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# Person-centered Outcomes in Culturally and Diverse Contexts: International Application of the ICF

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# Person-centered Outcomes in Culturally and Diverse Contexts: International Application of the ICF

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## **Creator(s)**

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**Karla Washington**

**Jane McCormack**

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**Brenda Louw**

**Nancy Thomas-Stonell**

**Tammy Hopper**



# Disclosure Statement

- Financial Disclosures:
  - The presenters are employed by different universities or research institutes
  - Each presenter received complimentary ASHA registration
- Non-Financial Disclosures: Presenters have no relevant non-financial disclosures

# Overview



## International Application of the ICF

1. Application of ICF – **Overview**
2. Considerations for children within the **Australian** context  
– Jane McCormack
3. Considerations for **Brazil** and the **United States**  
– Lynn Williams and Brenda Louw
4. Considerations for **Jamaican-Creole** speaking preschoolers  
– Karla Washington
5. Considerations for **Canadian** preschoolers  
– Nancy Thomas-Stonell
6. Considerations for Dementia within the **Canadian** context  
– Tammy Hopper

# 1. Application of the ICF in speech- language pathology: An introduction and overview

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**Karla Washington**, Ph.D., CCC-SLP, S-LP(C)

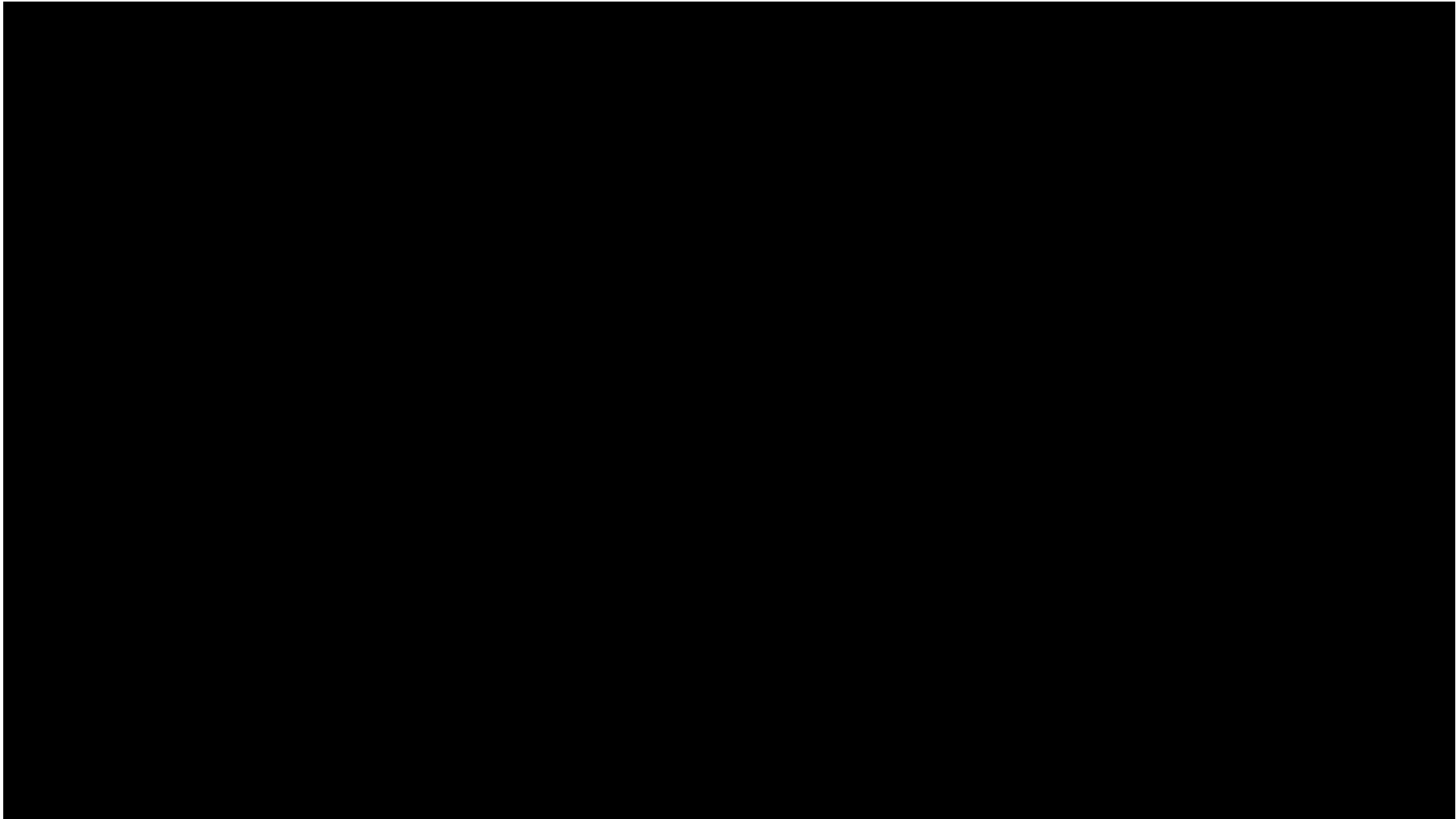
University of Cincinnati

Cincinnati, Ohio, USA

# Background

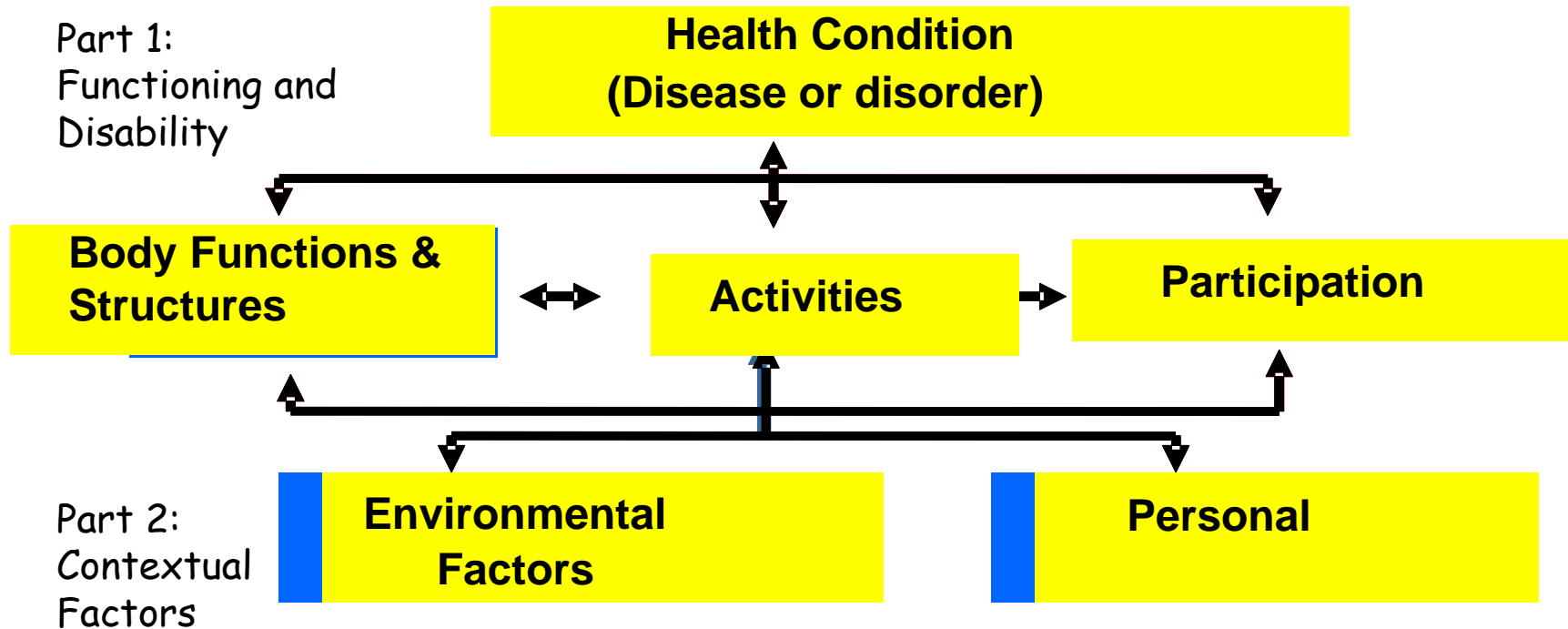
*“health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”*

*(WHO, 1946)*





# ICF-CY



WHO (2007)

# Each presenter will describe

- **Context and population**
  - countries/languages/population/age-group
- **Rationale for using the ICF**
  - why use it/benefits/theoretical strengths
- **Application of the ICF**
  - How it has been applied/ Research and practice
- **Resources**
  - for SLPs to support application (e.g., access to tools/publications/guides/websites)

## 2. Research and clinical application of the ICF in pediatric speech-language pathology contexts in Australia

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**Jane McCormack**, Ph.D., CPSLP

