

# Optimizing Real-World Benefit and Risk of New Psychedelic Medications: The Need for Innovative Postmarket Surveillance

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# What is Postmarket Surveillance?

- **Postmarket surveillance:** practice of studying the safety of medicines after they have been released to the market



**Clinical Trials**

**Postmarket Surveillance**

## **Controlled Settings**

- Small studies
- Limited populations
- Focused safety & efficacy goals
- No long-term effectiveness

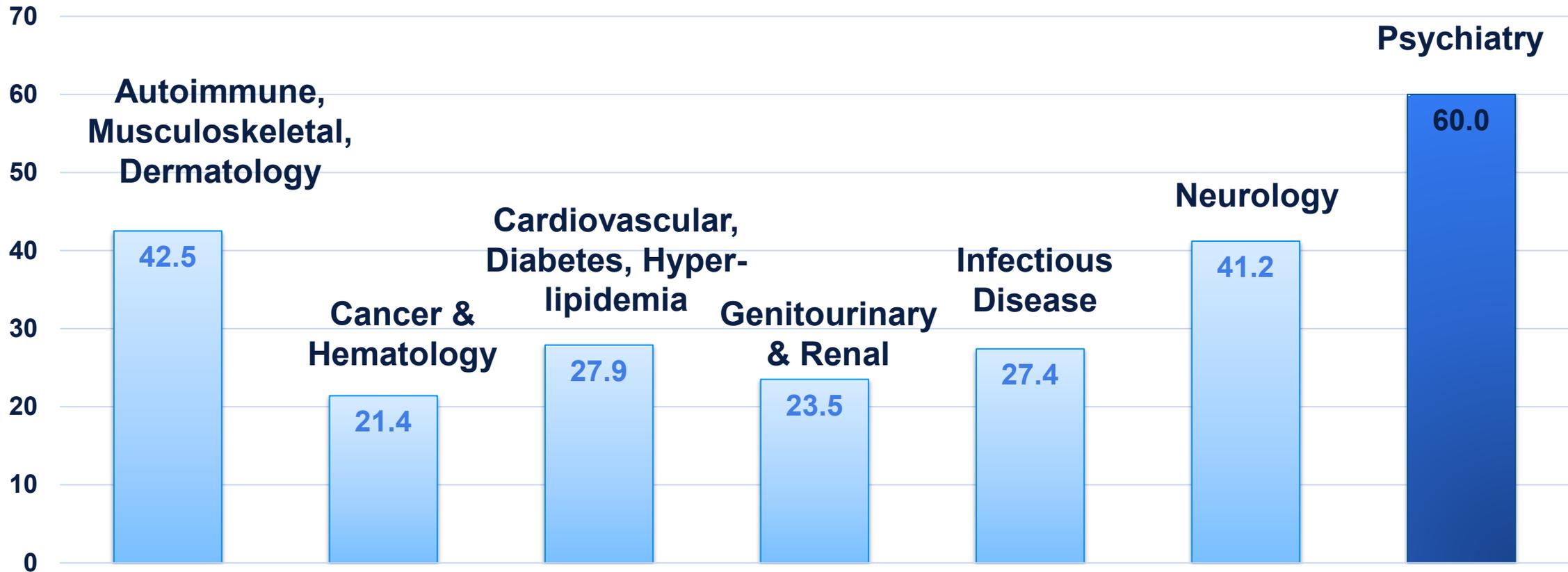
## **Real World Conditions**

- Large populations
- Heterogeneous groups
- Rare safety outcomes
- Long-term effectiveness

# A Postmarket Safety Related Regulatory Action is Likely for Psychedelic Drugs



## Proportion of Drug Classes with a Postmarket Safety Related Regulatory Action within 10 Years of Approval



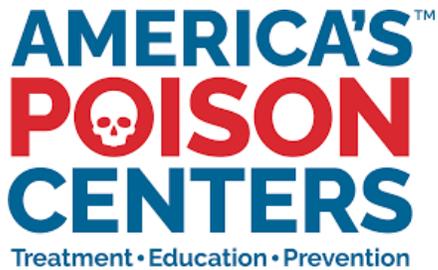
# Importance of a Fit-for-Purpose Psychedelic Postmarket Surveillance Program

- Psychedelic medications are not administered like traditional medicines
- Inability to differentiate between approved and illicit forms
- Uniformed narrative perpetuates stigma
- Treatment effects mistaken for adverse events



