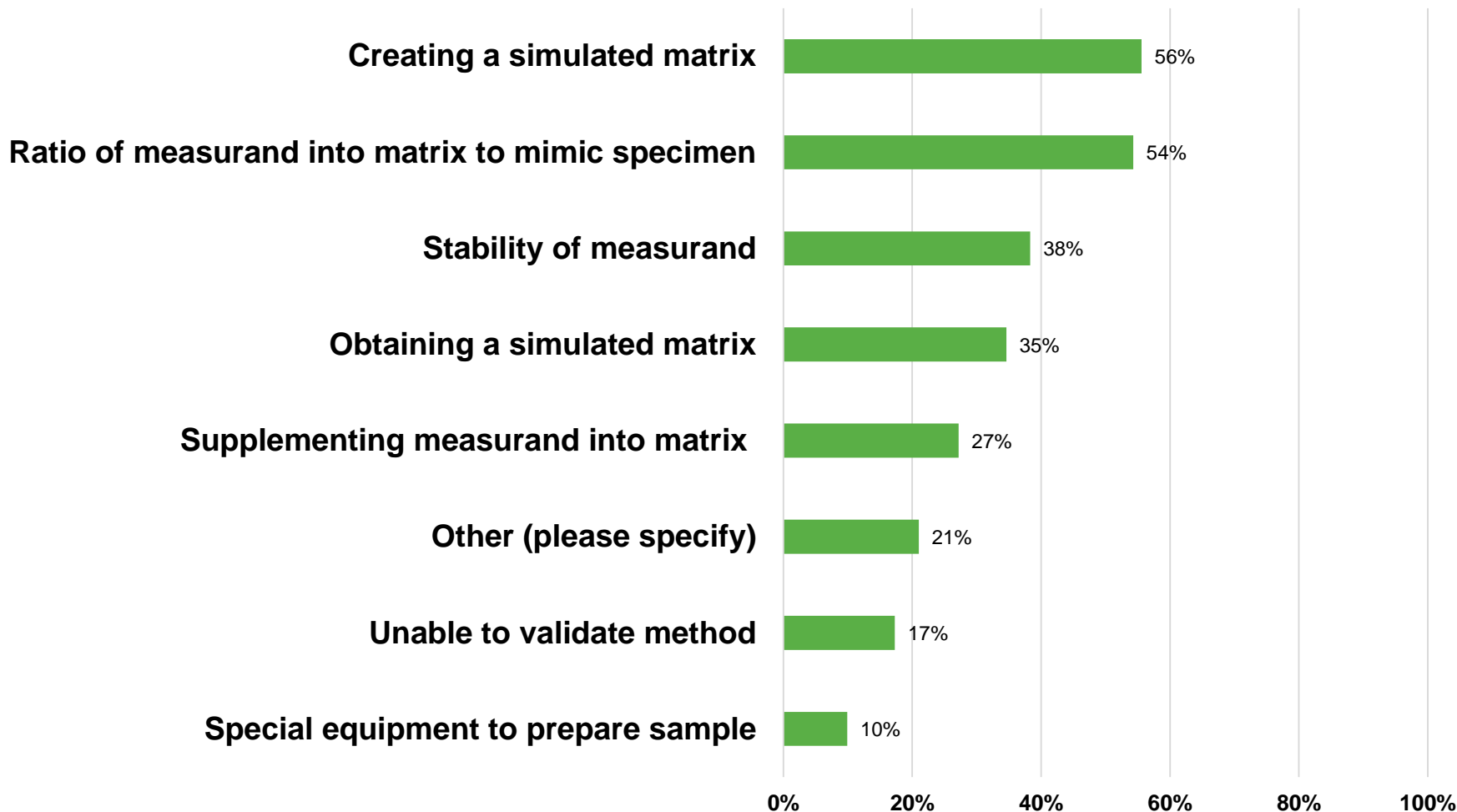
*(could select more than one answer)*