University of Sheffield, UK

Charles Sturt University, Australia



# Disclosure Statement

- The presenter acknowledges that she is an author of one of the clinical tools outlined in this presentation
- There are no financial disclosures

# Context and population: Australia

- 23,896,623 (population)
- National language is English; 23.2% speak a language other than English at home
  - Mandarin (1.6%), Italian (1.4%), Arabic (1.3%), Greek (1.2%), and Cantonese (1.2%)
- Aboriginal and Torres Strait Islander people comprise approx. 3% of the Australian population; approx. 12% of Indigenous people speak an Indigenous language at home
- Children aged 0-4 years comprise approx. 6% of the population
  - Approx. 25% of parents have concerns about how their 4-5 year old children “*talk and make speech sounds*” (McLeod & Harrison, 2009)

# Rationale

- *“The International Classification of Functioning, Disability and Health (ICF) (WHO, 2001), provides a **conceptual framework** for speech pathologists within which **individual functioning and health are paramount**...Applying the ICF to the clinical practice of speech pathology, practitioners can incorporate both the **diagnosis** of impairment (body function and structure) and the activity and participation of the individual to assess the **impact** of the communication and/or swallowing disorder on **quality of life**.*
- *...including the contextual factors (environmental and personal) and activity and participation levels, allows speech pathologists to **collaboratively set goals** with an individual and their caregivers.*
- ***It is expected that an entry-level speech pathologist in Australia will be familiar with the ICF framework and competently apply** the social health principles of individual functioning and well-being **to their speech pathology practice”***  
(Speech Pathology Australia, 2011, p.6).

# Clinical applications of the ICF

| Individual Level  | Institutional Level   | Social Level  |
|---|---|---|
| <ul style="list-style-type: none"> <li>• <b>Assessment</b><br/>(e.g., Intelligibility in Context Scale)</li> <li>• <b>Intervention planning</b><br/>(e.g., Communication Support Inventory – Children and Youth)</li> <li>• <b>Progress monitoring</b><br/>(e.g., Focus on Outcomes of Children Under Six; AusTOMs)</li> <li>• Self evaluation</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Education and training</b><br/>(e.g., embedding of the Professional Framework and Range of Practice Principles into SLP training programs).</li> <li>• Resource planning and development</li> <li>• Quality improvement</li> <li>• Outcome evaluation</li> <li>• Service delivery planning</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Eligibility criteria</b><br/>(e.g., National Disability Insurance Scheme)</li> <li>• Social policy development</li> <li>• Needs assessments</li> <li>• Environmental assessments</li> </ul> |

# Research applications of the ICF

|                                 | Project 1 (McCormack et al., 2009)   | Project 2 (McCormack et al., 2011)   |
|---------------------------------|--|--|
| Aims                            | To systematically review research that identified an association between speech impairment and Activity Limitations and/or Participation Restrictions, in order to better understand the social dimensions of childhood speech impairment. | To investigate the association between communication (speech and language) impairment in early childhood and Activities and Participation at school-age using parent-, teacher- and child-report, and direct assessment.   |
| Research Design                 | Systematic (narrative) Review  | Longitudinal Study   |
| Data                            | 57 papers  | 4,329 children (7-9 years)   |
| Application of the ICF (ICF-CY) | ICF used to determine key words and synthesise results   | ICF used to identify 18 outcome measures across 5 domains  |
| Results                         | Activity Limitations / Participation restrictions across 6 ICF components (Learning and applying knowledge; Communication; Mobility; Self-care; Interpersonal interactions & relationships; Major life areas)                              | Children identified with communication impairment at 4-5 years performed significantly less well at 7-9 years on <b>all outcomes</b> (Learning and applying knowledge; General tasks and demands; Communication; Interpersonal interactions & relationships; Major life areas) |



# Resources

| Clinical Tool  | Author(s)   | Weblink   |
|--|---|---|
| Speech Participation and Activity Assessment - Children    | McLeod (2004)   | <a href="https://www.csu.edu.au/_data/assets/pdf_file/0005/227660/SPAAC2.pdf">https://www.csu.edu.au/_data/assets/pdf_file/0005/227660/SPAAC2.pdf</a> |
| Intelligibility in Context Scale                           | McLeod, Harrison & McCormack (2010)                   | <a href="https://cms.csu.edu.au/research/multilingual-speech/ics">https://cms.csu.edu.au/research/multilingual-speech/ics</a>                         |
| Focus on Outcomes on Communication Under Six (FOCUS)       | Thomas-Stonnell, Oddson, Robertson & Rosenbaum (2010) | <a href="http://research.hollandbloorview.ca/Outcomemeasures/FOCUS">http://research.hollandbloorview.ca/Outcomemeasures/FOCUS</a>                     |
| ICF-based documentation form                               | World Health Organization ICF Research Branch (2012)  | <a href="http://www.icf-core-sets.org/en/page1.php">http://www.icf-core-sets.org/en/page1.php</a>   |
| Communication Supports Inventory-Children & Youth (CSI-CY) | Rowland, Fried-Oken & Steiner (n.d.)                  | <a href="http://icfcy.org/aac">http://icfcy.org/aac</a>   |

# 3. Application of the ICF in Brazil and the United States

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**Lynn Williams, PhD, CCC-SLP**

**Brenda Louw, PhD**

East Tennessee State University



# Disclosure Statement

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- East Tennessee State University (lead US institution)
  - Brenda Louw (Project Co-Director)
  - Lynn Williams (Project Co-Director)
  - Nancy Scherer (Senior Project Staff)
- University of Northern Iowa
  - Ken Bleile (Project Co-Director)
- Universidade Federal de Santa Maria (lead Brazil institution)
  - Marcia Keske-Soares (Project Director)
  - Themis Kessler
- Universidade de São Paulo-Baurú
  - Inge Trindade

# Context and Population



- Brazil is the largest country in South America and the 5<sup>th</sup> most populated country in the world
- Portuguese is the national language of Brazil
- Brazil has the 2<sup>nd</sup> largest population of SLPs
  - Brazilian Society of Speech-Language Pathology and Audiology (<http://www.sbfa.org.br/portal>)

# Portuguese Speakers in the U.S.

(Shin & Kominski, 2010)



- 687,126 Portuguese speakers in the U.S.
- #5 most common Indo-European language spoken in the U.S.
  - Portuguese speakers represent 1.2 percent of speakers of non-English language in the U.S.
- Brazilian Portuguese (BP) differs from the Portuguese spoken in Europe (EP) in terms of pronunciation, spelling and vocabulary

# Brazilian Context Relative to the ICF

(Fernanda Dreux M. Fernandes & Mara Behlau, 2013)

- Movement in the Brazilian government towards improved access and quality of services to persons with disabilities
  - Professional and scientific associations participated in implementation of these changes
  - Complexity of identification of under-served populations and specific barriers to access to services and resources for a nation of 200 million people living in a vast country
- Brazilian SLP/A associations aim to increase the use of ICF with a larger number of students and professionals
  - Important outcome for SLP/A is to guarantee adequate communication between PWCD and health/education service providers to ensure the best quality of care