**Culminates in risk to  
therapeutic potential  
of psychedelics**

# Limitations of the Current Surveillance Systems

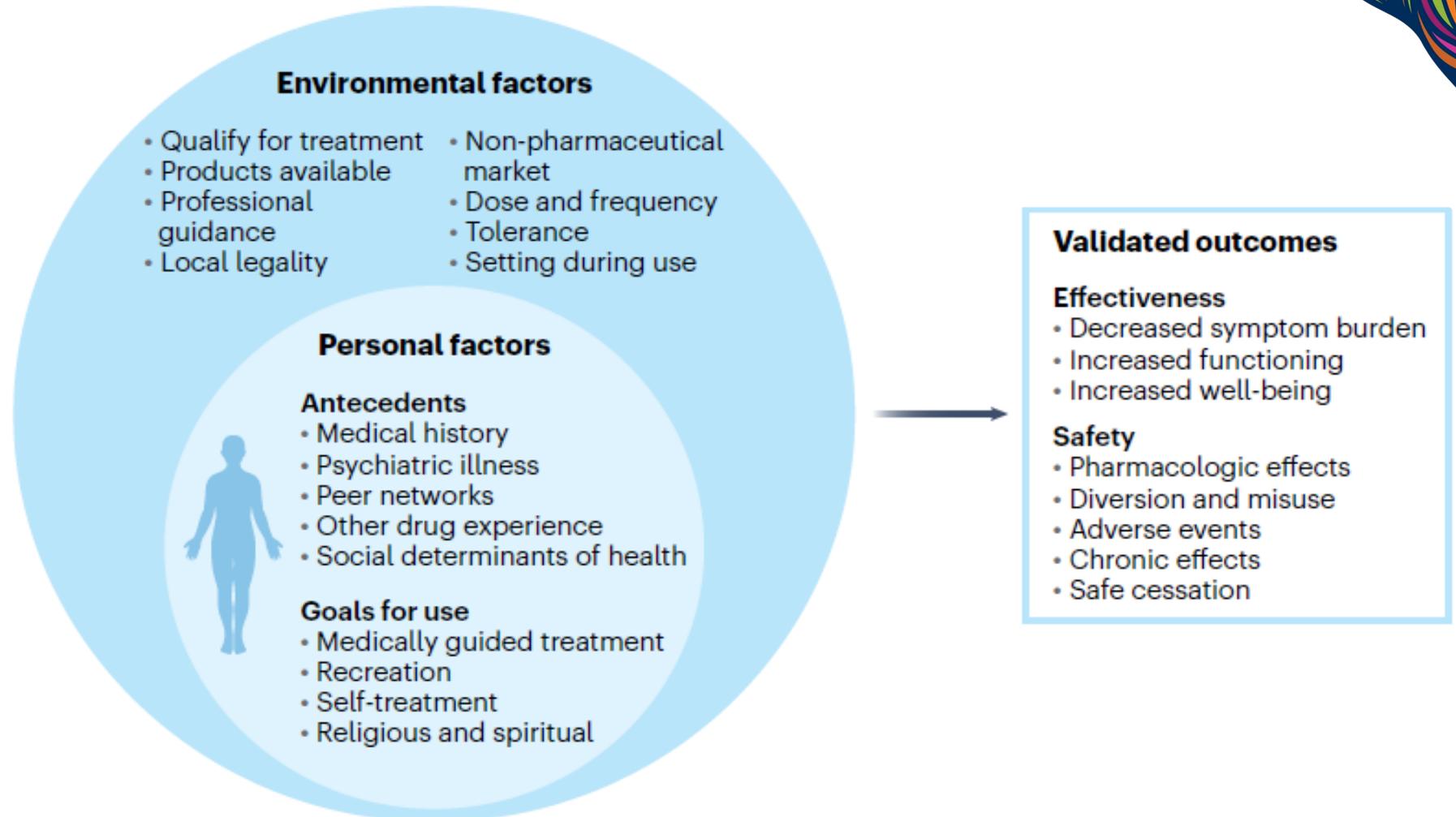


## Limitations

- Not well designed for psychiatric adverse events
- Little if any data on mental health outcomes
- Lack of care system measurement

# Monitoring the Continuum of Use and Misuse

Surveillance must cover multiple domains, from environmental factors and personal factors to relevant validated outcomes



# Unique perspectives in psychedelic data collection



## Adverse Event Definition

- Need to differentiate intended from unintended effects:
  - Acute intended effects vs. unwanted problematic symptoms vs. recurrent unwanted hallucinations
- Longitudinal measurement to understand effect of adverse event
- Emergent suicidality
- Non-psychoactive negative effects (e.g., nausea, vomiting)
- Novel harms – therapist or patient abuse

## Comorbidity & Concomitants

- High likelihood of:
  - Complex medical conditions and comorbidities
  - Concomitant use of other medications and illicit drugs (including psychedelics)
- Importance of washout periods