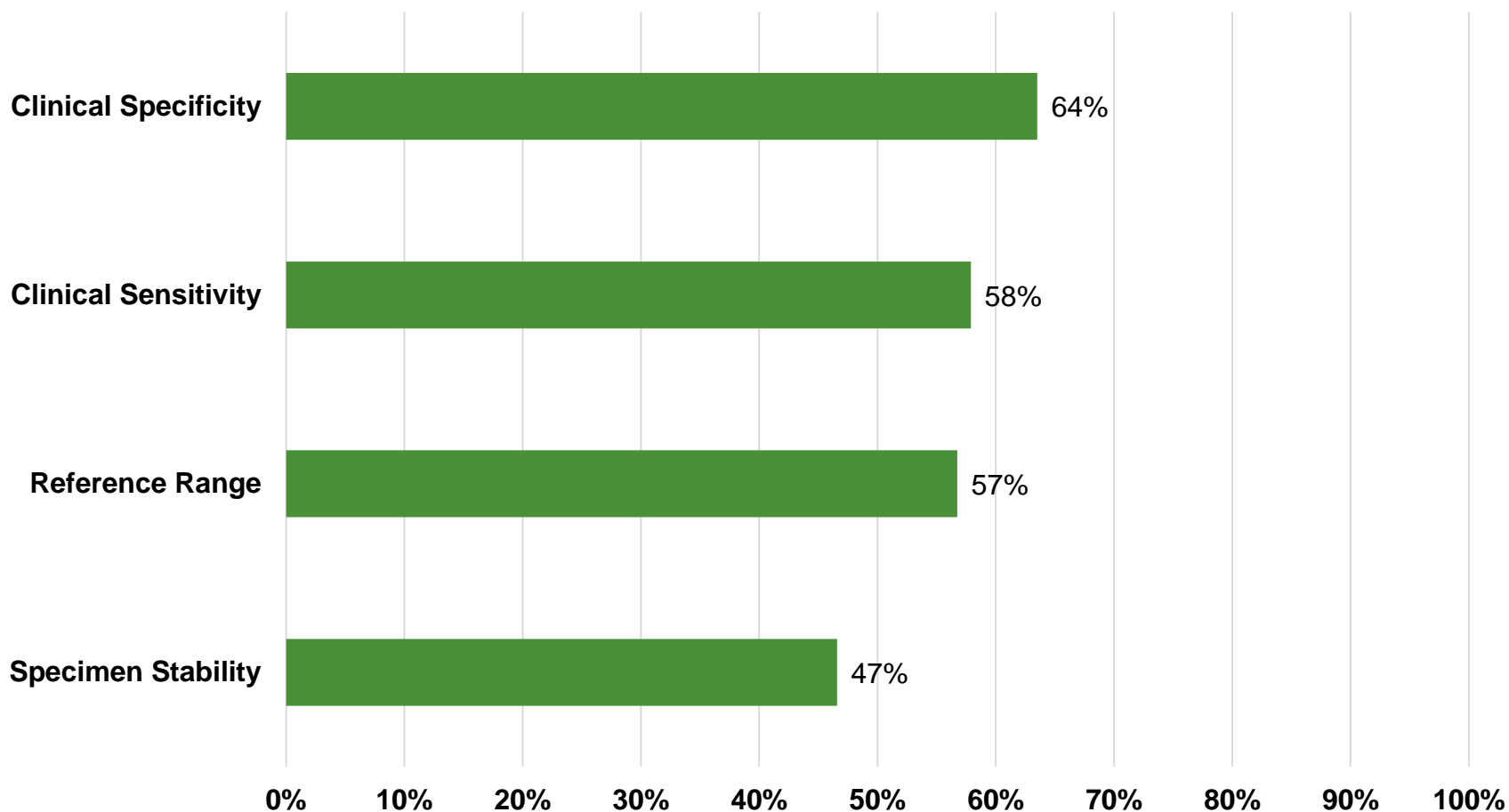
# What technical challenges have they encountered when using CSS?

