

MISSOURI

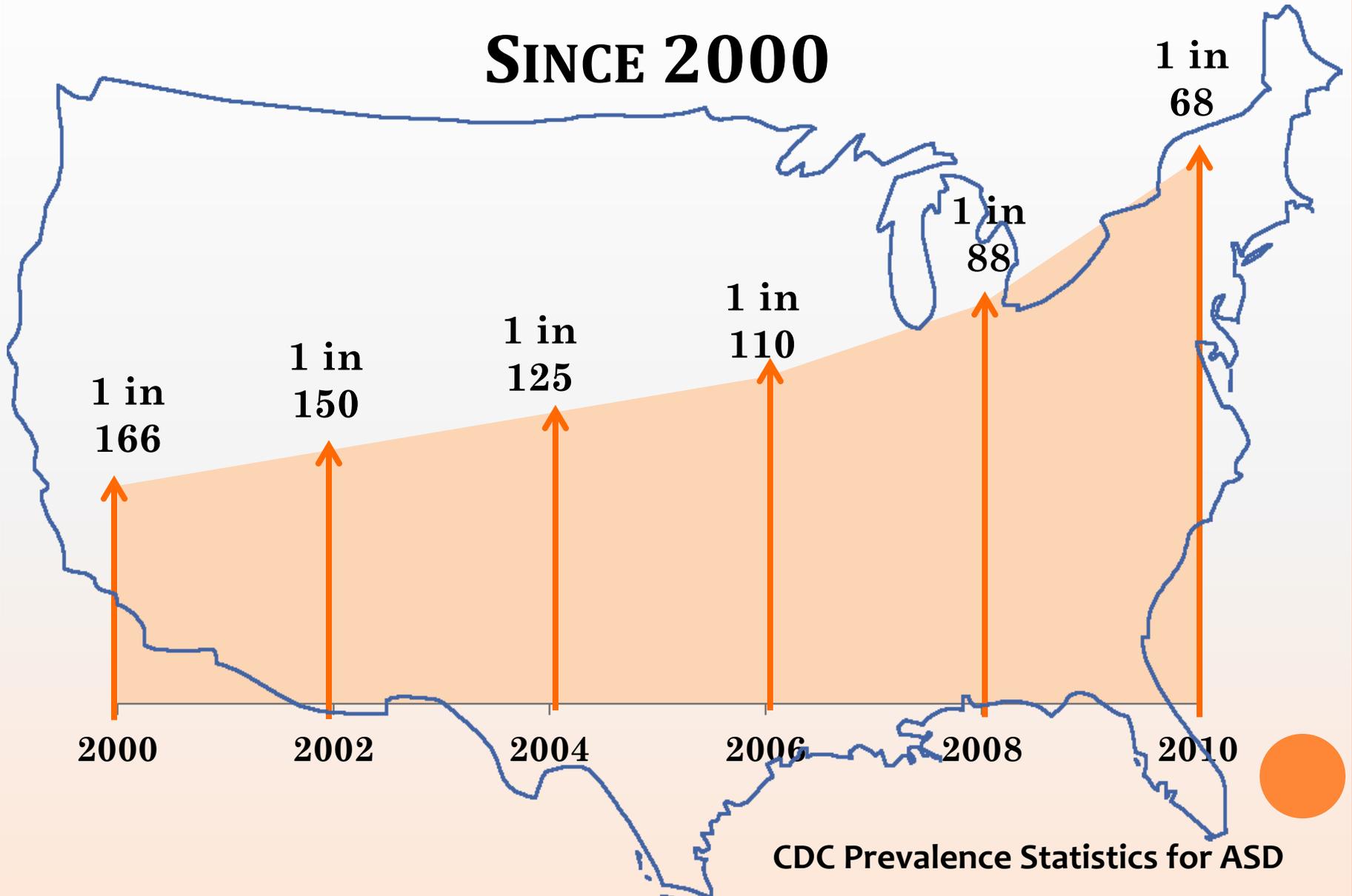
AUTISM

CENTERS

Progressive Partnerships



AUTISM PREVALENCE SINCE 2000

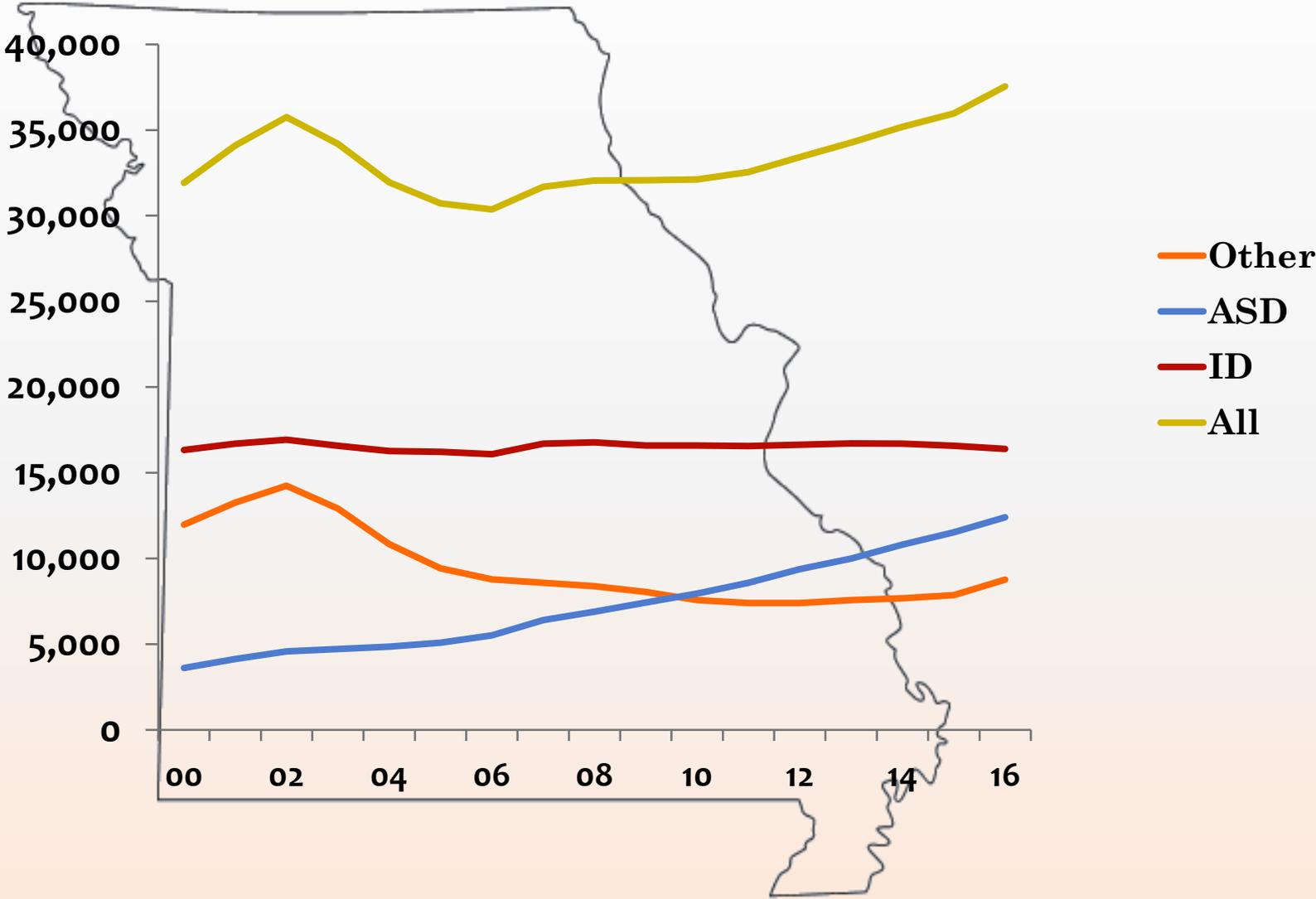


STUDENTS IDENTIFIED WITH ID AND AUTISM 2000 - 2010

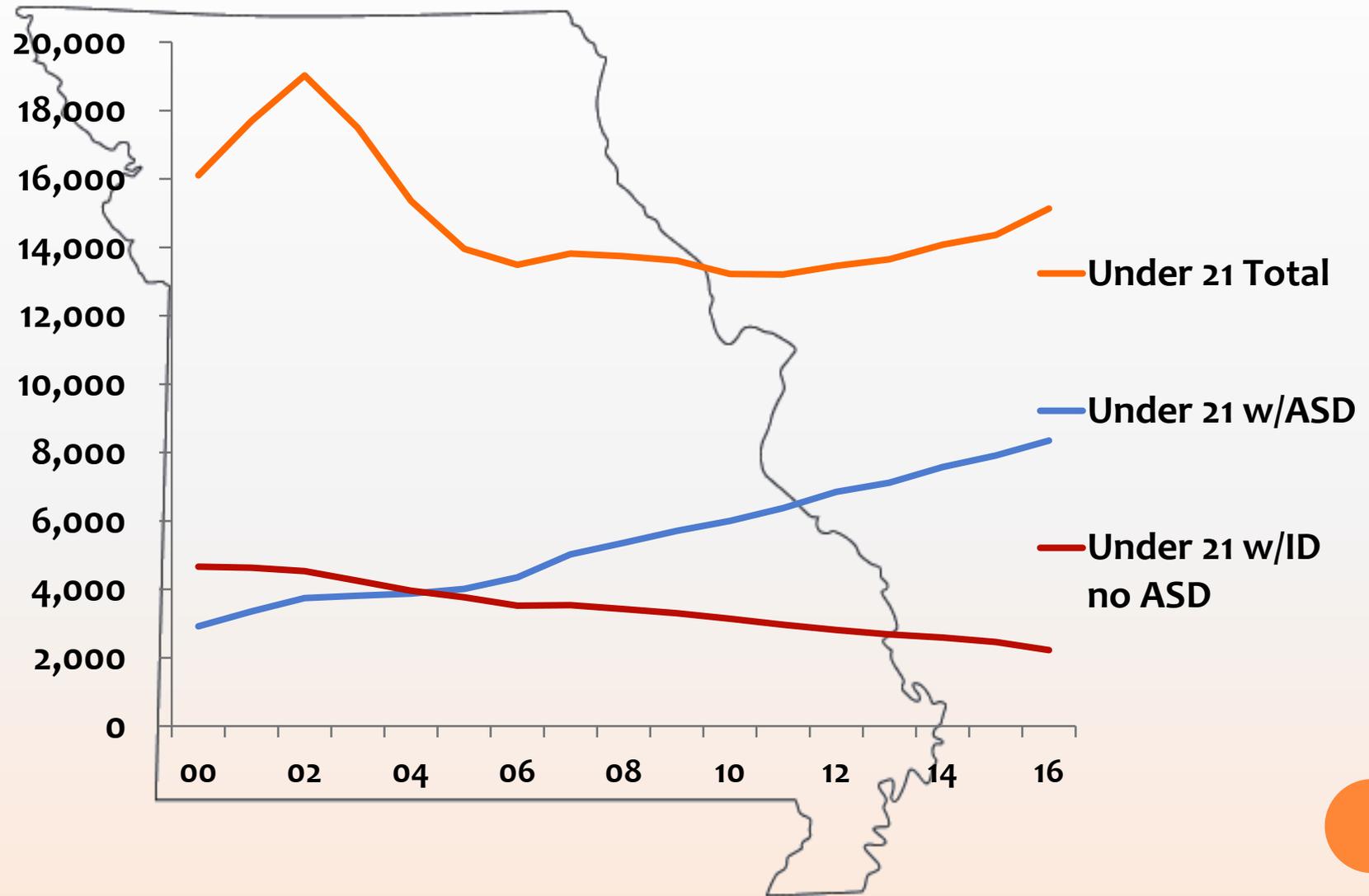


