

Facilitating Infant Language Intervention Through Quality Improvement



EHDI Annual Conference
March 2021

Ursula M. Findlen, PhD, Gina M. Hounam, PhD, Lindsey Pauline,
MA, CCC-SLP, Kris Jatana, MD, Prashant S. Malhotra, MD



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Disclosures



Ursula M. Findlen, PhD

Director of Audiology Research
Nationwide Children's Hospital

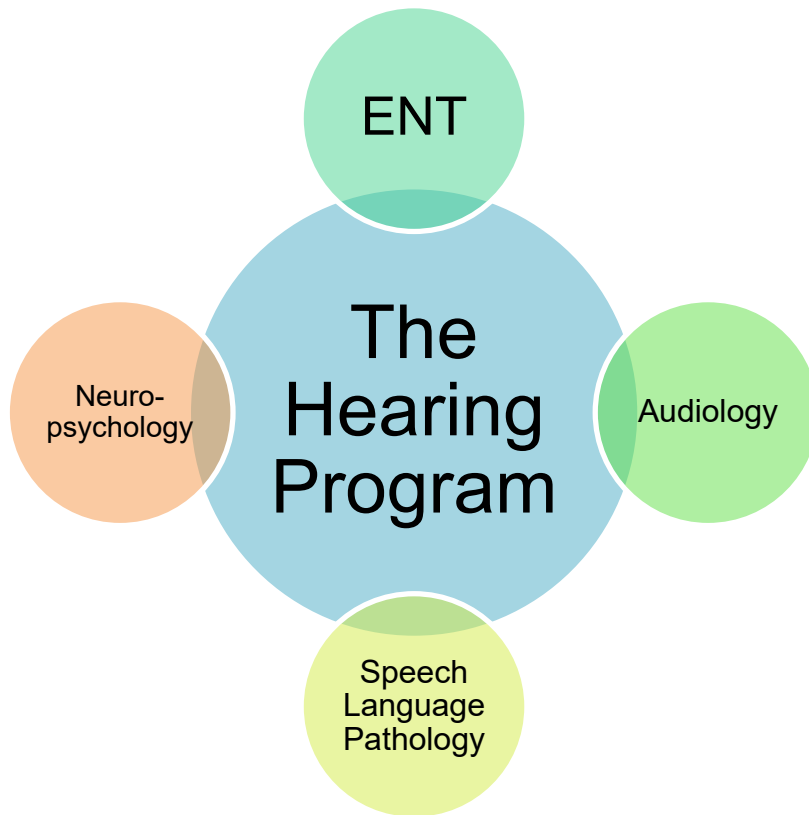
Assistant Professor- Clinical
The Ohio State University Wexner Medical Center
Department of Otolaryngology Head & Neck Surgery

Learning Objectives

1. Describe evidence-based practice speech & language intervention guidelines for children with hearing loss.
2. Identify strategies to facilitate successful speech & language intervention and monitoring.
3. Identify modern quality improvement methods for facilitating evidence-based practice and measuring improvement in patient care.



NCH Multidisciplinary Care Team



The Hearing Program

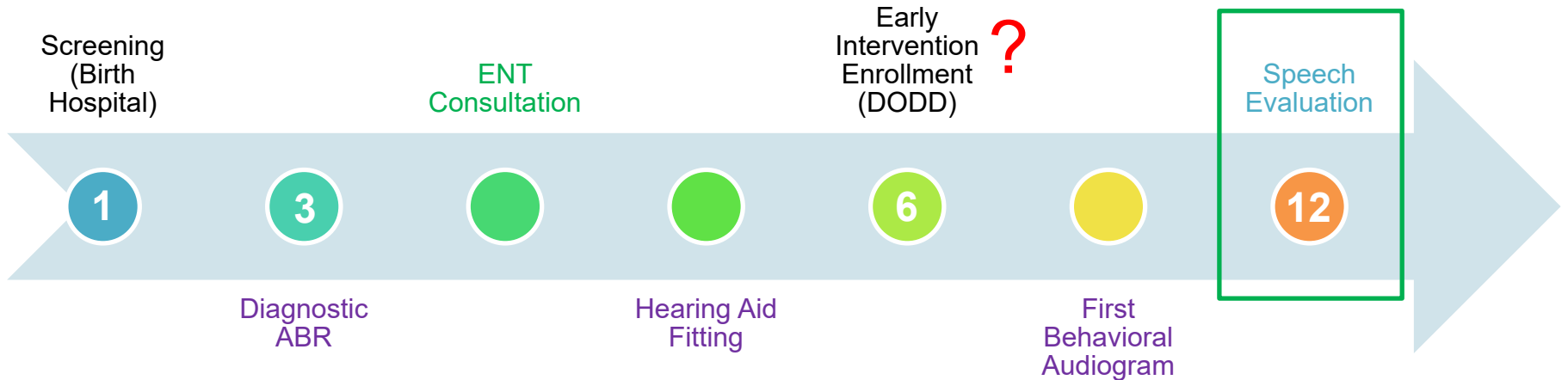
- Multidisciplinary program serving children with permanent hearing loss
- ENT- Oliver Adunka, MD (Medical Director), Prashant S. Malhotra, MD, and Ed Dodson, MD
- Audiology- all staff (17 audiologists)
- Speech/Language Pathology – 6 SLPs specializing in care for children with hearing loss across the communication continuum
- Neuropsychology on consultative basis



