“Strategies for Inclusion in Health and Fitness Services and Programs”

THE UNIVERSITY OF ARIZONA
COLLEGE OF MEDICINE TUCSON
Sonoran Center for
Excellence in Disabilities

Impact on Access and Cost of a Model Integrated Primary Care Program for Adults with IDD

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Acknowledgements

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Authors

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The Mission

- **Persons with disabilities have the right to:**
  - **health care with the same range, quality, and standard of care as the general population,**
  - **services specific to their disabilities**
  - **services as close as possible to their own communities.**

    - **(Article 25 of the 2006 UN Convention on the Rights of People with Disabilities).**

The Challenge

- **Adults with intellectual/developmental disabilities (I/DD):**
  - **have difficulties finding accessible, competent primary care,**
  - **are less likely to receive preventive services,**
  - **have higher rates of preventable chronic disease.**

The Current Status

- **Models for providing such care for people with I/DD range from integrated multi-disciplinary co-located clinics (often university-based) to integrated primary care for adults (often community-based).**
- **In this project's home state pf Arizona, less than 5% of people with intellectual/developmental disabilities live in an institutional setting, and 25% live in rural areas.**

The Current Status

- **Adults with intellectual/developmental disabilities**
  - **are a growing population**
  - **are increasingly living in the community and reliant on community resources,**
  - **in some states, many will live in rural areas.**

In order to reach more people with intellectual/developmental disabilities:

- **Primary care practices must be prepared to deliver competent, accessible care**
- **Practice innovations must be developed that can be implemented in a broader range of primary care settings**
- **Successful models should be demonstrated to improve outcomes,**
- **Practice innovations must be sustainable (reduce costs)**

Model Coordinated Primary Care Program for Adults with I/DD

- **In the University of Arizona Family Medicine Residency Teaching Clinic**
- **Located at Banner University Medical Center South**
  - **Teaching clinic**
  - **High minority and underserved population**
- **24 family medicine resident physicians**
- **13 faculty physicians**
- **Five nurse practitioners**
- **One person with a masters in social work**

Elements of the program

- **Physical accessibility,**
- **Identification of clinic patients with intellectual/developmental disabilities**
- **Case management**
- **Enhanced access to care,**
- **Practice standards**
- **Visit templates**
- **Staff/provider education**

Physical access

- **Power door operators at interior and exterior entrances**
- **Lowered counter space**
- **Convenient spaces for people who use wheelchairs**
- **Chairs at different heights some equipped with arm rests**
- **Wheelchair accessible scale**
- **Each pod has a height adjustable examination table**

Physical Access

- **The next slide shows a drawing of our exam rooms, with an open table with a computer on it, which allows for wheelchair access and family access in a side-by-side encounter with health care provider**

OPTION 1

Identify Potential Patients

- **Inform residents, faculty and staff (nursing and front desk)**
- **Keep informing**
- **Review patient appointment roster daily**
- **New patients**
- **UCEDD website**
- **Local referrals**
- **Word of mouth (parents, other caregivers)**

Case management

- **New case manager specific to the project**

0.50 FTE (half time) with a Masters Degree in Social Work or equivalent

- **Assists with Access to Care**
  - **Primary contact for patients, families, care providers (cell phone)**
  - **Schedules appointments in FMC (30 minute)**
  - **Facilitates first visit, assures transfer of records**
  - **Assists with access to subspecialists**
- **Facilitates interactions with DDD and other community services**

Case management

- **Available to staff and providers by EHR and cell phone**
- **Attends patient visits with providers**
  - **Provides immediate follow up**
  - **Models person-first language, patient directed care, shared decision making,**
  - **Initiates questions about and provide support for family, social, and cultural dimensions of care.**
- **Completes template annually**

Practice Standards

- **Lead physician (Dr Bassford)**
  - **Staff training (for example, person first language, correct weights for people using wheelchairs)**
  - **Resident Education**
  - **Support of providers through co-visits, telephone consultation, electronic health record messaging**
  - **Oversight through regular record review of program participants**