# Rationale for Using the ICF



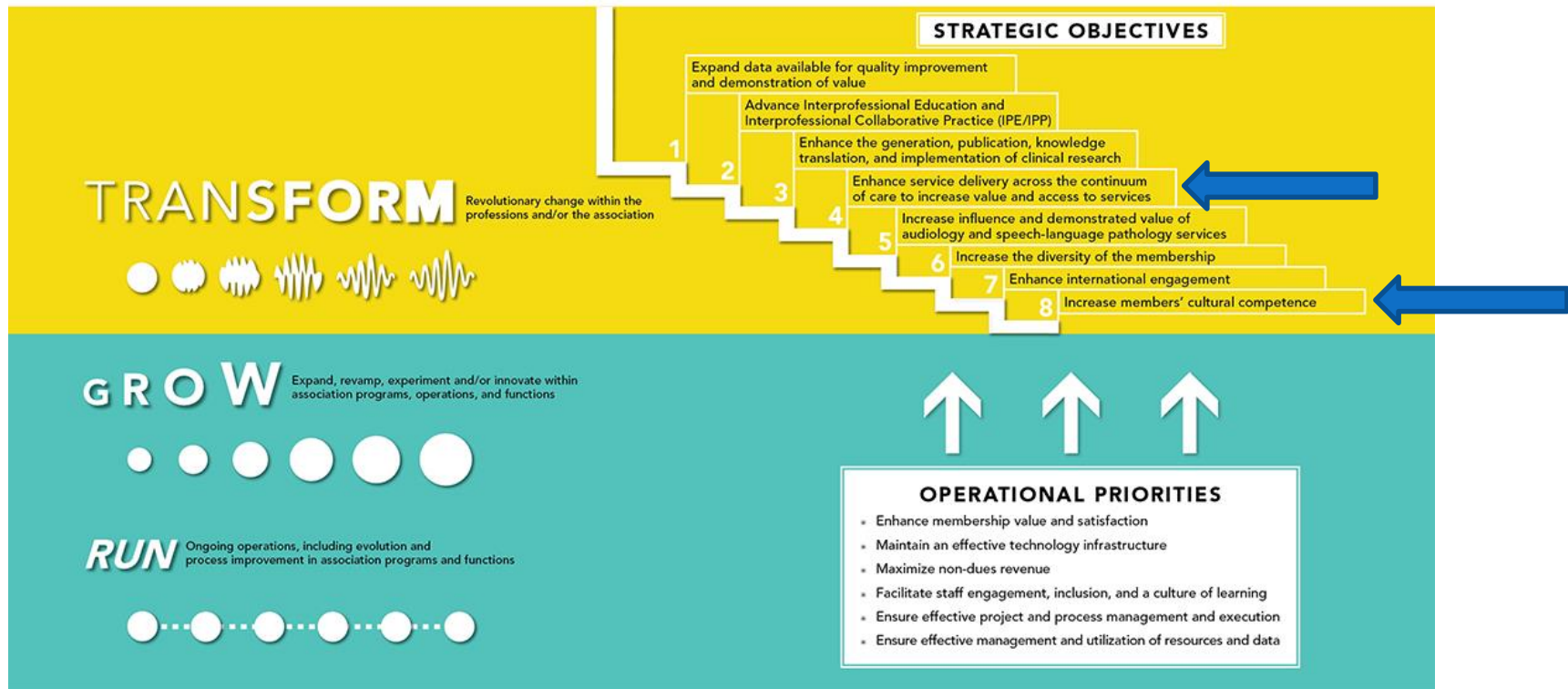
## STRATEGIC PATHWAY TO EXCELLENCE

### VISION

Making effective communication, a human right, accessible and achievable for all.

### MISSION

Empowering and supporting audiologists, speech-language pathologists, and speech, language, and hearing scientists through advancing science, setting standards, fostering excellence in professional practice, and advocating for members and those they serve.



**VALUES:** EXCELLENCE • INTEGRITY • DIVERSITY • COMMITMENT • RESEARCH-BASED • MEMBER-CENTRIC • RESPONSIVE



# ASHA's Strategic Pathway: Transforming Clinical Practice

**SO4: Enhance Service Delivery across the Continuum of Care to Increase Value and Access to Services**

Transforming clinical practice so that clinicians make effective clinical decisions that enhance patient's outcomes using ICF

**SO8: Increase Members' Cultural Competence**

Enhanced ability to help clients/students/patients achieve their desired clinical outcomes

# Cross-Linguistic Consortium (FIPSE)

## Goals Linked to Strategic Pathway

**SO4**

**Increase Value  
and Access to  
Services**

- Promote a general understanding of the relatedness of the professions in Brazil and the US within a global context.
- Apply ICF framework in assessment and intervention with children who have a communication disorder.

**SO8**

**Enhanced clients  
achieve their  
desired clinical  
outcomes**

- Promote language and cultural skills
- Promote cultural and research competence in SLP/A students



# FIPSE Research-Based Curriculum: 3 Primary Objectives

## Objective 1

To investigate the association between communication disorders in children and limitations to life activities within the theoretical framework of the ICF-CY.

- Families
- Social
- Educational
- Cultural differences

## Objective 2

To understand the social and cultural aspects of assessment and intervention for children with communication disorders across different etiologies (e.g., cleft lip/palate, SSD, HI)

- Models of intervention
- Barriers to access or implementation

## Objective 3

To explore and identify resilience and risk factors in the different social and cultural contexts across different subgroups of communication disorders from a strength-based approach.



# FIPSE Research Teams

## Cleft Lip/Palate Team 1

- ICF-CY in CLP (Objective 1 and 2)

## Cleft Lip/Palate Team 2

- Nasometry in US and Brazil (Objective 2)

## Speech Sound Disorders Team

- Prevalence of SSD in English-speaking countries and Brazil (Objective 1 and 3)

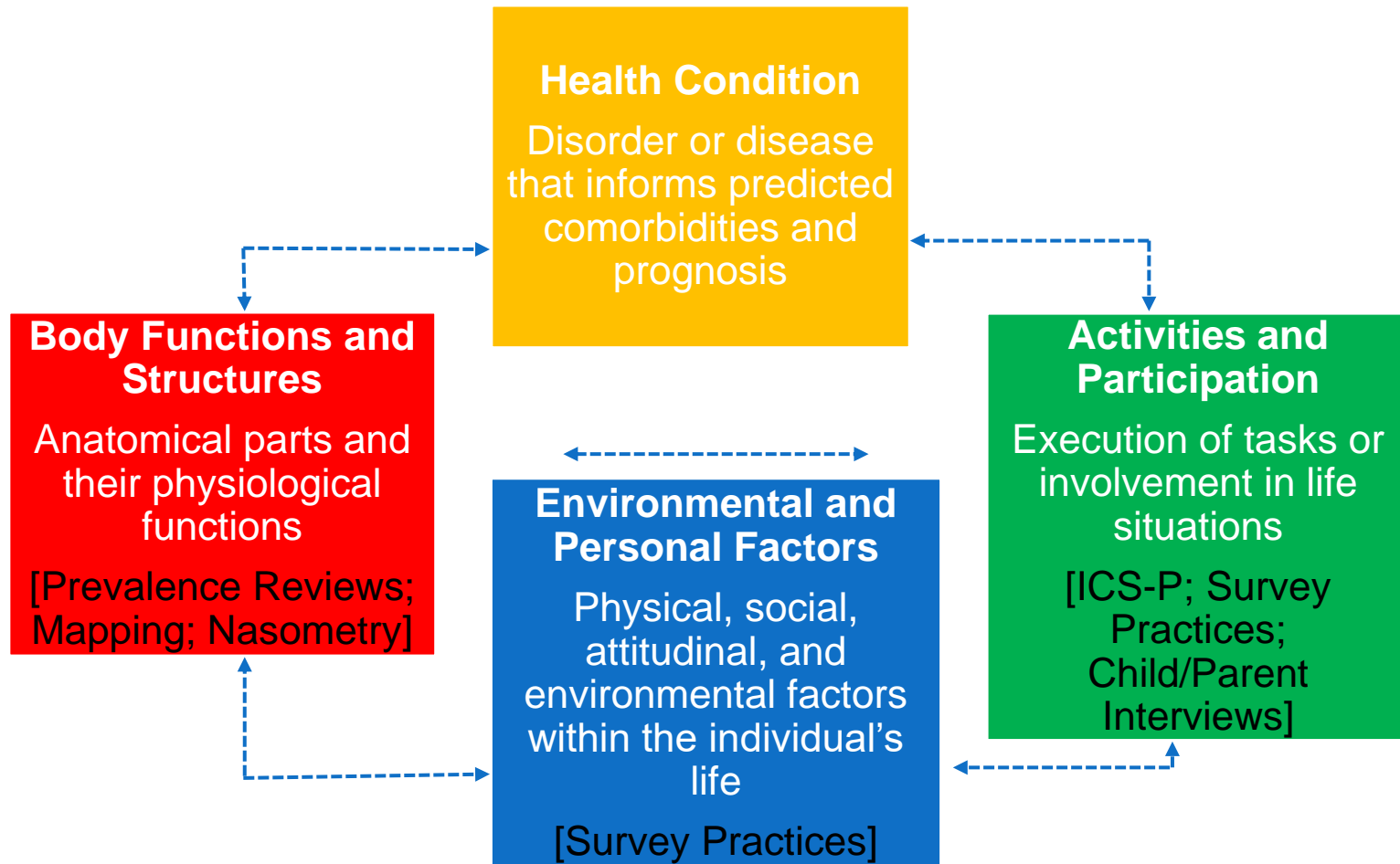
## Hearing Impairment Team

- Prevalence of HI in English-speaking countries and Brazil (Objective 1 and 3)

# FIPSE Research Application of the ICF

| Focus                | Design                   | Description   | ICF-CY   | Language             |
|----------------------|--------------------------|---|--|----------------------|
| Children             | Descriptive Synthesis    | a. Prevalence of SSD in US/Brazil<br>b. Prevalence of HI in children in US/Brazil | Functioning & Disability                           | English / Portuguese |
| SLPs                 | a. Descriptive Synthesis | a. Mapped assessment measures   | Functioning & Disability                           | English              |
|                      | b. Translation           | b. ICS-Portuguese   | Contextual Factors                                 | Portuguese           |
|                      | c. Survey                | c. Questionnaires to PD, Instructors  |  | English/Portuguese   |
| SLPs                 | Survey                   | Theoretical framework of ICF-CY to examine assessment practices for SSD           | Functioning & Disability<br><br>Contextual Factors | English/Portuguese   |
| Children and Parents | Mixed Methods            | Child and parent reports regarding SSD and limitations to life activities         | Activities & Participation                         | English/Portuguese   |
| Children             | Descriptive Quantitative | Nasometry studies of typical and atypical speakers                                | Functioning & Disability                           | English/Portuguese   |