Hearing Program Care Timeline

1-3-6 Care Time Points (JCIH, 2019)

Findlen et al. (2019) EHDI



✓ mean = 6 weeks old

✓ mean = 3.1 mos old

Findlen et al. (2019) E&H

Key:

ENT

Audiology

Speech-Language Pathology



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The Quality Improvement Team

- Project Support



Valerie Ruddock
Executive Coach



Kelly Kersey
QI Coach

- Hearing Program QI Team



Prashant Malhotra, MD
Pediatric Otolaryngology



Kris Jatana, MD
Pediatric Otolaryngology



Lindsey Pauline, MA, CCC-SLP
Speech Language Pathology



Gina Hounam, PhD
Audiology



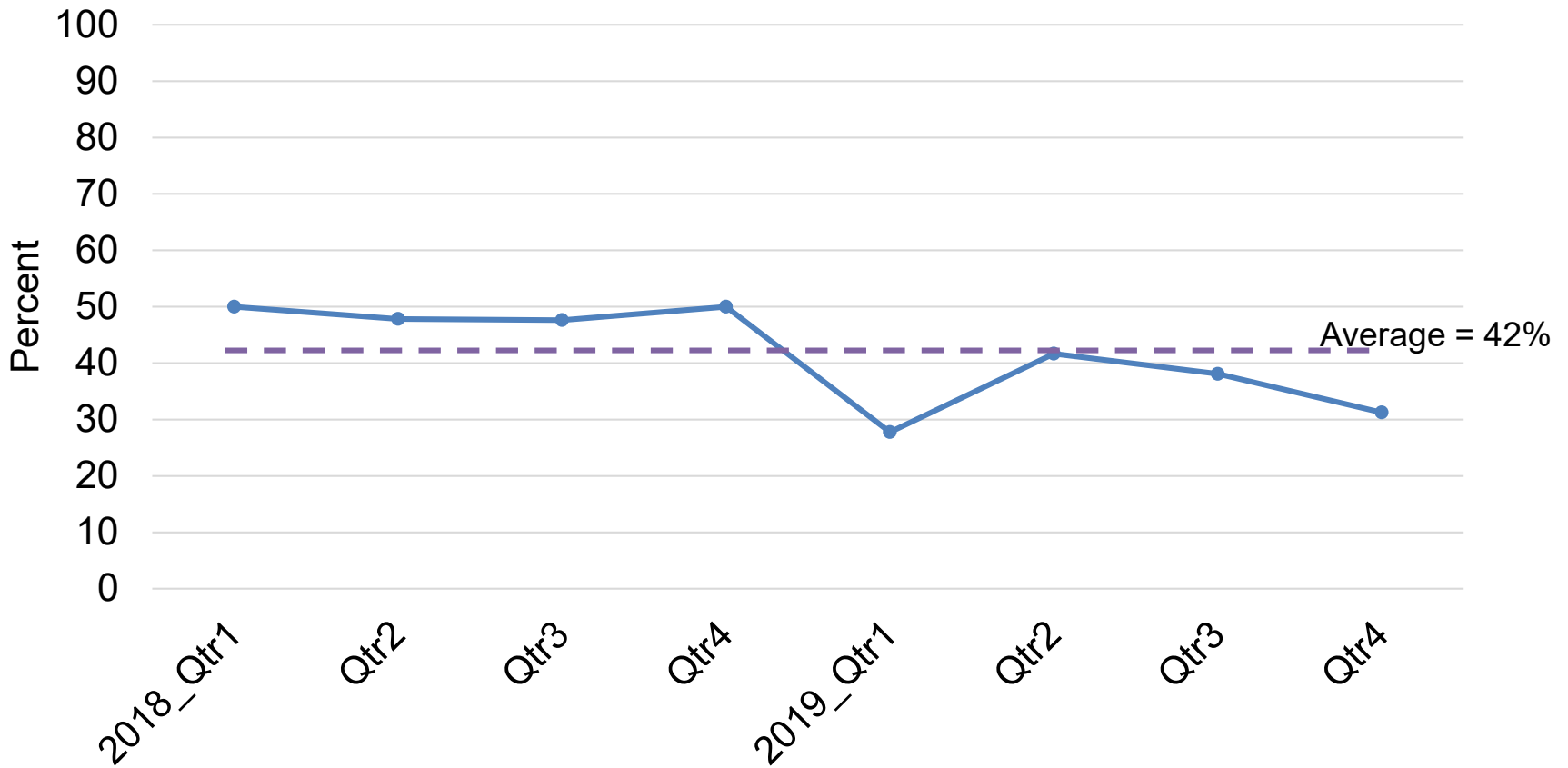
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Baseline Data 2018-2019