# Unique perspectives in psychedelic data collection



## Set & Reason for Use

- Likely to be very heterogeneous and nuanced
- Uncertain impact of mindset – important to capture now to predict outcomes
- Data stratification by reasons for use is vital as it predicts behaviors around use
- Spiritual and religious reasons should not be conflated as misuse

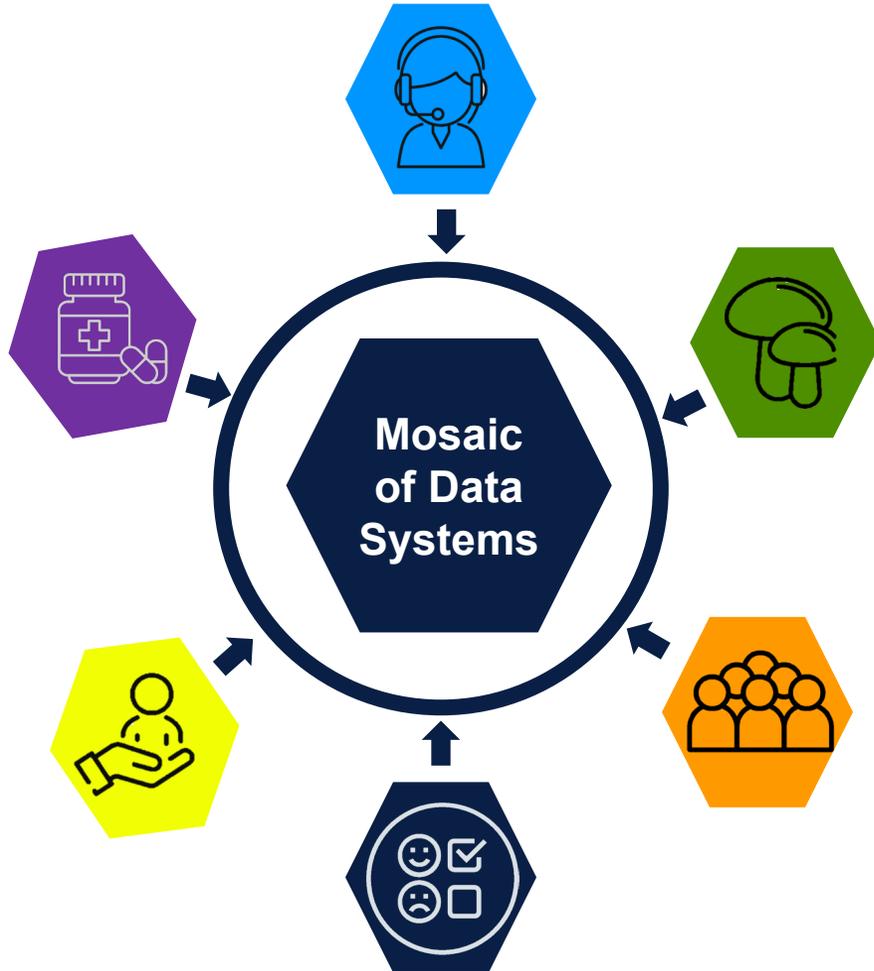
## Role of Facilitator

- The role of therapy complicates the measurement of effectiveness and safety
- Administration sessions vary widely
- Data systems must assess the level of supervision and counseling approach as effect modifiers



# **Building a Real-World Surveillance System for Psychedelic Medications**

# Data system needs



- A mosaic of data systems
  - Data within point-of-care settings
  - Data at the population level
- Data collection should account for misclassification

# Real-World Surveillance of Psychedelic Medications



Types of psychedelic data collection:  
Point-of-care data collection – longitudinal survey



# Longitudinal Survey

Monitoring of effectiveness

Tracking unforeseen negative outcomes

Utilizing data from providers and patients to triangulate outcomes

Types of psychedelic data collection:  
Point-of-care data collection - qualitative data