Penn State

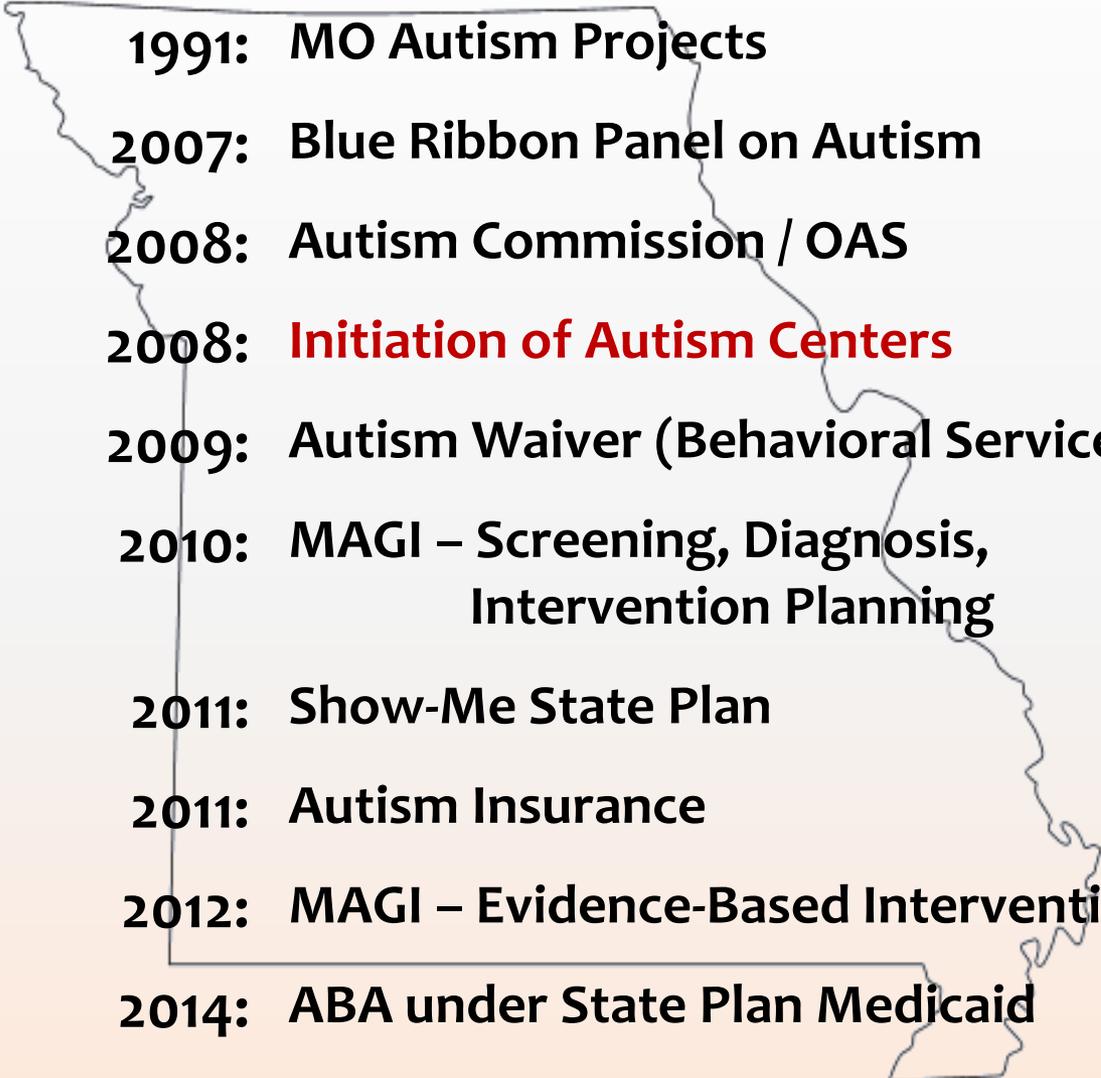
DD CENSUS 2000 - 2016



DD CENSUS - UNDER 21



MISSOURI RESPONSE

- 
- 1991: MO Autism Projects
 - 2007: Blue Ribbon Panel on Autism
 - 2008: Autism Commission / OAS