Completed Speech Evaluations 6-12 Months



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Project Aim

Among infants with permanent hearing loss, increase the percentage of infants seen for speech/language evaluation between 6-12 months of age from 42% to 80% by March 2020 and sustain/improve for an additional 12 months.



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Hearing Program Infant Language Intervention

Project Leader: Ursula Findlen

Aim

Among infants with permanent hearing loss, increase the percentage of infants seen for speech/language evaluation between 6-12 months of age from 42% to 80% by March 2020 and sustain or improve for an additional 12 months



Maximize speech & language outcomes for children with hearing loss

Key Drivers

Timely speech/language referral

Coordinated care team recommendations

Triaging/scheduling process

Speech-language evaluation protocol

Family education



Hearing Program Infant Language Intervention

Project Leader: Ursula Findlen

Interventions

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Family education

Evaluate referral process

Implement sustainable referral system

Evaluate care team recommendations

Standardize recommendations

Evaluate triage process

Implement Hearing Program Scheduling Coordinator

Evaluate current speech protocol

Standardized evaluation process

Evaluate family education materials

Standardize materials and dissemination

Maximize speech & language outcomes for children with hearing loss

Complete In Process Pending

Hearing Program Infant Language Intervention

Project Leader: Ursula Findlen

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Complete	In Process	Pending
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Hearing Program Speech Pathology Team



Janelle Huefner, MA, CCC-SLP, A/AOGPE



Shana Lucius, MA, CCC-SLP, LSLS Cert. AVT



Mary Lofreso, MA, CCC-SLP



Erin Stefancin, MA, CCC-SLP



Laruen A. Wills, MA, CCC-SLP



Lauren Yoshihiro, MA, CCC-SLP



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Evidence-based Practice Process

Literature, governing body guidance,
and clinical assessment review

Evaluate peer-institution models

Formulate proposed clinical practice
guideline

Peer review, if possible

Consensus building for
implementation across all providers



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Speech Protocol- Birth to 36 months



Communication Evaluation

1. Formal/Standardized Testing
 - PLS-5, CASSLS, REEL-3
2. Parent Education
3. Direct Therapy Plan

Implemented 12/1/2019



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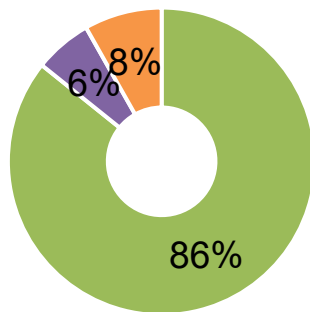