# Qualitative Data

Understand the importance of the hallucinogenic experience

Patient perspectives of AEs

Evaluate stigma and barriers to treatment

# Types of psychedelic data collection: Population level - national survey



## National Survey

Need for psychedelic-specific drug use survey

Rare medical outcomes not reported to medical facilities

Advanced statistical techniques for small geography estimates

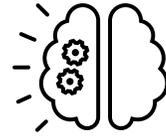
# Evolving – Flexible – Collaborative



Extensive Collaboration



Iterative Validation



Freedom of Thought



Study Teams



Regulators

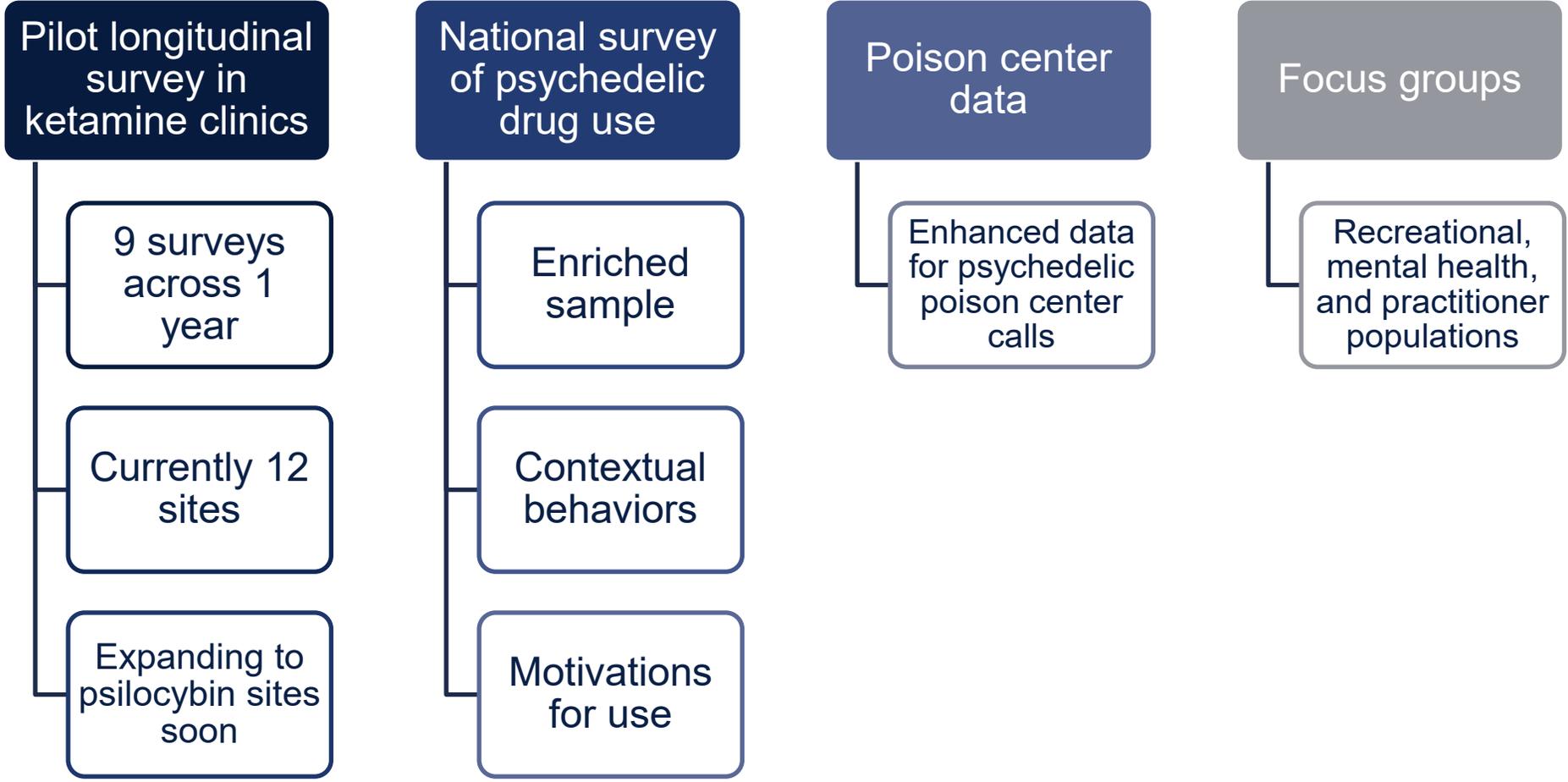


Providers



Patients

# What we've built so far....



# Longitudinal Survey Preliminary Data

- 6 participants
- 100% retention
- Longest participant has completed the 28-day follow-up
- Primary diagnoses include: Depression & PTSD
- Participants may be taking ketamine or esketamine



# National Survey Preliminary Data

- Survey launch in progress now
- 80 completed surveys in 2 days
- Goal of 2,000
- Mean number of psychedelics used in the past year: 3
- Average lifetime number of psychedelics used: 5.5

**Drugs included in survey  
(highlighted ones currently have no national surveillance on use prevalence:**

**Ayahuasca**

DMT

Esketamine (SPRAVATO®)

**Ibogaine**

Ketamine -> we distinguish between prescription ketamine and **illicit ketamine**

LSD

MDMA

**Peyote**

**San Pedro**

**Synthetic Mescaline**

Psilocybin or Psilocin

Salvia Divinorum

**2C-B**

**5-MeO-DMT**

# Poison Center Preliminary Data

- 21 psychedelic cases since March 22, 2024
- Primary physical symptom was neurological
- Primary drug endorsed was psilocybin
- Reason for use has been difficult to capture
  - Working to improve those data points



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# Thank You!



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# Questions?

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