 - 2008: **Initiation of Autism Centers**
 - 2009: Autism Waiver (Behavioral Services)
 - 2010: MAGI – Screening, Diagnosis, Intervention Planning
 - 2011: Show-Me State Plan
 - 2011: Autism Insurance
 - 2012: MAGI – Evidence-Based Interventions
 - 2014: ABA under State Plan Medicaid
- 

AUTISM CENTER TIMELINE

2008:

**Cardinal Glennon
Children's Mercy
Thompson Center**

2009:

SEMO Autism Center

2015:

Washington University Autism Clinic

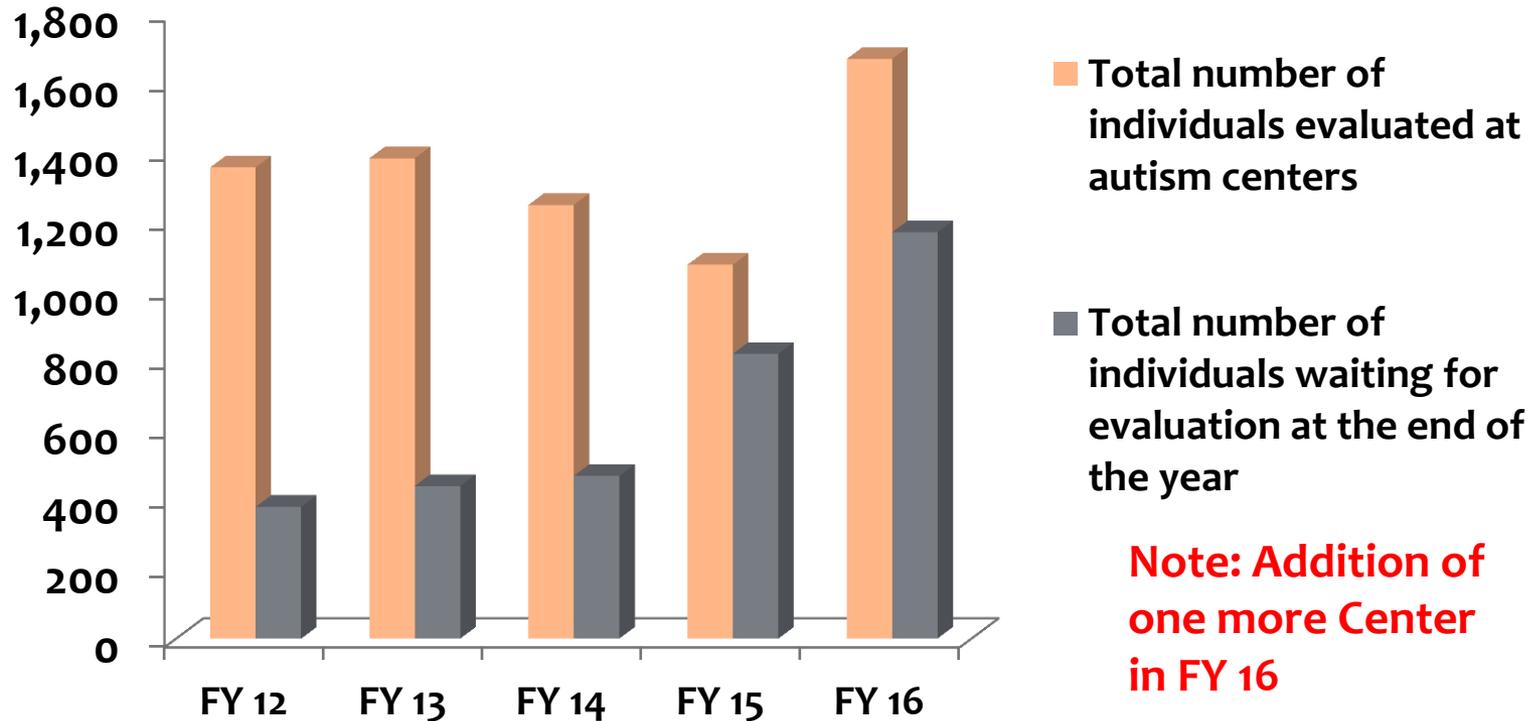
2016:

Mercy Kids Autism Center



AUTISM CENTERS

INDIVIDUALS SERVED AND WAITING END OF YEAR



CARDINAL GLENNON: DIAGNOSTICS

○ **Multidisciplinary Diagnosis**

- Physicians (multispecialty), Psychology, Speech, OT
- Easier Epic referral with PCP involvement
- Increased referral number

○ **Family Support**

- Waiting list/Service access

○ **Family Advisory Committee**

○ **Programs**

- Move to Communicate
- Dog Therapy Clinic
- Dental Care for Children with ASD
- Reach Out and Read
- Special Olympics Missouri

○ **Ambassador Choice Award**



CARDINAL GLENNON: EDUCATION & TRAINING

- **Grand Rounds/Web/Online/Workshops/Direct Training**
- **Professionals**
 - Fellowship in Developmental Pediatrics
 - Medical: Pediatricians, Child Neurology, Physician Assistants
Adult Medicine: Psychiatry, Family/Internal Medicine
 - Educators: Parents as Teachers, IEP, School
 - Therapists
 - First Responders: STARS
- **Trainees**
 - MS/Residents: Pediatrics, Psychiatry, Neurology, Internal Medicine, Family Medicine, Physician Assistants
 - Undergraduate, Graduate Students: ST, OT
- **Families**
 - Resource Specialists, FAC, MPACT, Transition, PEERS, MTC



CARDINAL GLENNON: PROGRAM HIGHLIGHT

- **Program for the Education and Enrichment of Relational Skills (PEERS)**

What? Evidence-based social skills training

- Social communication
- Friendship
- Bullying

Who? 12-18 year old individuals with social deficits including parent training

Where? KOC and St. Luke's Hospital

- **Expansion: Trainers for trainers in Mehlville School based PEERS**
- **St. Louis County Children's Service Fund**
- **Target: Clinical, Research, Education**



CHILDREN'S MERCY: DIAGNOSTICS

- Year 1: 161
- Year 9: 494 (206% increase from Y1)
- Total Years 1-9: 3,452

Additional Staff: 6 psychologists – providing variety of services, SLP, OTR, - portions of these dedicated to our teams, Education Coordinator and Family Resource Specialist, and Program Coordinator



CHILDREN'S MERCY: EDUCATION & TRAINING

- **Trainings to Students/Professional Staff:**
medical staff, community professionals – police, fire, nurses, care assistants, EMS, teachers, early childhood educators, First Steps, Regional Office, Head Start, etc.

Total Served: 11,537

- **Trainings to Families:** Newly Diagnosed Family Meeting; ABA, Managing Your Child's Home and School Program; Eating and Enjoying It, etc.