# Mapping FIPSE Research to ICF



# Continuum of FIPSE Research Relative to ASHA's Change Model

## Run

Narrative reviews  
Mapping  
Surveys

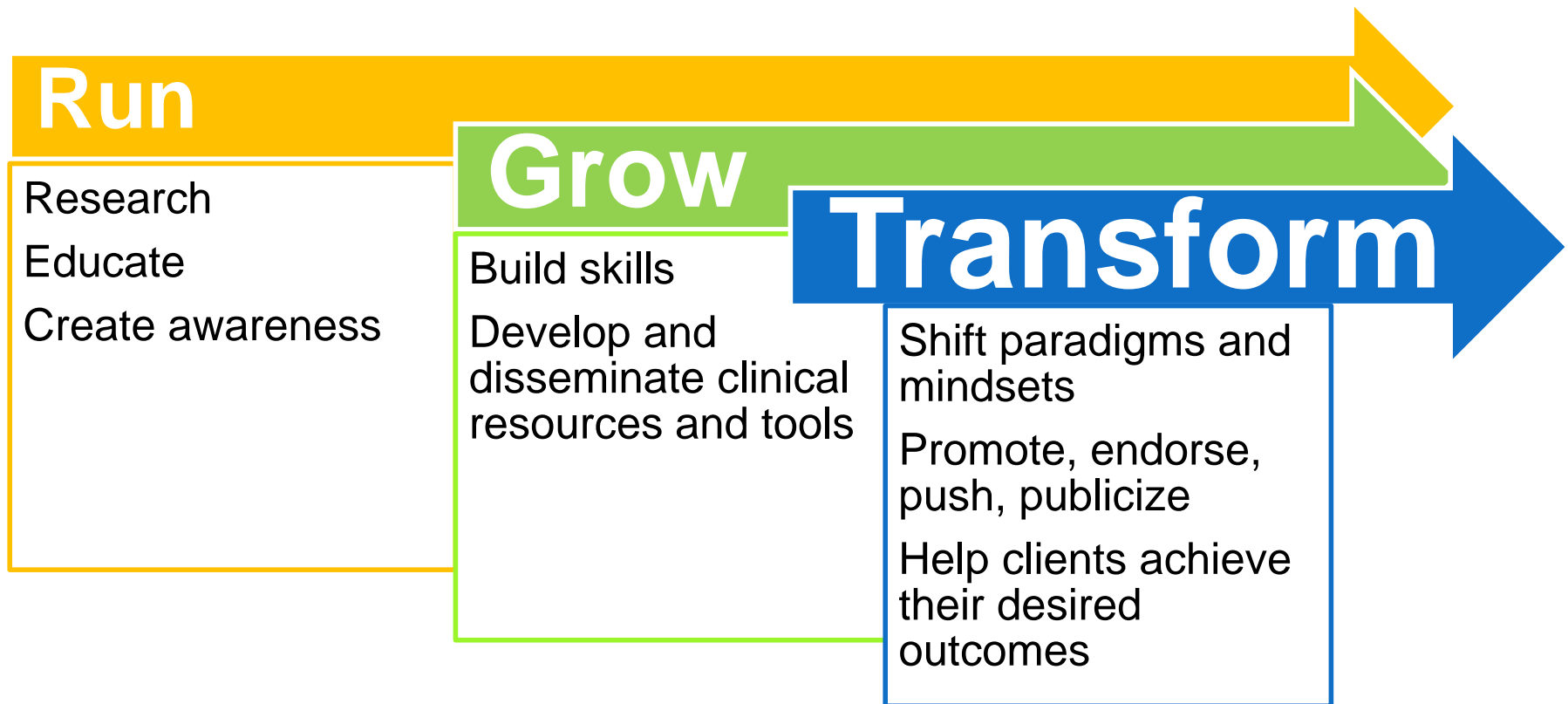
## Grow

ICS-Portuguese  
Child/Parent  
Interviews

## Transform

Publish in U.S. and  
Brazil  
Continuing education in  
both countries  
Surveys of PDs,  
Instructors, and SLPs

# Aligning ICF with ASHA's Change Model





# Resources

**RUN**



## Selected Books and Articles

- Roulstone, S., & McLeod, S. (Eds.). (2012). *Listening to children and young people with speech, language, and communication needs*. London: J&R Press.
- Majnemer, A. (Ed.) (2012). *Measures for children with developmental disabilities: An ICF-CY approach*. London: MacKeith Press.

## ASHA Resources

- ASHA Board of Ethics. (2013). *Cultural and linguistic competence* [Issues in ethics].
- ASHA *Scope of practice in speech-language pathology* [Scope of practice].

**GROW**



## Clinical Tools

- ICS-Portuguese
- QUACC (Quan-Qual Assessment of Impact of Environmental Factors on Everyday Life and Communication in Children; Neumann & Zelinski, in preparation)
- Parental Appraisal of Cleft Questionnaire (Shuttlewood, Dalton, & Cooper, 2013)
- ASHA Resources (case studies of ICF life-participation goals: [www.asha.org/slp/icf](http://www.asha.org/slp/icf))
- Intercultural Development Inventory (IDI; Hammer, Bennett, & Wiseman, 2003)

**TRANSFORM**



ASHA Strategic Pathway 2025: <http://www.asha.org/uploadedFiles/ASHA-Strategic-Pathway-to-Excellence.pdf>

Howard, S., & Lohmender, A. (Eds.). (2011). *Cleft palate speech: Assessment and intervention*. West Sussex, UK: John Wiley & Sons, Ltd.

## 4. Using the ICF to support person-centered practices with Jamaican-Creole speaking preschoolers and their families

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**Karla Washington**, Ph.D., CCC-SLP, University of Cincinnati

**Sharynne McLeod**, Ph.D., SLP, Charles Sturt University

**Hubert Devonish**, Ph.D., University of the West Indies

**Maureen Samms-Vaughan**, MD, PhD University of the West Indies



# Disclosure Statement

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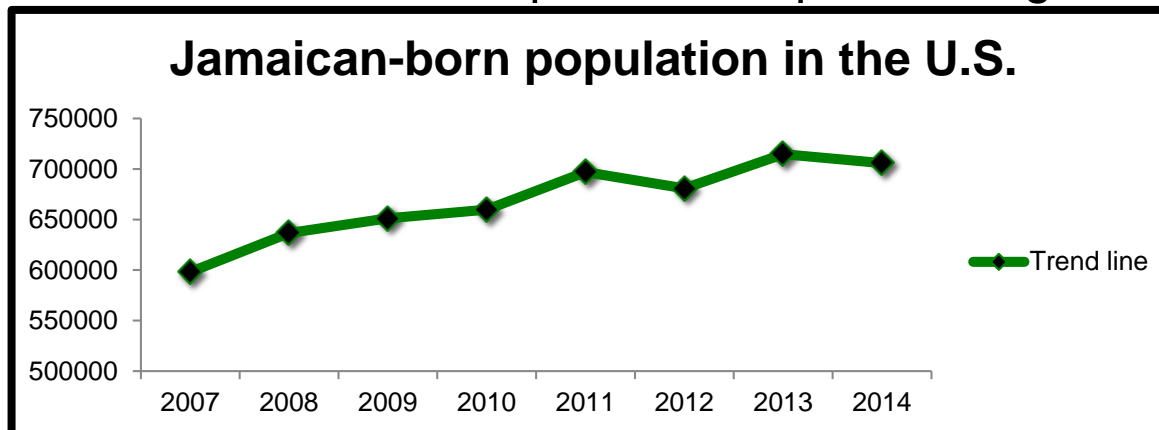
# Context and population

- **Jamaica**, one of two English speaking islands in the Greater Antilles in the Caribbean
- Population of about **2.8 million people**
- Part of the British Commonwealth of Nations
- Granted Independence in 1962
- **English** and **Jamaican Creole** are spoken
  - English is the language of the classroom
- Less than 10 licensed SLPs – registered with the *Council for Professions Supplementary to Medicine*
- Services within a medical model
- **SLP**: Currently no SLP programs, but slated to begin in Fall 2015
  - Joint program between Humanities and Medicine
- Jamaican Speech-Language Pathology Association



# Context and population

- **Jamaicans**, who are greater than 90% African or Afro-European decent, **comprise 18.8% of the Caribbean-born population in the US**, exceeded only by Cuba (28.6%) and the Dominican Republic (22.9%)
- Between **2007 (597,940)** and **2014 (705,804)** there has been a steady increase in the number of Jamaican-born Americans in the U.S. (see figure)
- The number of Jamaican-Americans as has also increased from **904,501 in 2007** to **1,091,482 in 2013**
- Little attention on Jamaicans in the cultural and diverse speech-language literature in contrast to the emphasis on Spanish-English Speakers



Statistical Institute of Jamaica. (2001). Jamaican Population Census 2001. National Census Report.

U.S. Census Bureau (2007-2014). American Community Survey (ACS), Table B05006 "Place of Birth for the Foreign-Born Population.