Practice Standards

- **Visit Template**
- **Templates for letters (wheelchair, incontinence briefs, guardianship, etc.)**
- **Tools such as the NTG-EDSD**
- **Flu vaccine outreach**
- **“Opportunistic screening” (Dr. Bassford’s patients only)**

Resident Education

- **Person Centered Interview and Physical Examination, and Approaches to Diagnostic Testing**
- **Health Care for Adults with Down Syndrome**
- **Health Care for Adults with Neural Tube Defects**
- **Health Care for Adults with Cerebral Palsy**
- **Health Care for Adults with Autism**
- **Health Care for Adults with Prader Willie and Angelman Syndromes**

Resident Education

- **Dementia and Cognitive Decline in People with I/DD**
- **Capacity and Consent for People with I/DD**
- **Sexuality, Education, and Abuse Prevention for People with I/DD.**
- **Introduction to Systems of Support and Care for People with I/DD**
- **Introduction to Disability Culture, Social and Legal History for People with I/DD**

Visit Template

- **Electronic Health Record template for the patient note, has “hard stops”**
- **Whole person focus**
- **Includes social history, screening, wellness questions, communication methods, other visit preferences,**
- **Adapted from several sources**
  - **Vanderbilt E-Tool Kit for PCP**
  - **Canadian Developmental Disabilities Primary Care Initiative**
  - **National Core Indicator**

Analysis of Medicaid beneficiaries with intellectual/developmental disabilities

- **Program impact on quality and cost was assessed by comparing program patients to those in the statewide population of youth/adults with I/DD served by AHCCCS (Arizona Medicaid).**
- **We used de-identified insurance claims data for all I/DD patients covered by Medicaid in Arizona**

Analysis of Medicaid beneficiaries with intellectual/developmental disabilities (I/DD)

- Compared the general I/DD population, and a population matched by diagnosis, to those who were treated by providers at our program
  - Data was provided by AHCCCS via the Center for Health Informatics Research at Arizona State University.
  - Analysis performed by the Center for Population Science & Discovery at the University of Arizona (UA

- **Analysis began with the universe of beneficiaries with at least one I/DD diagnosis**
- **Examined the specific conditions (using ICD-9 codes) among patients treated by our program (“treatment group”)**
- **The comparison sample was created from the general population by including only those patients with a condition represented in the treatment group and excluding those with a condition not present.**

The next slide shows that the three groups (our program, the state wide sample of people with I/DD diagnoses, and the comparison sample of people with matched I/DD diagnoses)

had similar percentages of people with most of the different disability diagnoses,

except that the program had a lower percentage of people with the diagnosis of "intellectual disability" and the program had a higher percentage of people with the diagnosis of "developmental delay"

Table 1: ID/D Condition Prevalence by Treatment Group Status				
ID/D Condition (ICD-9)	Arizona ID/D Medicaid Population	ID/D Comparison Group	UCEDD Treatment Group	p-value of difference (Comparison vs. Treatment)
Intellectual Disability (319.0)	48.7%	49.9%	36.7%	0.006
Developmental Delay (315.9)	19.0%	19.4%	33.9%	<0.001
Cerebral Palsy (343.9)	18.5%	19.2%	20.2%	0.786
Spastic Paraplegia (344.1)	11.0%	11.4%	14.7%	0.281
Autism (299.0)	14.7%	15.1%	7.3%	0.024
Spastic Quadriparesis (344.00)	6.7%	7.0%	7.3%	0.893
Severe Intellectual Disability (318.1)	4.4%	4.5%	5.5%	0.599
Pallister Hall Syndrome (759.89)	3.3%	3.4%	5.5%	0.221
Unspecified lack of normal physiological development (783.40)	5.3%	5.4%	5.5%	0.952
Down Syndrome (758.0)	7.8%	8.1%	4.6%	0.182
Sturge Weber Syndrome (759.6)	0.9%	0.9%	4.6%	<0.001
Development Aphasia (315.31)	1.0%	1.0%	2.8%	0.074
Spastic Cerebral Palsy (343.0)	2.3%	2.4%	2.8%	0.817
Chromosome 17 Abnormality (758.9)	1.0%	0.9%	2.8%	0.048
Unspecified Pervasive Development Disorder (299.9)	0.8%	0.8%	1.8%	0.203
Spastic Quad Cerebral Palsy (343.2)	3.0%	3.1%	1.8%	0.445
Profound Intellectual Disability (318.2)	1.5%	1.5%	0.9%	0.609
Spina Bifida (741.9x)	1.3%	1.3%	0.9%	0.728
Agenesis Corpus Callosum (742.2)	1.2%	1.3%	0.9%	0.754
Prader-Willi Syndrome (759.81)	0.4%	0.4%	0.9%	0.452
Two or more conditions	30.4%	31.2%	31.2%	1.000
Unique patient count	27039	25955	109	