Total Served: 1,885

- **Family Resource Coordinator:**

2,282 Referrals / 11,165 Contacts Made



CHILDREN'S MERCY: PROGRAM HIGHLIGHT

Professional
Training

Research
Program

Online Family
Trainings

Weight
Management

Children's
Mercy
Kansas
City

AUTISM

State of
Missouri
Autism
Funding

Community
Education

CM Sensory
Committee

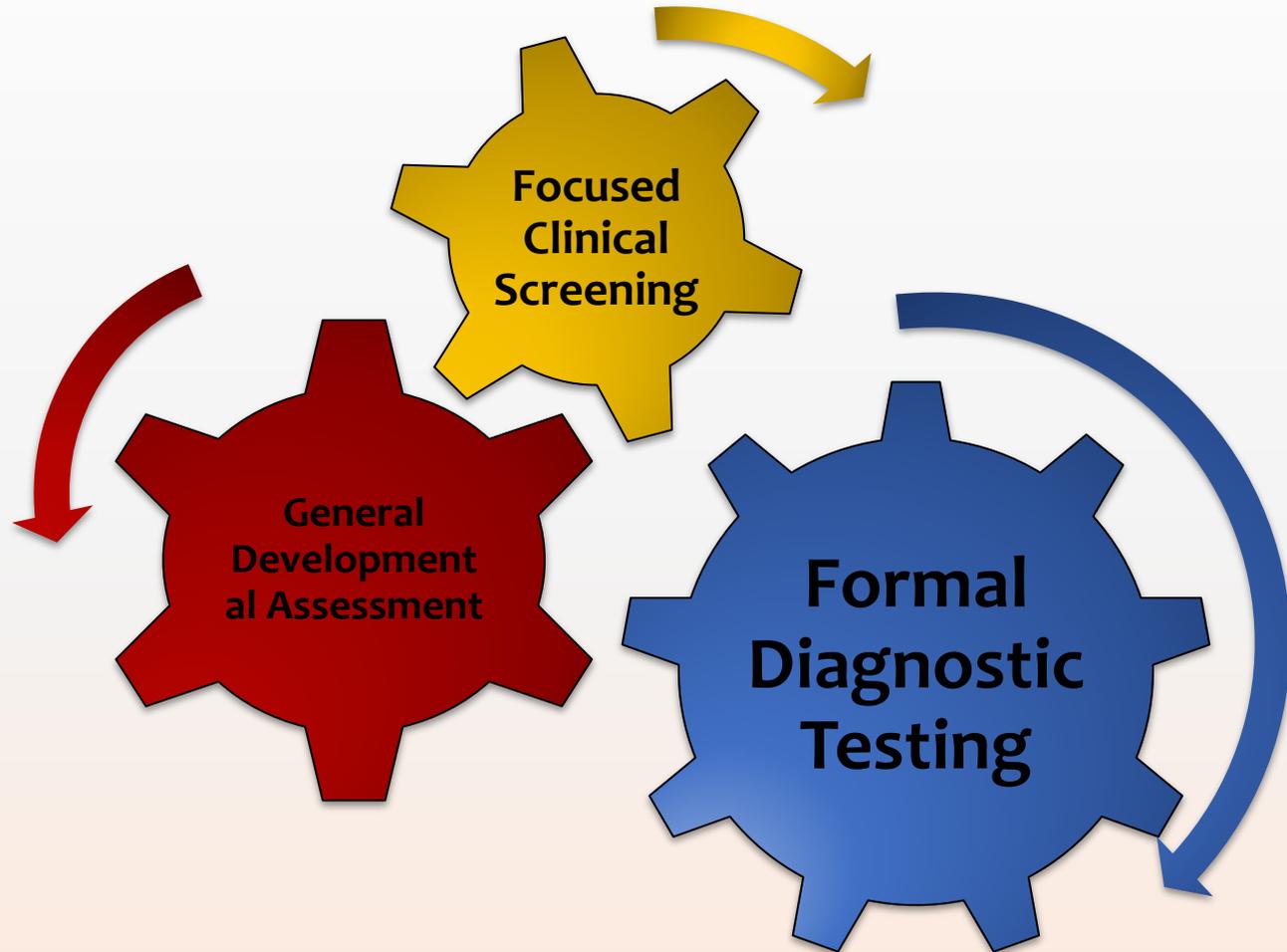
Family
Autism
Trainings

Targeted
Behavior
Intervention

Community
Transition
Catalyst



MERCY KIDS AUTISM CENTER: DIAGNOSTICS



MERCY KIDS AUTISM CENTER: EDUCATION & TRAINING

Training Future Clinicians:

- **BCBA and BCaBA Practicum**
- **OT and SLP Training**
- **Mercy Family Medicine Residents Training**
- **LPC Internship Program**



MERCY KIDS AUTISM CENTER: PROGRAM HIGHLIGHT

MKAC Intensive Early Intervention Program/ESDM

- Evidence-based EI program within day-care setting; innovative, adapted model to group setting and have developed extensive additional training modules; 13 therapists and BCBA's have completed or are in active certification process
- Recent expansion – allowed for 200% growth in number of children we can serve at one time; expanded age range to 18-60 months or kindergarten eligibility
- Planned expansion to other location within St Louis and St Charles County regions



SEMO AUTISM CENTER: DIAGNOSTICS

- **Coverage Area: 19 Counties**
 - **Paucity of psychological services in our area – Great need for diagnostic services**
 - 2 Psychologists providing comprehensive autism evaluations
 - 10 Psychologist regularly providing any type of diagnostic evaluation*
- **Center Diagnostic Staff**
 - **2 Psychologists and 2 Speech Pathologists**
 - Diagnostic rate for children under 4 is 40-60%
 - Diagnostic rate for children 5-10 is 35-50 %
 - Diagnostic rate for adolescents and adults is 10-30%