U.S. Census Bureau (2009). 2009 American Community Survey. [Available online](http://www.migrationinformation.org/usfocus/display.cfm?ID=834#3). <http://www.migrationinformation.org/usfocus/display.cfm?ID=834#3>

U.S. Census Bureau (2013). 2013 American Community Survey. [Available online](http://www.migrationinformation.org/usfocus/display.cfm?ID=834#3). <http://www.migrationinformation.org/usfocus/display.cfm?ID=834#3>

# Rationale

- In speech-language pathology we have access to a wide variety of developmental procedures and assessments that support our diagnostic roles for determining whether or not a child qualifies for services
- Conceptualize child development as well as our approaches to services within a broader perspective supportive of culturally competent practice
- ICF-CY provides an internationally recognized bio-psycho-social model for conceptualizing normal functioning and disability in birth- to 18-year range

Westby, C., Stevens Dominguez, & Otter, P. (1996). A performance/competence model of observational assessment. *Language, Speech, and Hearing Services in Schools, 27*, 144-156.

McCormack, J., Jacobs, D., & Washington, K. (2012). Specific mental functions-Language (b167). In A. Majnemer (Ed.). *Measures for children with developmental disabilities: Framed by the ICF-CY* (pp. 129-153). London: Mac Keith Press.

McCormack, J., McLeod, S., McAllister, L., & Harrison, L. J. (2010). My speech problem, your listening problem, and my frustration: The experience of living with childhood speech impairment. *Language, Speech, and Hearing Services in Schools, 41*, 379-392.

# Rationale

- The ICF-CY can support a comprehensive approach that includes consideration of **multiple domains** and **respondents** that enhances the usefulness of our assessments for Jamaican children and their families
- The nature of true disorder is yet to be characterized in Jamaican children
- Approach to **assessment** must be **comprehensive** if it is to be **informative**

| Domains (area)                    | Domain (Respondents)      |
|-----------------------------------|---------------------------|
| <i>Functioning and Disability</i> | <i>Contextual Factors</i> |
| 1. Speech and language            | 1. Parents                |
| 2. Cognition                      | 2. Teachers               |
| 3. Socialization                  | 3. SLP                    |
| 4. Hearing                        | 4. Child                  |
| 5. Oral Motor                     |                           |

Westby, C., Stevens Dominguez, & Otter, P. (1996). A performance/competence model of observational assessment. *Language, Speech, and Hearing Services in Schools, 27*, 144-156.

McCormack, J., Jacobs, D., & Washington, K. (2012). Specific mental functions-Language (b167). In A. Majnemer (Ed.). *Measures for children with developmental disabilities: Framed by the ICF-CY* (pp. 129-153). London: Mac Keith Press.

McLeod, M., Harrison, L., McAllister, L., & McCormack, J. (2013). Speech sound disorders in a community of preschool children. *American Journal of Speech-Language Pathology, 22*, 503-522.

| Target Area   | Measure   | Description   | Jamaican<br>(use blue<br>pen) | Jamaican<br>English<br>(use red<br>pen) |
|---|---|---|-------------------------------|---|
| 1. Parent   | consent x2  |   |                               |   |
| 2. Parent   | questionnaire - ICSS  |   |                               |   |
| 3. Parent   | questionnaire   |   |                               |   |
| 4. FOCUS  | Parent version  |   |                               |   |
| 5. FOCUS  | Clinician version   |   |                               |   |
| 6. Teacher  | Teacher questionnaire   |   |                               |   |
| 7. Verbal assent  | Ask child OK to research,<br>audio, video   | Child assent  |                               |   |
| <b>Category 1</b>                                       |   |   |                               |   |
| 8. Hearing  | Audiometric Screen  | Screen hearing skills   |                               | 3                                       |
| 9. Nonverbal IQ   | Primary Test of Nonverbal<br>Intelligence (PTONI)   | Formal evaluation of nonverbal<br>thinking skills                                     |                               | 7                                       |
| 10. Oral Motor<br>Skills                                | DEAP – Oral Motor<br>Assessment subtest   | Tool used to evaluate oral<br>motor skills  |                               | 3                                       |
| 11. Receptive<br>Language                               | Peabody Picture<br>Vocabulary Test (PPVT)   | Evaluates word-level receptive<br>language  |                               | 10                                      |
| 12. Receptive<br>Language                               | CELF: Sentence structure<br>(SS) subtest (yellow)   | Evaluates sentence-level<br>receptive language  |                               | 5                                       |
| 13. Emergent<br>Literacy                                | Preschool Word and Print<br>Awareness (PWPA)  | Informal evaluation of print<br>concept development during a<br>book-reading activity |                               | 5                                       |
| 14. Children's<br>Feelings                              | Speech Participation and<br>Activity Assessment in<br>Children (SPAA-C)                             | Picture-based rating scale<br>about speech skills                                     |                               | 2                                       |
| 15. Drawings  | Sound Effects Study<br>Protocol   | Protocol for the collection of<br>children's drawings                                 |                               | 5                                       |
| <b>Category 2 (Standard Jamaican English)<br/>First</b> |   |   |                               |   |
| 16. Expressive<br>Language                              | Spontaneous language<br>sample  | (morphemes, mean length of<br>utterance, syntax)                                      |                               | 10                                      |
| 17. Speech Skills                                       | Diagnostic Evaluation of<br>Articulation Phonology<br>(DEAP) Articulation and<br>Phonology subtests | Formal measure of articulation<br>and phonology skills                                |                               | 14                                      |
| 18. Expressive<br>Language                              | Clinical Evaluation of<br>Language Fundamentals<br>(CELF) Word Structure<br>(WS) (Purple)           | Formal measure of expressive<br>morphology and syntax                                 |                               | 10                                      |
| 19. Expressive<br>Language                              | CELF Expressive<br>Vocabulary (EV) (Blue)   | Formal measure of expressive<br>vocabulary  |                               | 5                                       |
| <b>Category 2 (Jamaican Creole)<br/>Second</b>          |   |   |                               |   |
| 20. Expressive<br>Language                              | Spontaneous language<br>sample  | (morphemes, mean length of<br>utterance, syntax)                                      | 10                            |   |
| 21. Speech Skills                                       | DEAP Articulation and<br>Phonology subtests   | Articulation and phonology<br>skills  | 14                            |   |
| 22. Expressive<br>Language                              | CELF Word Structure<br>(WS) (Purple)  | Expressive morphology and<br>syntax   | 10                            |   |
| 23. Expressive<br>Language                              | CELF Expressive<br>Vocabulary (EV) (Blue)   | Formal measure of expressive<br>vocabulary  | 5                             |   |



*Multilingual and Multicultural  
Experiences in Communication  
Sciences and Disorders –  
Education Abroad Program  
Jamaica*



# Application of the ICF (Research)

| Respondent | Material          | Description   | ICF-CY  | Language                       |
|------------|-------------------|---|---|--------------------------------|
| Parent     | Questionnaire     | Demographic information,<br>Language use at home<br>Speech intelligibility,<br>Strengths and<br>Weaknesses,<br>Home reading<br>Functional Communication | Functioning and<br>Disability<br><br>Contextual Factors | English and Jamaican<br>Creole |
| Teacher    | Questionnaire     | Speech, language,<br>behaviour  | Functioning and<br>Disability                           | English                        |
| Clinician  | Questionnaire     | Functional<br>Communication,<br>Literacy  | Functioning and<br>Disability<br><br>Contextual Factors | English                        |
| Child      | Direct Assessment | Oral motor, cognition,<br>hearing, speech, language,<br><br>Feelings about talking  | Functioning and<br>Disability<br><br>Contextual Factors | English<br>Jamaican Creole     |

# Parents

## 1. Speech and Language

- **On a scale of 0-5 how concerned are you about your child's talking**

|                             |                |
|-----------------------------|----------------|
| 1. 0 Not concerned          | Research use 0 |
| 2. 1 Sometimes concerned    | 1              |
| 3. 2 Often quite concerned  | 2              |
| 4. 3 Always quite concerned | 3              |
| 5. 4 Often very concerned   | 4              |
| 6. 5 Always very concerned  | 5              |

- **If you said you were concerned please indicated the area(s) in which your child has difficulty (tick as many as appropriate)**

|  | No                       | Yes                      |
|--|--------------------------|--------------------------|
| a) Reluctant to speak                        | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Speech not clear to family                | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Speech not clear to others                | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Difficulty finding words                  | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Difficulty putting words together         | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Doesn't understand you when you speak     | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Doesn't understand others when they speak | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Voice sounds unusual                      | <input type="checkbox"/> | <input type="checkbox"/> |
| i) Stutters, stammers                        | <input type="checkbox"/> | <input type="checkbox"/> |
| j) Lisps                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| k) Persistent hearing loss                   | <input type="checkbox"/> | <input type="checkbox"/> |
| l) Cleft lip and/or palate                   | <input type="checkbox"/> | <input type="checkbox"/> |
| m) Developmental delay                       | <input type="checkbox"/> | <input type="checkbox"/> |
| n) Other                                     | <input type="checkbox"/> | <input type="checkbox"/> |
| o) Don't know                                | <input type="checkbox"/> | <input type="checkbox"/> |