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Patient Demographics

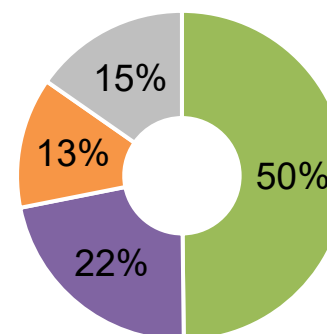
Children born between 1/2017 and 12/2019 (n = 281, 58% male)

Diagnosis by 3 Months



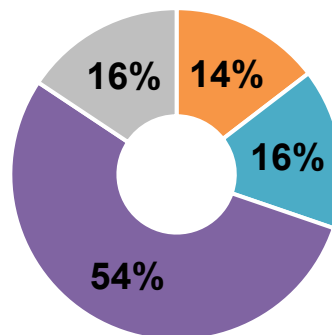
■ Met 0-3 ■ Delayed 4-6 ■ Late 7-12+

Device Intervention by 6 Months



■ Met 0-6 ■ Delayed 7-12
■ Late 12+ ■ No Device

Devices



■ BCD ■ CI ■ HA ■ None



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Expected Timeline of Project

Summer 2019

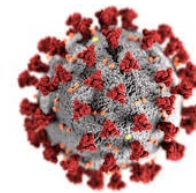
Project
Planning and
Baseline Data

**October
2019-
January 2020**

Interventions
Implemented

Sept 2019
Key Drivers
and
Interventions
Devised

**February
2020- Sept
2020**

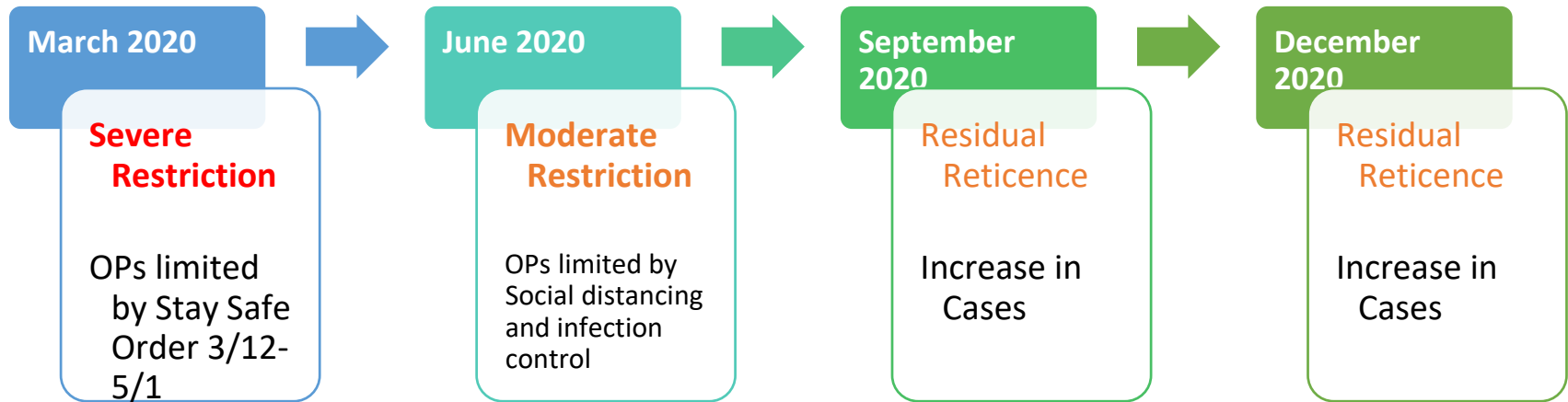


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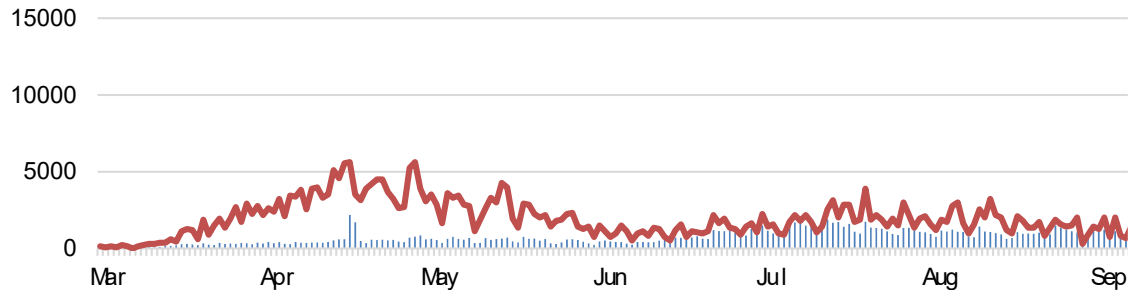