SEMO AUTISM CENTER: EDUCATION & TRAINING

- Internship and practicum through Southeast Missouri State University
 - Mental Health Counseling Practicum and Internship
 - Psychology Internship
 - Speech Pathology Internship
- Training
 - School based training on dual diagnosis (DD and MI)
 - Community-based training (Summer Institute)
 - Differential diagnosis and screening
 - Behavioral interventions
 - Speech interventions



SEMO AUTISM CENTER: PROGRAM HIGHLIGHT

Head Start Collaboration – Delta Area

Purpose: early diagnosis for families with numerous barriers

○ Rural communities

- High rates of poverty
- Lack of reliable transportation
- Limited access to primary care
- Paucity of psychological service providers
- First contact with professionals assessing child development

○ Triage and Testing

- Ages Stages Questionnaire – Social Emotional (screening is federally mandated and ASQ used to assist)
- SCQ – confirmation of need for ASD testing
- ADOS 2 completed at local Head Start by Center Psychologist



THOMPSON CENTER: DIAGNOSTICS

- **What are we doing?**
 - Recruiting more providers
 - Training more providers
 - Increased expertise on diagnostic measures, e.g. research reliability on ADOS
 - Working on quality, utilization, and efficiency projects
 - Blitz
 - No-show rates
 - New clinics
 - Improved triage
- **What are our barriers?**
 - Hard to recruit
 - Funding
 - Seeing more kids may not decrease the waitlist



THOMPSON CENTER: EDUCATION & TRAINING

○ Parent Training

- Next Steps: Post Diagnosis Training
- Regional One Day Conferences
- Quarterly Invited Community Presentations

○ Professional Training

- **TEAM** - Behavior Analysts, Care Coordination, Education, Medical
- Annual Autism Conference
- Online video modules
- Autism Friendly Business (AFB)



THOMPSON CENTER: PROGRAM HIGHLIGHT

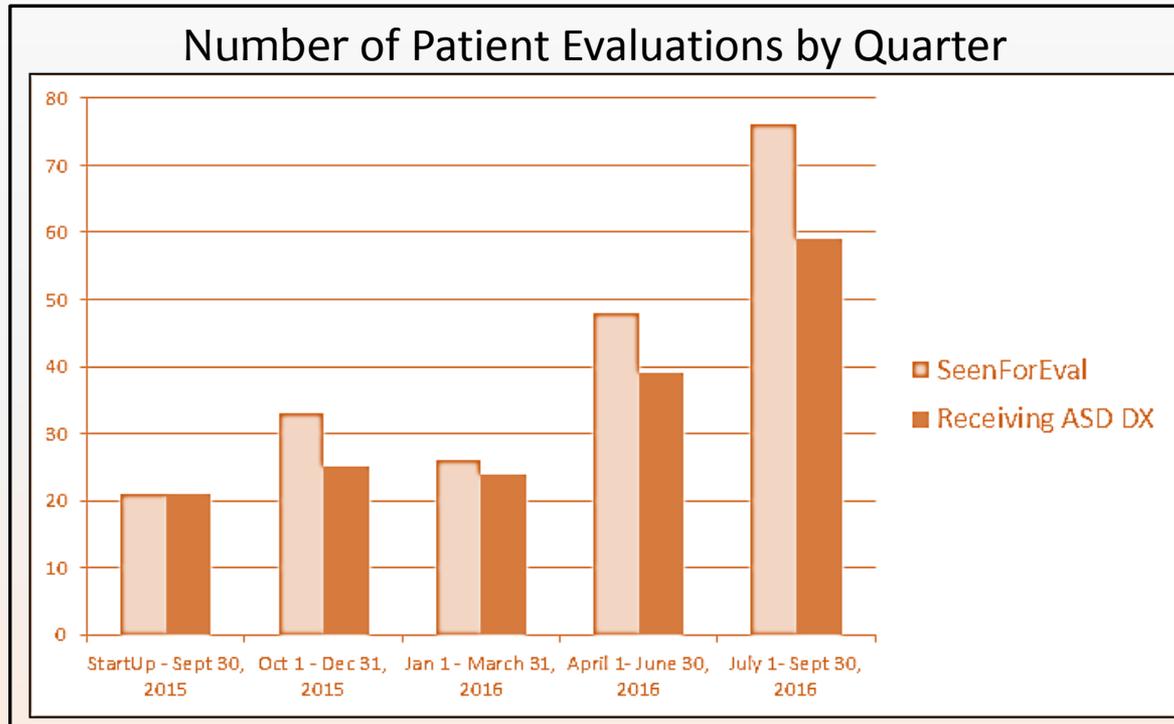
- **Graduate training in ABA**
 - **Master's of Science in ABA Program**
 - **Graduate Certificate in ABA Program**
- **Expansion of ABA Services**
 - **Increase services for families**
 - **Increase geographical reach**