# Parents

## 2. Background information about languages spoken in your home

### QUESTIONS ABOUT YOUR CHILD

14. a) How long has your child lived in Jamaica? whole life / \_\_\_\_\_

b) Has your child lived in another place? yes / no \_\_\_\_\_

c) If yes, where did he/she used to live and for how long? \_\_\_\_\_

15. What language(s) does your child speak and how well?

|                                  | My child can speak this language |               |               |
|----------------------------------|----------------------------------|---------------|---------------|
|                                  | Very well                        | Somewhat well | Not very well |
| a. Jamaican /Patois/Patwa/Creole | 1.                               | 2.            | 3.            |
| b. English                       | 4.                               | 5.            | 6.            |
| c.                               | 7.                               | 8.            | 9.            |
| d.                               | 10.                              | 11.           | 12.           |
| e.                               | 13.                              | 14.           | 15.           |

16. a) What language(s) does your child speak most often at home? \_\_\_\_\_

b) What language(s) does your child hear most often at home? \_\_\_\_\_

17. a) What language(s) does your child speak most often at pre/school? \_\_\_\_\_

b) What language(s) does your child hear most often at pre/school? \_\_\_\_\_

18. What percentage of the week would your child speak and hear these languages?

|  | % of week your child speaks | % of week your child hears others |
|--|-----------------------------|-----------------------------------|
| <input type="checkbox"/> Jamaican /Patois/Patwa/Creole | %                           | %                                 |
| <input type="checkbox"/> English                       | %                           | %                                 |
| <input type="checkbox"/>                               | %                           | %                                 |
| <input type="checkbox"/>                               | %                           | %                                 |
| <input type="checkbox"/>                               | =100%                       | =100%                             |

# Parents

## The FOCUS: Parent Form

### Focus on the Outcomes of Communication Under Six



Thomas-Stonell, N., Oddson, B., Robertson, B., Walker, J. & Rosenbaum, P. © 2012

Name of Child \_\_\_\_\_

Date Completed      Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Date of Birth      Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Chronological Age      Year \_\_\_\_\_ Month \_\_\_\_\_

Name of Person Completing Form \_\_\_\_\_

FOCUS Completion # \_\_\_\_\_

Name of Speech-Language Pathologist \_\_\_\_\_

FOCUS  
TOTAL  
SCORE

### Administration Instructions

The FOCUS is an outcome measure that takes a 'snapshot' of your child's skills as they are today. Some items may not apply to your child right now. If so, please select "Not at all like my child". Your child may begin to learn some of these skills during therapy and choosing this option will let us measure all of the changes that your child is making. Please be sure to answer every question. Thank-you.

### Definitions:

"Talking", "tell", "speaks", "speech" and "words" refer to verbal speech. (e.g. "My child talks a lot.")

"Communicating", "conversations", "participates" and "asking" can be any form of communication (pecs, AAC, sign). (e.g. "My child will ask for help.")

**FOCUS Scoring Profile****ICF-CY Body Function/Capacity Items****Speech**

Pt. 1: Question 10 \_\_\_\_

Pt. 1: Question 14 \_\_\_\_

Pt. 1: Question 16 \_\_\_\_

**Expressive Language**

Pt. 1: Question 11 \_\_\_\_

Pt. 1: Question 17 \_\_\_\_

Pt. 1: Question 20 \_\_\_\_

Pt. 1: Question 21 \_\_\_\_

Pt. 1: Question 22 \_\_\_\_

Pt. 1: Question 28 \_\_\_\_

**Pragmatics**

Pt. 1: Question 05 \_\_\_\_

Pt. 1: Question 19 \_\_\_\_

Pt. 1: Question 23 \_\_\_\_

Pt. 2: Question 06 \_\_\_\_

Pt. 2: Question 10 \_\_\_\_

**Receptive Language / Attention**

Pt. 1: Question 18 \_\_\_\_

Pt. 1: Question 34 \_\_\_\_

Pt. 2: Question 02 \_\_\_\_

Pt. 2: Question 09 \_\_\_\_

Total Score \_\_\_\_ ÷ 3

Total Score \_\_\_\_ ÷ 6

Total Score \_\_\_\_ ÷ 5

Total Score \_\_\_\_ ÷ 4

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

**ICF-CY Performance Items****Intelligibility**

Pt. 1: Question 15 \_\_\_\_

Pt. 1: Question 26 \_\_\_\_

Pt. 1: Question 29 \_\_\_\_

Pt. 2: Question 14 \_\_\_\_

**Expressive Language**

Pt. 1: Question 27 \_\_\_\_

Pt. 1: Question 33 \_\_\_\_

Pt. 2: Question 08 \_\_\_\_

Pt. 2: Question 15 \_\_\_\_

**Social / Play**

Pt. 1: Question 1 \_\_\_\_

Pt. 1: Question 2 \_\_\_\_

Pt. 1: Question 6 \_\_\_\_

Pt. 2: Question 1 \_\_\_\_

Pt. 2: Question 3 \_\_\_\_

Pt. 2: Question 4 \_\_\_\_

Pt. 2: Question 5 \_\_\_\_

Pt. 2: Question 7 \_\_\_\_

Pt. 2: Question 11 \_\_\_\_

Pt. 2: Question 12 \_\_\_\_

Pt. 2: Question 13 \_\_\_\_

Pt. 2: Question 16 \_\_\_\_

**Independence**

Pt. 1: Question 9 \_\_\_\_

Pt. 1: Question 13 \_\_\_\_

Pt. 1: Question 24 \_\_\_\_

Pt. 1: Question 25 \_\_\_\_

Pt. 1: Question 31 \_\_\_\_

**Coping Strategies / Emotions**

Pt. 1: Question 3 \_\_\_\_

Pt. 1: Question 4 \_\_\_\_

Pt. 1: Question 7 \_\_\_\_

Pt. 1: Question 8 \_\_\_\_

Pt. 1: Question 12 \_\_\_\_

Pt. 1: Question 30 \_\_\_\_

Pt. 1: Question 32 \_\_\_\_

Total Score \_\_\_\_ ÷ 4

Total Score \_\_\_\_ ÷ 4

Total Score \_\_\_\_ ÷ 12

Total Score \_\_\_\_ ÷ 5

Total Score \_\_\_\_ ÷ 7

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

| Domain                               | Speech          | Expressive Language | Pragmatics    | Receptive Language / Attention |                              |
|--------------------------------------|-----------------|---------------------|---------------|--------------------------------|------------------------------|
| ICF-CY Body Function/Capacity Scores |                 |                     |               |                                |                              |
| Domain                               | Intelligibility | Expressive Language | Social / Play | Independence                   | Coping Strategies / Emotions |
| ICF-CY Performance Scores            |                 |                     |               |                                |                              |

SCORING

Holland Bloorview Kids Rehabilitation Hospital

FOCUS TOTAL SCORE

Thomas-Stonell, N., Oddson, B., Robertson, B. & Rosenbaum, P. (2010). Development of the FOCUS© (Focus on the Outcomes of Communication Under Six): A Communication Outcome Measure for Preschool Children. *Developmental Medicine and Child Neurology*, 52:47-53.

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# Teachers

| No. | Child's Initials | DOB | Gender (M or F) | 1. Have there been any concerns regarding ... <sup>a</sup> |  |   |   | 2. Please indicate any area of speech and language in which this child has difficulty (tick as many as appropriate) <sup>b</sup> |                               |                               |                             |                                      |  |  |                         |                         |          |                            | 3. Rate how this child has compared with other children of a similar age over the past few months... <sup>c</sup> |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
|-----|------------------|-----|-----------------|--|--|---|---|--|-------------------------------|-------------------------------|-----------------------------|--------------------------------------|--|--|-------------------------|-------------------------|----------|----------------------------|---|------------------------|----------------|---------------|---|--|---|---|--|--|---|--|--|--|--|--|
|     |                  |     |                 | a) This child's physical health?                           | b) This child's emotional well-being or happiness or his/her behavior? | c) This child's communication (e.g., talking and sound production)? | d) This child's ability to understand you when you speak? | a) Reluctant to speak  | b) Speech not clear to family | c) Speech not clear to others | d) Difficulty finding words | e) Difficulty putting words together | f) Doesn't understand you when you speak | g) Doesn't understand others when they speak | h) Voice sounds unusual | i) Stutters or stammers | j) Lisps | k) Persistent hearing loss | l) Cleft lip and palate   | m) Developmental Delay | n) Other _____ | o) Don't know | a) Social / emotional development <sup>t</sup> (e.g. adaptability, cooperation, responsibility, self-control) | b) Approach to learning (e.g. attention, observation, organisation, problem-solving) | c) Gross motor skills (e.g. running, catching and throwing balls, strength and balance) | d) Fine motor skills (e.g. manual dexterity, using writing and drawing tools) | e) Expressive language (e.g. using language effectively, ability to communicate ideas) | f) Receptive language (e.g. understanding, interpreting and listening) |   |  |  |  |  |  |
|     |                  |     |                 | <b>1. No</b><br><b>2. A Little</b><br><b>3. Yes</b>        |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  | <b>0. More competent than others</b><br><b>1. As competent as others</b><br><b>2. Less competent than others</b><br><b>3. Much less competent than others</b> |  |  |  |  |  |
| 1   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 2   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 3   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 4   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 5   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 6   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 7   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 8   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 9   |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |
| 10  |                  |     |                 |  |  |   |   |  |                               |                               |                             |                                      |  |  |                         |                         |          |                            |   |                        |                |               |   |  |   |   |  |  |   |  |  |  |  |  |