The next slide shows that our program patients were more likely to be female (59.3%), Hispanic (29.6%) and older (39.5 years vs 37 years) than the comparison group

We used Clinical Classification software developed by the Health Care Cost and Utilization Project, to compare the prevalence of 7 common chronic conditions

We found that program patients more likely to have respiratory problems, and heart disease

The comparison population was more likely to have cancer and mental illness

Table 2: Demographics and Health Status by Treatment Group Status

	Comparison Medicaid ID/D Group	UCEDD Treatment Group
Female	44.6%	59.3%
Age	37.0	39.5
White	50.0%	38.0%
Hispanic	22.0%	29.6%
Asian	1.2%	2.8%
Black	5.4%	11.1%
Native American	11.2%	3.7%
Other race	2.0%	2.8%
Race not reported	8.2%	12.0%
Chronic conditions		
Diabetic	7.8%	7.4%
Respiratory problems	3.7%	9.3%
Hypertension	7.5%	7.4%
Heart disease	6.8%	9.3%
Cancer	2.7%	1.9%
Stroke	1.8%	1.9%
Mental illness	62.8%	52.8%

- **The next slide shows that program patients had almost twice as many professional visits for evaluation and management per year as the comparison group.**
- **The slide also shows that program patients had forty percent fewer other types of professional visits per year as the comparison group.**
- **The number of visits for screening visits (about one yearly)and hospital visit days (less than one yearly) was about the same for both groups.**

Table 3: Care Utilization by Treatment Group Status				
	Comparison Medicaid ID/D Group	UCEDD Treatment Group	p-value, univariate comparison	p-value, multivariate comparison
Average E/M visits per year	6.15	11.41	<.001	<.001
	(6.38)	(7.96)		
Average non-E/M professional visits per year	320.14	189.20	<.001	<.001
	(314.03)	(255.26)		
Average screening encounters per year	0.85	0.85	1.00	0.62
	(1.98)	(1.81)		
Average hospital visits per year	0.53	0.61	0.58	0.91
	(1.56)	(1.64)		
Average monthly cost	$2783.71	$2311.42	<.001	<.001
	(4895.62)	(3908.44)		