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COVID-19 Timeline in Ohio



Daily Cases and Mortality

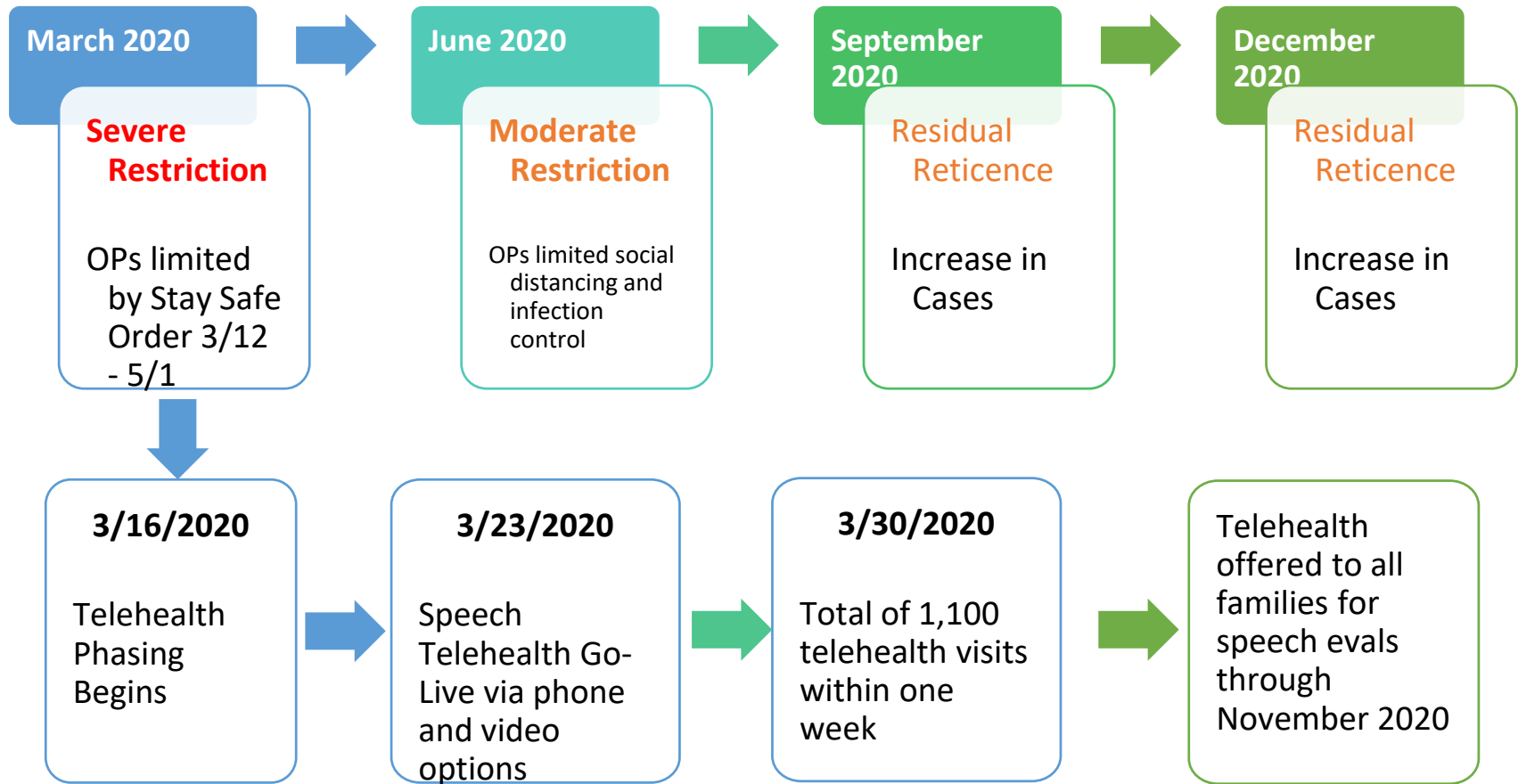