This study uses questionnaires (or part of) developed for *GROWING UP IN AUSTRALIA: THE LONGITUDINAL STUDY OF AUSTRALIAN CHILDREN* (LSAC). These questionnaires are the property of the Australian Government Department of Families, Community Services and Indigenous Affairs. LSAC is an initiative of the Australian Government Department of Families, Community Services and Indigenous Affairs ([www.facsia.gov.au](http://www.facsia.gov.au)), and is being undertaken in partnership with the Australian Institute of Family Studies ([www.aifs.gov.au](http://www.aifs.gov.au))

# Clinicians

## The FOCUS: Clinician Form

**Focus on the  
Outcomes of  
Communication  
Under  
Six**



Thomas-Stonell, N., Oddson, B., Robertson, B., Walker, J. & Rosenbaum, P. © 2012

Name of Child \_\_\_\_\_

Date Completed      Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Date of Birth      Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Chronological Age      Year \_\_\_\_\_ Month \_\_\_\_\_

Name of Person Completing Form \_\_\_\_\_

FOCUS Completion # \_\_\_\_\_

Name of Speech-Language Pathologist \_\_\_\_\_

FOCUS  
TOTAL  
SCORE

### Administration Instructions

The FOCUS is an outcome measure that takes a 'snapshot' of your client's skills as they are today. Some items may not apply to your client right now. If so, please select "Not at all like my client". Your client may begin to learn some of these skills during therapy and choosing this option will let us measure all of the changes that your client is making. Please be sure to answer every question. Thank-you.

### FOCUS Definitions:

When reading FOCUS items, the words "talking", "tell", "speaks", "speech" and "words" refer to verbal speech.

FOCUS items that refer to "communicating", "conversations", "participates" and "asking" apply to any form of communication (pecs, AAC, sign).

CLINICIAN

Holland Bloorview Kids Rehabilitation Hospital

Thomas-Stonell, N., Oddson, B., Robertson, B., Walker, J. & Rosenbaum, P. © 2012

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**FOCUS Scoring Profile****ICF-CY Body Function/Capacity Items****Speech**

Pt. 1: Question 10 \_\_\_\_

Pt. 1: Question 14 \_\_\_\_

Pt. 1: Question 16 \_\_\_\_

**Expressive Language**

Pt. 1: Question 11 \_\_\_\_

Pt. 1: Question 17 \_\_\_\_

Pt. 1: Question 20 \_\_\_\_

Pt. 1: Question 21 \_\_\_\_

Pt. 1: Question 22 \_\_\_\_

Pt. 1: Question 28 \_\_\_\_

**Pragmatics**

Pt. 1: Question 05 \_\_\_\_

Pt. 1: Question 19 \_\_\_\_

Pt. 1: Question 23 \_\_\_\_

Pt. 2: Question 06 \_\_\_\_

Pt. 2: Question 10 \_\_\_\_

**Receptive Language / Attention**

Pt. 1: Question 18 \_\_\_\_

Pt. 1: Question 34 \_\_\_\_

Pt. 2: Question 02 \_\_\_\_

Pt. 2: Question 09 \_\_\_\_

Total Score \_\_\_\_ ÷ 3

Total Score \_\_\_\_ ÷ 6

Total Score \_\_\_\_ ÷ 5

Total Score \_\_\_\_ ÷ 4

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

**ICF-CY Performance Items****Intelligibility**

Pt. 1: Question 15 \_\_\_\_

Pt. 1: Question 26 \_\_\_\_

Pt. 1: Question 29 \_\_\_\_

Pt. 2: Question 14 \_\_\_\_

**Expressive Language**

Pt. 1: Question 27 \_\_\_\_

Pt. 1: Question 33 \_\_\_\_

Pt. 2: Question 08 \_\_\_\_

Pt. 2: Question 15 \_\_\_\_

**Social / Play**

Pt. 1: Question 1 \_\_\_\_

Pt. 1: Question 2 \_\_\_\_

Pt. 1: Question 6 \_\_\_\_

Pt. 2: Question 1 \_\_\_\_

Pt. 2: Question 3 \_\_\_\_

Pt. 2: Question 4 \_\_\_\_

Pt. 2: Question 5 \_\_\_\_

Pt. 2: Question 7 \_\_\_\_

Pt. 2: Question 11 \_\_\_\_

Pt. 2: Question 12 \_\_\_\_

Pt. 2: Question 13 \_\_\_\_

Pt. 2: Question 16 \_\_\_\_

**Independence**

Pt. 1: Question 9 \_\_\_\_

Pt. 1: Question 13 \_\_\_\_

Pt. 1: Question 24 \_\_\_\_

Pt. 1: Question 25 \_\_\_\_

Pt. 1: Question 31 \_\_\_\_

**Coping Strategies / Emotions**

Pt. 1: Question 3 \_\_\_\_

Pt. 1: Question 4 \_\_\_\_

Pt. 1: Question 7 \_\_\_\_

Pt. 1: Question 8 \_\_\_\_

Pt. 1: Question 12 \_\_\_\_

Pt. 1: Question 30 \_\_\_\_

Pt. 1: Question 32 \_\_\_\_

Total Score \_\_\_\_ ÷ 4

Total Score \_\_\_\_ ÷ 4

Total Score \_\_\_\_ ÷ 12

Total Score \_\_\_\_ ÷ 5

Total Score \_\_\_\_ ÷ 7

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

Average Score \_\_\_\_

| Domain                               | Speech          | Expressive Language | Pragmatics    | Receptive Language / Attention |                              |
|--------------------------------------|-----------------|---------------------|---------------|--------------------------------|------------------------------|
| ICF-CY Body Function/Capacity Scores |                 |                     |               |                                |                              |
| Domain                               | Intelligibility | Expressive Language | Social / Play | Independence                   | Coping Strategies / Emotions |
| ICF-CY Performance Scores            |                 |                     |               |                                |                              |

SCORING

Holland Bloorview Kids Rehabilitation Hospital

FOCUS TOTAL SCORE

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# Children

- 2-hour comprehensive assessment with a clinician











































## Category 1

|    |                     |   |   |    |  |
|----|---------------------|---|---|----|--|
| 1. | Hearing             | Audiometric Screen  | Screen hearing skills   | 3  |  |
| 2. | Nonverbal IQ        | Primary Test of Nonverbal Intelligence (PTONI)                    | Formal evaluation of nonverbal thinking skills                                  | 7  |  |
| 3. | Oral Motor Skills   | DEAP – Oral Motor Assessment subtest                              | Tool used to evaluate oral motor skills   | 3  |  |
| 4. | Receptive Language  | Peabody Picture Vocabulary Test (PPVT)                            | Evaluates word-level receptive language   | 10 |  |
| 5. | Receptive Language  | CELF: Sentence structure (SS) subtest ( <b>yellow</b> )           | Evaluates sentence-level receptive language                                     | 5  |  |
| 6. | Emergent Literacy   | Preschool Word and Print Awareness (PWPA)                         | Informal evaluation of print concept development during a book-reading activity | 5  |  |
| 7. | Children's Feelings | Speech Participation and Activity Assessment in Children (SPAA-C) | Picture-based rating scale about speech skills                                  | 2  |  |
| 8. | Drawings            | Sound Effects Study Protocol                                      | Protocol for the collection of children's drawings                              | 5  |  |

# Children

- SPAA-C

|  | Happy   | In the middle   | Sad   | Another feeling   | Don't know |
|--|---|---|---|---|------------|
| 1. How do you feel about the way you talk?                     |  |  |  |  | ?          |
| 2. How do you feel when you talk to your best friend           |  |  |  |  | ?          |
| 3. How do you feel when you talk to your brother?              |  |  |  |  | ?          |
| 4. How do you feel when you talk to your mum and dad?          |  |  |  |  | ?          |
| 5. How do you feel when you talk to your school teachers?      |  |  |  |  | ?          |
| 6. How do you feel when your teachers ask you a question?      |  |  |  |  | ?          |
| 7. How do you feel when you talk to the whole class?           |  |  |  |  | ?          |
| 8. How do you feel when you play with the children at school?  |  |  |  |  | ?          |
| 9. How do you feel when you play on your own?                  |  |  |  |  | ?          |
| 10. How do you feel when people don't understand what you say? |  |  |  |  | ?          |

From: McLeod, S. (2004). Speech pathologists' application of the ICF to children with speech impairment. *International Journal of Speech-Language Pathology*, 6(1), 75-81.