*(could select more than one answer)*



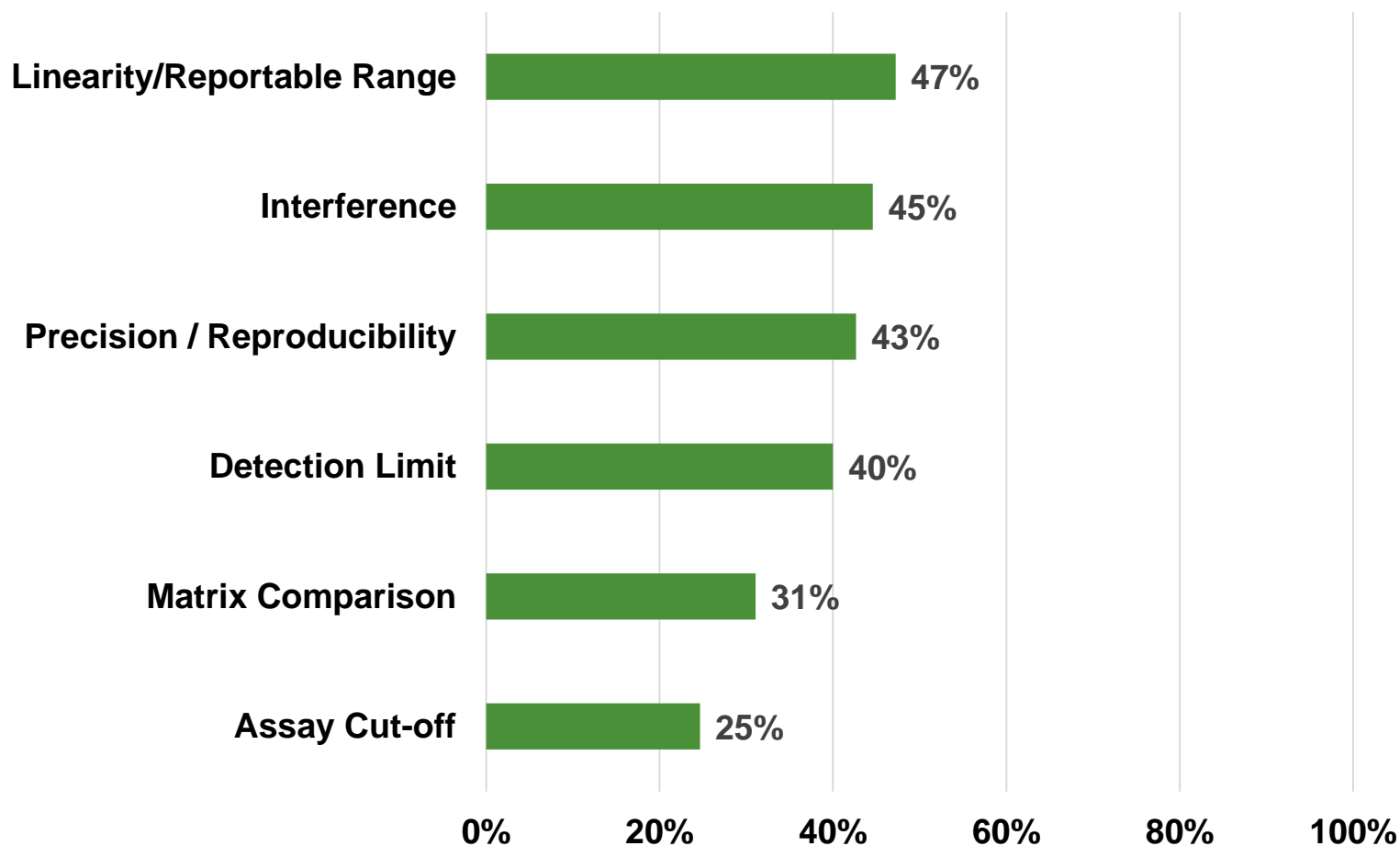


## When has it been *not* routinely acceptable to use CSS when working with a regulatory body (or as a regulatory body)?



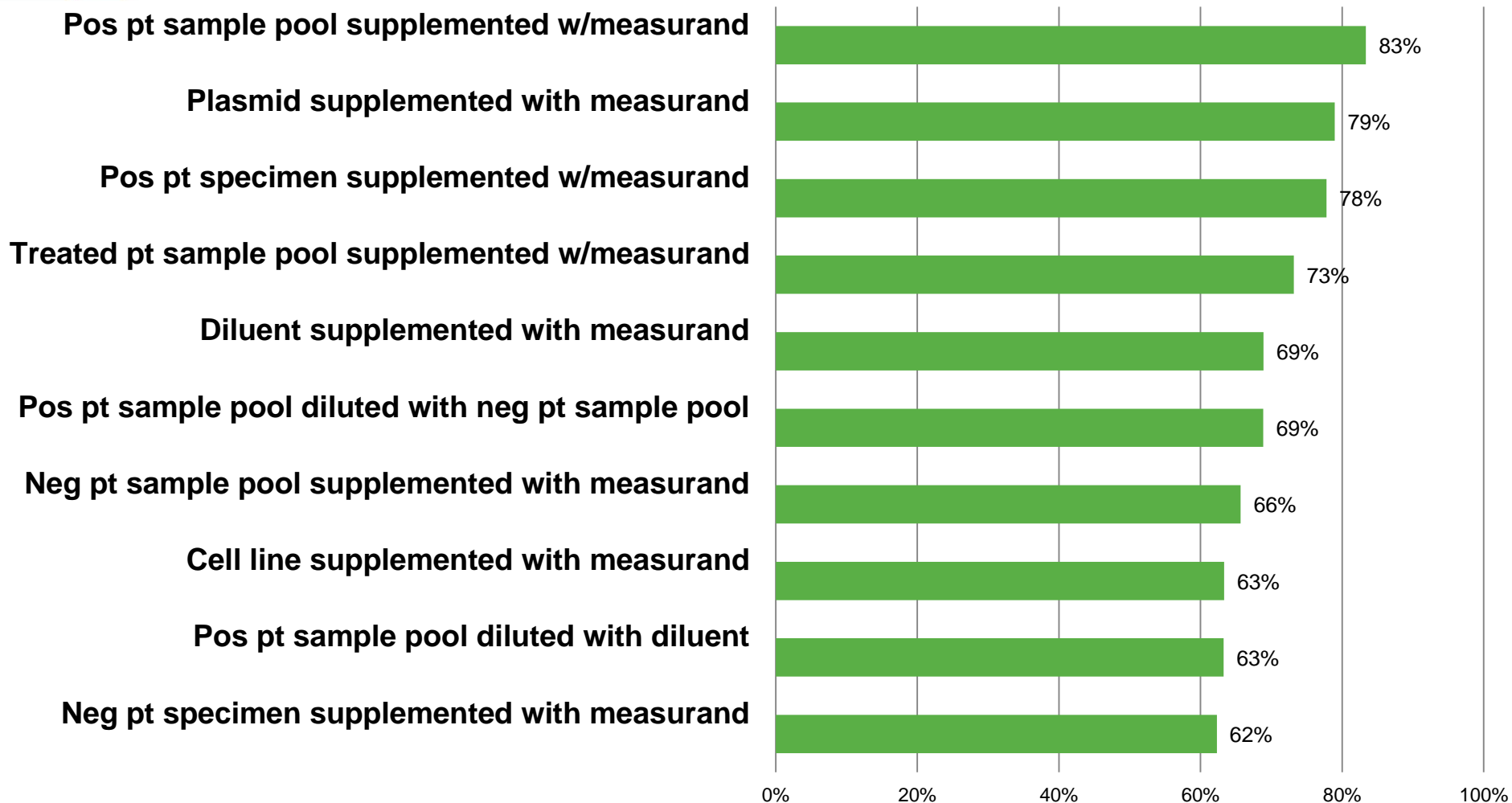


## When has it been routinely acceptable to use CSS when working with a regulatory body (or as a regulatory body)?



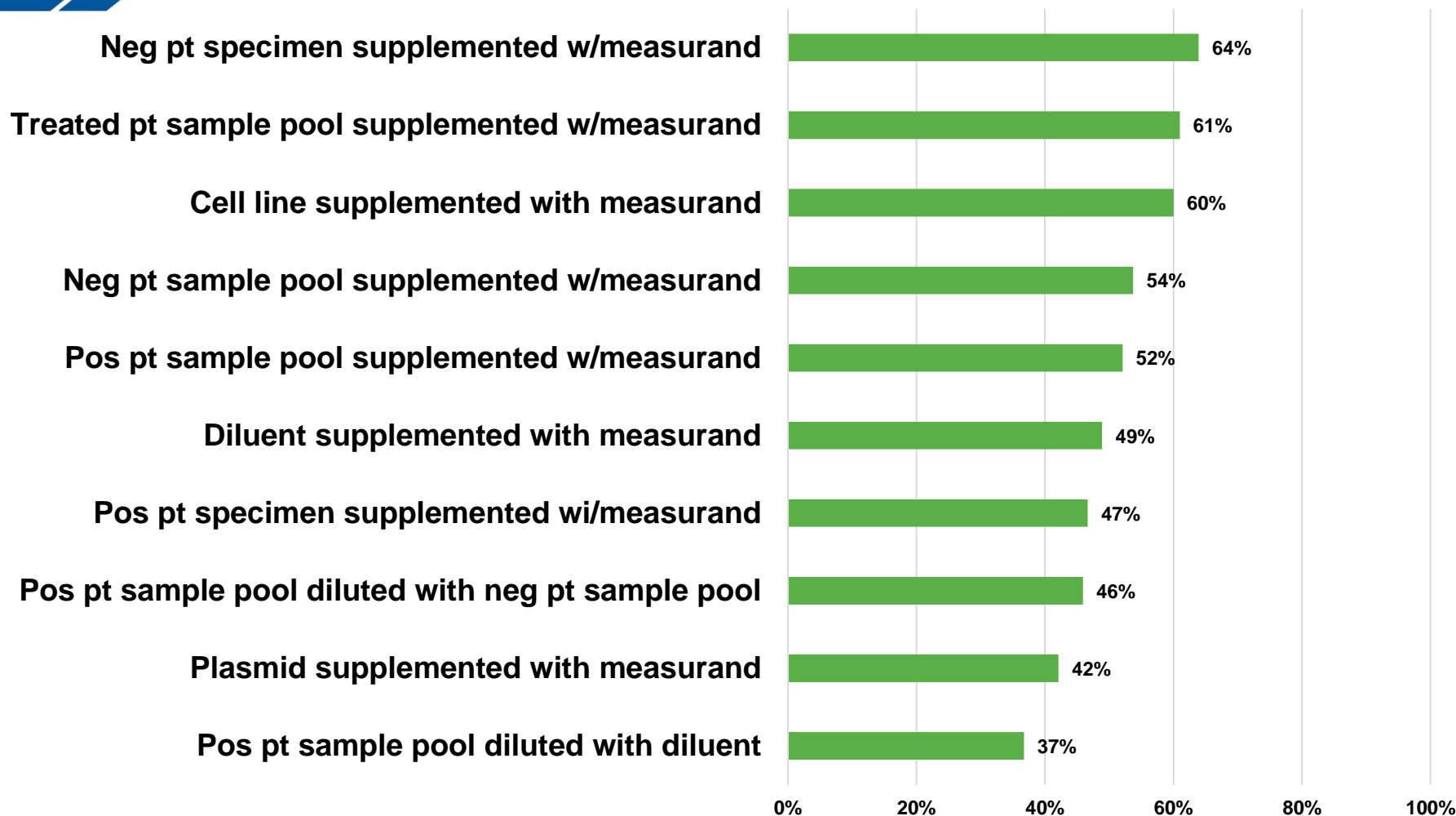