WASHINGTON UNIVERSITY: DIAGNOSTICS

Indicated below is the proportion of each staff member's FTE that is devoted to the WU-ACC, with total costs offset by program income from insurance reimbursement, such that the state subsidy is leveraged to secure a substantially higher level of effort:

Eric Wittrock, DO 15%	Mike Bunis, PsyD 40%	Amy Guignon, BCBA 100%	Jennifer Bay, HS 25%
Natasha Marrus, MD, PhD 10%	Mike Gaffrey, PhD 20%	Brandon May, BCBA 40%	Megan Panther, MBA 25%
Bryan Sewing, DO 10%	Elizabeth Judd, CPNP, MSN 85%	Katie Bogan, OTD, OTR/L 25%	Michelle Rodgers, BS 20%
John Constantino, MD 5%	Rebecca Light-Pearlman DNP, CPNP 45%	Donna Sand, HS 15%	Mini Tandon, DO 5%



Administered to all patients				Additionally Administered (based on age: birth-12 months, 13-30 months, 31-48 months, and 49 months+)										
Adverse Life Events	CGAS	PSI	ABAS	CSPS-DP	Ages & Stages	MCHAT	vrRSB	CBCL	SCQ	SRS-2	CARS-2	MOAS	Vanderbilt	PSC

WASHINGTON UNIVERSITY: EDUCATION & TRAINING

- **Early Preventive Intervention Training**
 - In-home, 16-week, parent-implemented interventions for children birth-2 years, taught by OT & BCBA
- **Training the Next Generation of Child Psychiatrists**
 - Direct clinic-experience training for an average of 35 residents, fellows, and medical students per quarter
- **Conferences, Seminars & Lectures**
 - **Cross-departmental/discipline audiences at:**
 - Autism Seminar Series, 'Nuts & Bolts' lecture to child psychiatry trainees, Developmental Psychopathology Series, Pediatric Psychiatry for the Primary Caregiver CME event, Sex Differences in Development and Disease of the CNS Symposium
 - Avg. 3 conferences and/or seminars per quarter, reaching 30 students, 150 professionals, and 50 families
- **Community Presentations**
 - WU-ACC faculty and staff are members/affiliated with the following organizations, working together to present to the greater St. Louis region and beyond:
 - St. Louis Children's Hospital, AACAP, MDMH Regional Behavioral Support Plan Review Committee, INSAR, University of Vermont

WASHINGTON UNIVERSITY: PROGRAM HIGHLIGHTS

In addition to diagnostic assessment and education/training opportunities, WU-ACC offers:

- Behavioral Support/Comprehensive Intervention Planning
 - 2 BCBA's modify inadequate positive behavioral support plans, or create new plans for families

- Developmental and Behavioral Assessment Unit (DBAU)
 - In-depth cognition, development, and behavior testing, when indicated

- Specialty Medical Consultation/Psychiatric Care
 - CMA testing (through separate funding source) provided, as indicated

	Sex	Genomic Screening Positive Results
1	M	10q21.3 loss (deletion)
2	M	16p13.11 loss (deletion)
3	M	16q23.2 loss (deletion)
4	F	17p13.3 loss (deletion)
5	M	17q12 loss (deletion)
6	M	17q23.3 loss (deletion)
7	M	18q21.1 gain (duplication)
8	M	19q13.33 loss (deletion)
9	M	1p35.3 loss (deletion) and 6q14.2-q14.3 gain (duplication)
10	M	1q42.12 loss (deletion)
11	M	22q11.21 gain (duplication)
12	M	2p21 (duplication)
13	M	3p22.2 loss (deletion) and 16p12.2 gain (duplication) and 20p12.3 gain (duplication)
14	M	4q31.3 gain (duplication) and 12p12.2-p12.1 loss (deletion)
15	M	7p14.3 gain (duplication) and 16p13.11 loss (deletion)
16	F	7q21.11 gain (duplication)
17	M	Absence of heterozygosity at 6p23p22.1
18	M	Absence of heterozygosity on Chr 15
19	M	FBXO11-related disorder
20	M	MYT1L-related disorder
21	F	GRIA2 NEW DISCOVERY
22	M	GPD2 NEW DISCOVERY
23	M	EZH2 (Weaver syndrome)
24	M	CNTNAP2 and IQSEC1 (non-definitive)
25	M	MYH14 and NSDHL (non-definitive)
26	M	RET oncogene (Incidental variant)
27	M	IQSEC2-related disorder
28	F	TMED240 (Spinocerebellar ataxia 21)
29	F	SCN2A-related disorder
30	F	MED13L-related disorder
31	M	BCAP31-related disorder
32	F	FOXP1 Atypical Rett syndrome

MAINTAINING MOMENTUM



- **Collaboration**
- **Bridging gaps**
- **Maximizing and leveraging public investment**
- **Employment**
- **Common Baseline Data Collection – MO ACs**