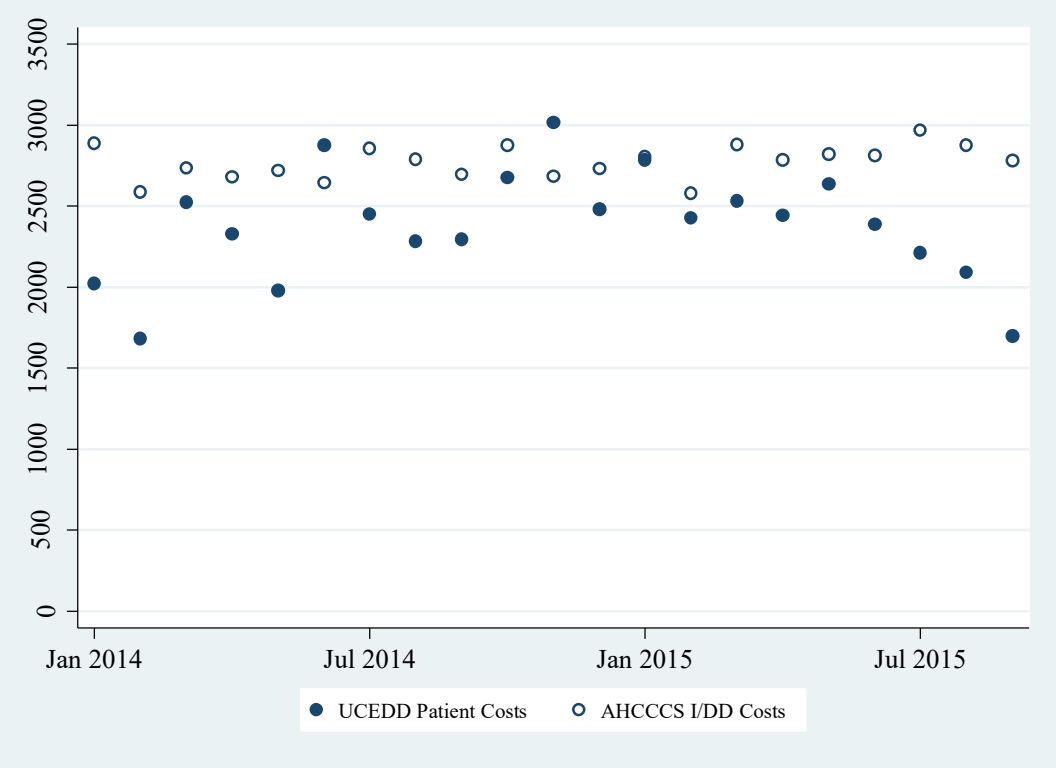
Source: Arizona Health Care Costs Containment System and Arizona State University Center for Health Informatics Research. Calculations by the University of Arizona Center for Population Science & Discovery.

- **Evaluation and management (E/M) visits are non-procedural professional encounters such as well patient visits, visits for acute care, visits for chronic disease managements, or specialty outpatient consultation**
- **Other professional encounters (non-E/M) include professional services rendered at the emergency department; at outpatient procedures such as Xrays, other diagnostic procedures, and surgical procedures; and habilitation visits,**
- **Screening encounters included mammograms, PAP smears, colonoscopies, lipid screening**

Cost outcomes

- **The amount billed to Medicaid was $473 less per month per member for the program patients.**
- **This increased to a difference of $520 with multivariate regression controlling for age, gender, race/ethnicity, chronic health conditions, and specific I/DD conditions**
- **The next slide shows that this effect increased over time, suggesting that it was an effect of the program.**

The effect with cost increased with time



- **A model integrated model primary care program for adults with intellectual/developmental disabilities, embedded in a university family medicine teaching clinic, was associated with increased access to preventive/acute care services and reduced costs.**
- **The program was not associated with more screening examinations or with fewer hospital days.**

- **This is a younger adult group (mean ages 37 and 39.5 years) and we only looked at the first 21 months of the project**
- **It is possible that impact on screening would be captured by a longer follow-up period, as the interval for screening tests can range from yearly to every ten years and the age to begin screening varies by test**
- **It is possible that impact on hospital days would also be captured by a longer follow-up period, when more preventable morbidity would be expected to appear.**

- **Essential elements of this model could be implemented in a variety of primary care settings, including community health centers.**
- **Preliminary conversations with local FQHC's suggest that initial strategies would include identification of patients with intellectual/developmental disabilities, identification of a physician champion, and assessment of clinic physical accessibility, staff and provider educational needs, case management system needs and capabilities, and health record strengths and limitations.**

- **The program's impact on payer costs presents an opportunity for discussion of shared saving models between private/public payers and accountable care organizations/community health organizations.**