# When would you most frequently use the specified CSS to complete Linearity / Reportable Range?



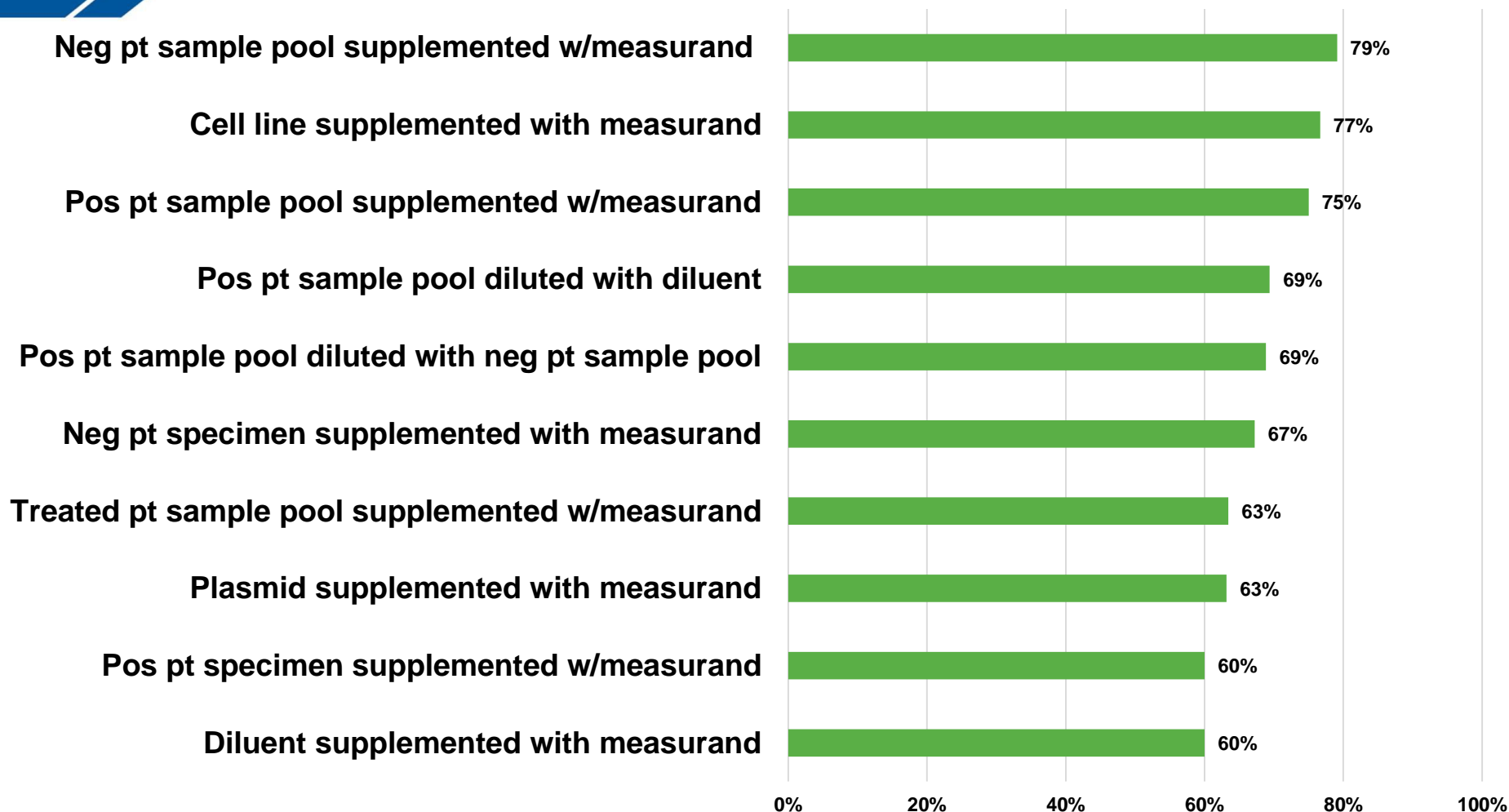


# When would you most frequently use the specified CSS to complete Interference?



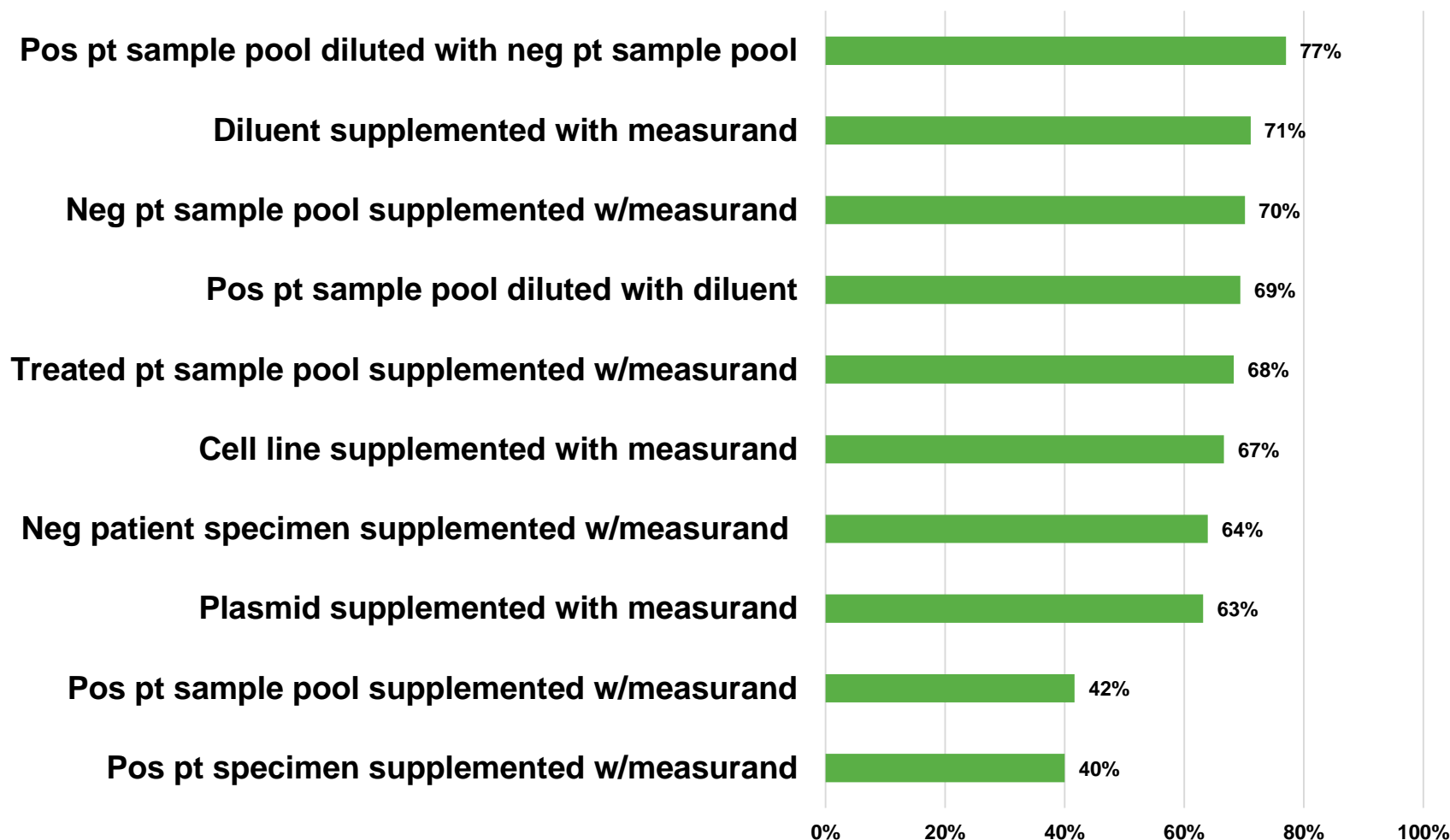


# When would you most frequently use the specified CSS to complete Precision / Reproducibility?





# When would you most frequently use the specified CSS to complete Detection Limit?







# Next Steps

- Summarize survey results
- Summarize analysis collected from 510(k) and PMA summaries and literature
- Outline framework
- Public comment on framework
- Deliver white paper

# Who is working on this project?

MDIC has assembled a work group comprised of member organizations and other subject matter experts to guide work on this project.

## Industry:

Khatereh Calleja, JD, AdvaMed  
Ronald Freeze, PhD, Abbott  
Patrick O'Donnell, Roche

Pamela Frank, Abbott  
Ian Giles, MD, Sysmex  
Brad Spring, BD

## Program Manager:

Carolyn Hiller, MDIC

April Veoukas, JD, Abbott (Working Group Chair)

## FDA:

Marina Kondratovich, PhD, CDRH | OIR  
Zivana Tezak, PhD, CDRH | OIR  
Yun-Fu Hu, PhD, CDRH | OIR

## Expert Advisors:

Susan Alpert, MD, PhD

Constantine Gatsonis, PhD

Fred Lasky, PhD



**For Additional Information  
Visit the Clinical Diagnostic Program Website:**

**<http://mdic.org/ClinicalDx/>**

**Or contact:**

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