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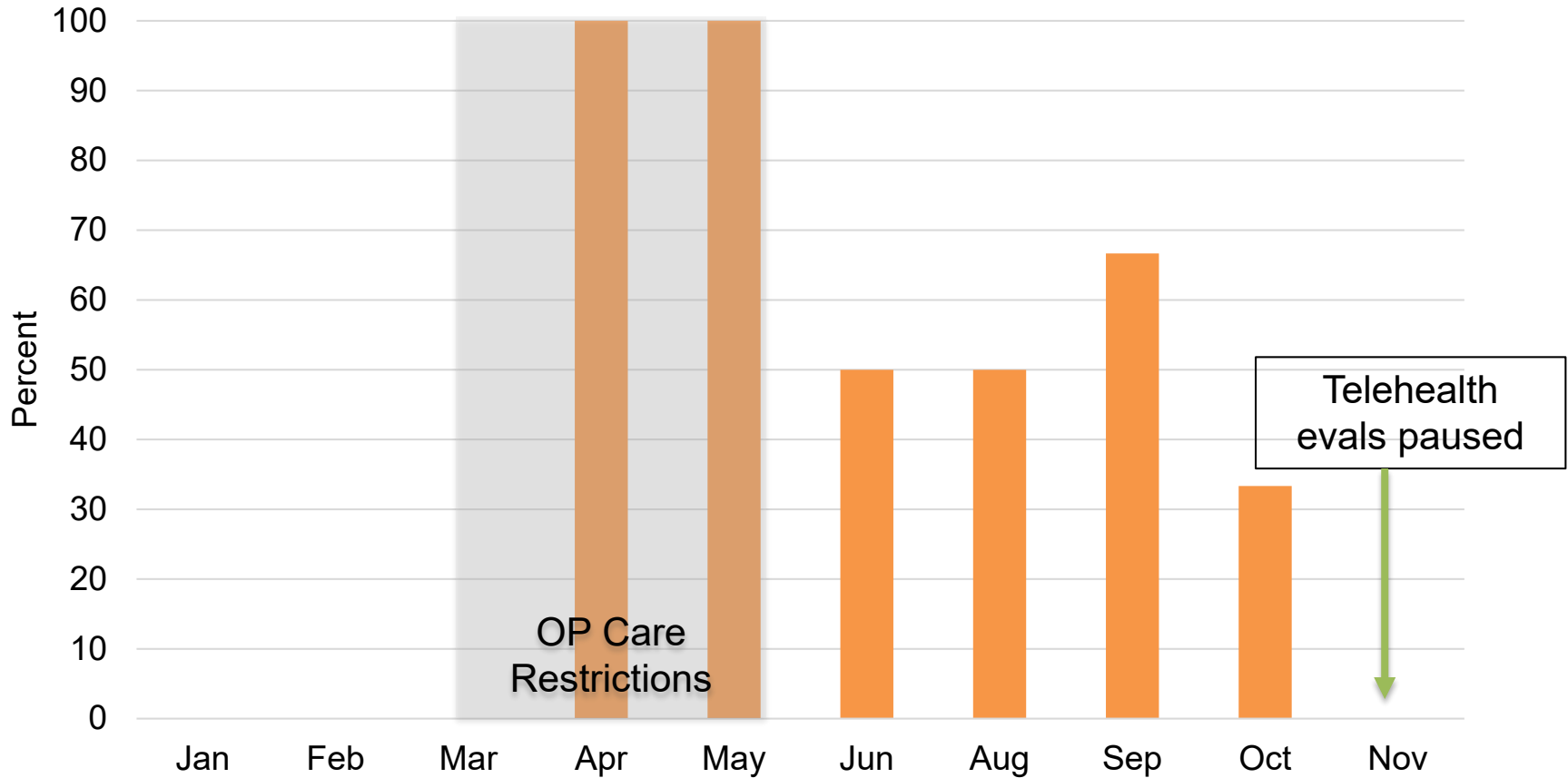
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Pivoting to Telehealth



Telehealth Helps Sustain Baseline

2020 Telehealth Speech Evaluations



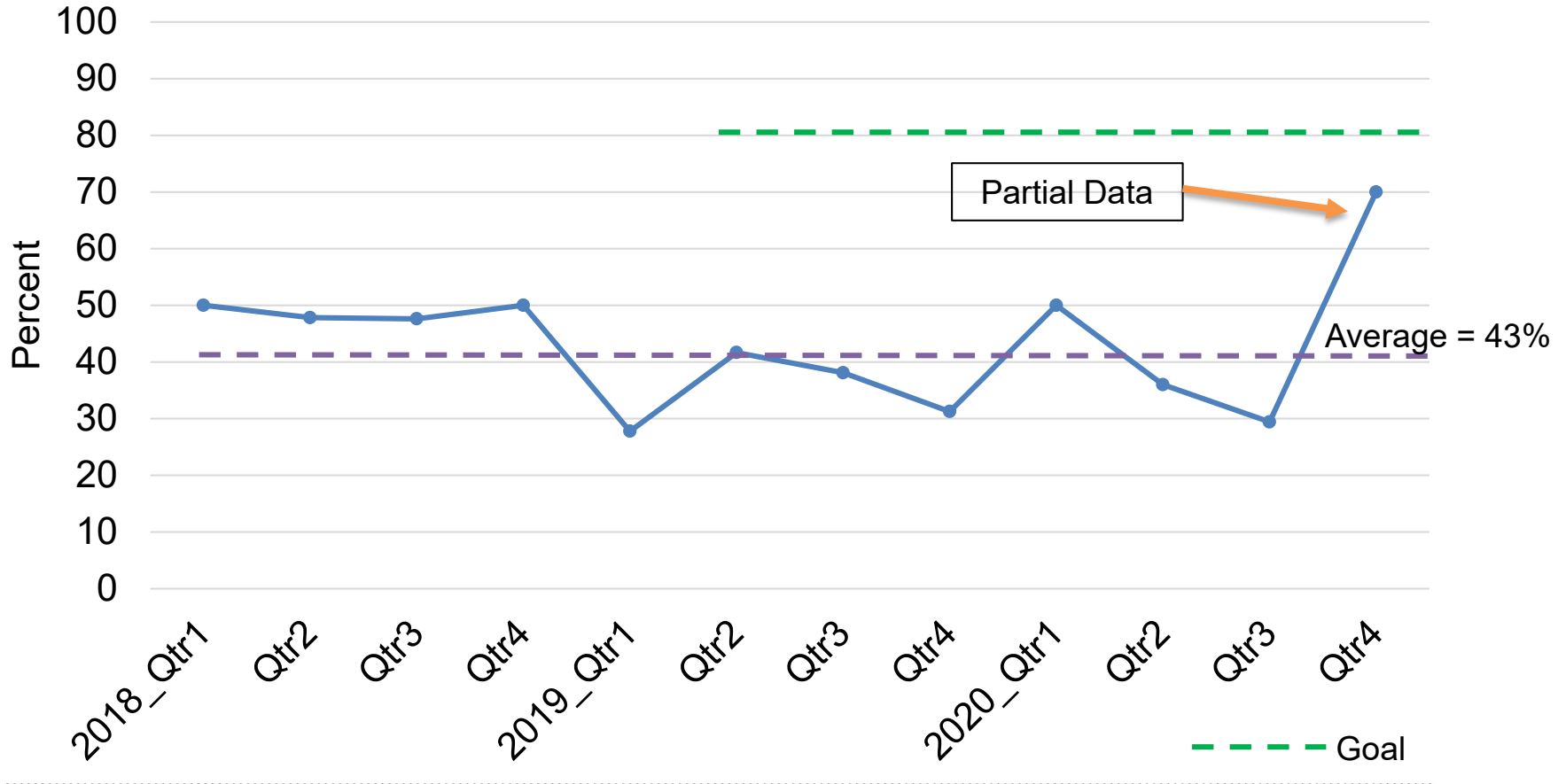
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Telehealth Helps Sustain Baseline

Completed Speech Evals 6-12 Mos



Future Directions

- Monitor current interventions and develop new interventions to improve overall outcomes for speech early intervention
- Monitor use of telehealth services to facilitate language intervention in children with hearing loss
- Evaluate parent satisfaction of telehealth services
- Evaluate speech outcomes of children enrolled in in-person therapy versus teletherapy to assess efficacy



Thank you!



Ursula Findlen- Contact Information

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