Data courtesy of the "Jamaican Children's Speech and Language Skills" research project

Investigators: Karla Washington, Sharynne McLeod, Maureen Samms-Vaughan, & Hubert Devonish

Funding: Vice President for Research, University of Cincinnati Start-up Funds and the Australian Research Council Future Fellowship Award (FT0990588)

# Children

## • Drawing Protocol

"I want you to draw a picture for me. Is it OK if I keep it when you are done?"

"Draw a picture of you talking to someone"

### Replica Drawing



Notes

### Questions

1. Who is in the drawing?

him and mommy + daddy

2. How do you know this person (i.e. friend, brother etc)?

mom + daddy

3. Do you usually like talking to this person?

yes

4. Where are you?

school

5. What are you/they doing?






talking

6. What are you saying/talking about?

T.V.

7. Ask them to identify any unknown objects.

"How do you feel about the way you talk?" (circle the picture)

| Happy   | In the middle   | Sad   | Another feeling   | Don't know  |
|---|---|---|---|---|
|  |  |  |  |  |

Holliday, E. L. (2008). *A drawing tells a thousand words: Listening to children talking through their drawings*. Unpublished honours thesis. Bathurst, Australia: Charles Sturt University.

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Award (FT0990588)

# Children

## • Drawing Protocol

"I want you to draw a picture for me. Is it OK if I keep it when you are done?"

"Draw a picture of you talking to someone"

### Replica Drawing



### Questions

1. Who is in the drawing?

d, brother etc)?

n?

ts.

(circle the picture)

Notes

| Happy | In the middle | Sad | Another feeling | Don't know |
|-------|---------------|-----|-----------------|------------|
| 😊     | 😐             | 😞   | 🌑               | ?          |

# Children

- 2-hour comprehensive assessment with a clinician

Mi a go chat  
iina Jamiekan  
fi dis “Anti”



I have to say it  
in English for  
this “Aunty”

| <b>Category 2 (Standard Jamaican English)</b> |                     |  |   |    |
|---|---------------------|--|---|----|
| <b>First</b>                                  |                     |  |   |    |
| 1.  | Expressive Language | Spontaneous language sample  | (morphemes, mean length of utterance, syntax)       | 10 |
| 2.  | Speech Skills       | Diagnostic Evaluation of Articulation Phonology (DEAP) Articulation and Phonology subtests | Formal measure of articulation and phonology skills | 14 |
| 3.  | Expressive Language | Clinical Evaluation of Language Fundamentals (CELF) Word Structure (WS) (Purple)           | Formal measure of expressive morphology and syntax  | 10 |
| 4.  | Expressive Language | CELF Expressive Vocabulary (EV) (Blue)   | Formal measure of expressive vocabulary             | 5  |
| <b>Category 2 (Jamaican Creole)</b>           |                     |  |   |    |
| <b>Second</b>                                 |                     |  |   |    |
| 5.  | Expressive Language | Spontaneous language sample  | (morphemes, mean length of utterance, syntax)       | 10 |
| 6.  | Speech Skills       | DEAP Articulation and Phonology subtests   | Articulation and phonology skills                   | 14 |
| 7.  | Expressive Language | CELF Word Structure (WS) (Purple)  | Expressive morphology and syntax                    | 10 |
| 8.  | Expressive Language | CELF Expressive Vocabulary (EV) (Blue)   | Formal measure of expressive vocabulary             | 5  |

# Assessment Approach

| Domain                                 | Mode   | Measure/Tech nique   | Description                     | Languages Elicited   |
|--|--|--|---------------------------------|--|
| Speech sound production - Articulation | Verbal – single word                               | <i>Diagnostic Evaluation of Articulation and Phonology (DEAP;</i> Dodd et al. 2002)            | <b>Articulation subtest</b>     | <ul style="list-style-type: none"> <li>• Jamaican Creole</li> <li>• Standard Jamaican English</li> </ul> |
| Speech sound production - Phonology    | Verbal response – single word                      | <i>DEAP</i> (Dodd et al. 2002)   | <b>Phonology subtest</b>        | <ul style="list-style-type: none"> <li>• Jamaican Creole</li> <li>• Standard Jamaican English</li> </ul> |
| Expressive Language-Vocab              | Verbal response – single word                      | <i>Clinical Evaluation of Language Fundamentals – Preschool 2 (CELF-P2;</i> Wiig et al., 2004) | <b>Expressive vocab subtest</b> | <ul style="list-style-type: none"> <li>• Jamaican Creole</li> <li>• Standard Jamaican English</li> </ul> |
| Expressive Language-Morphosyntax       | Verbal response-single word/phrase /short sentence | <b>CELF-P2</b> (Wiig et al., 2004)   | <b>Word structure subtest</b>   | <ul style="list-style-type: none"> <li>• Jamaican Creole</li> <li>• Standard Jamaican English</li> </ul> |
| Spontaneous Production                 | Verbal response                                    | Elicitation of spontaneous sample <b>during play</b>   | <b>Free play with SLP</b>       | <ul style="list-style-type: none"> <li>• Jamaican Creole</li> <li>• Standard Jamaican English</li> </ul> |

# Resources - Clinical

| Clinical Tool  | Author(s)  | Website   |
|--|--|---|
| Intelligibility in Context Scale – Jamaican Creole (n=98 3-to-6 year olds) | McLeod, Harrison & McCormack (2012; Washington & Devonish Trans, 2014) | <a href="https://cms.csu.edu.au/research/multilingual-speech/ics">https://cms.csu.edu.au/research/multilingual-speech/ics</a> |
| Grammatical Morphemes Patterns – Jamaican Creole (n=145, 3-to-6 year olds) | Washington, McLeod, Devonish, Samms-Vaughan (2014)                     | <u>Not yet available</u>  |
| Phonetic Transcription Guide (n=145, 3-to-6 year olds)                     | McLeod, Washington, Devonish, Samms-Vaughan (2015)                     | <u>Not yet available</u>  |

# Mezha fi Omoch ada Piip kyan Andastan di Pikni: Jamiekan

**Intelligibility in Context Scale: Jamaican Creole** (McLeod, Harrison, & McCormack, 2012)

Translated by: Karla N. Washington, Ph.D., University of Cincinnati, USA  
and Hubert Devonish, Ph.D., University of the West Indies, Mona Campus, Jamaica, 2014

Di **pikni niem** (Child's name): \_\_\_\_\_

Di diet di **pikni baan** (Child's date of birth): \_\_\_\_\_ A **Bwai-pikni/Gyal-pikni** (male/female): \_\_\_\_\_

**Bajit dong di langwii dem** we di **pikni taak** (Language(s) spoken): \_\_\_\_\_

Tide diet (Current date): \_\_\_\_\_ Di **pikni iei** (Child's age): \_\_\_\_\_

Di **smadi niem** we a **ful out dis ya faam** (Person completing this form): \_\_\_\_\_

A **uu yu bi tu di pikni** - Se if **yu a mada, fada, anti, ar wa?** (Relationship to the child): \_\_\_\_\_

**Wi a go aks yu kwestiyon** bout wen **yu pikni chat, omoch a we di pikni se ada piip kyan andastan**. Yu fi **ansa azkaadn tu ou yu pikni did a chat ina mont we dis gaan**. **Jraa wan sorki roum jos wan nomba fi evri kwestiyon**.

(The following questions are about how much of your child's speech is understood by different people. Please think about your child's speech over the past month when answering each question. Circle one number of each question)

|  | <b>Evri taim</b><br>(Always) | <b>Muos taim</b><br>(Usually) | <b>Somtaim</b><br>(Sometimes) | <b>Aadli eva</b><br>(Rarely) | <b>Neva</b><br>(Never) |
|--|------------------------------|-------------------------------|-------------------------------|------------------------------|------------------------|
| 1. <b>Yu andastan wen yu pikni chat?</b><br>(Do you understand your child?)  | 5                            | 4                             | 3                             | 2                            | 1                      |
| 2. <b>Wen di pikni chat, di famli memba dem</b> we liv <b>wid di pikni andastan?</b><br>(Do immediate members of your family understand your child?) | 5                            | 4                             | 3                             | 2                            | 1                      |
| 3. <b>Wen di pikni chat, famli we no liv wid di pikni andastan?</b><br>(Do extended members of your family understand your child?)                   | 5                            | 4                             | 3                             | 2                            | 1                      |
| 4. <b>Yu pikni fren dem andastan wen yu pikni a chat?</b><br>(Do your child's friends understand your child?)  | 5                            | 4                             | 3                             | 2                            | 1                      |
| 5. <b>Wen yu pikni chat, ada piip we di pikni nuu andastan?</b><br>(Do other acquaintances understand your child?)                                   | 5                            | 4                             | 3                             | 2                            | 1                      |
| 6. <b>Wen yu pikni chat, di tiicha dem andastan?</b><br>(Do immediate members of your family understand your child?)                                 | 5                            | 4                             | 3                             | 2                            | 1                      |
| 7. <b>Wen yu pikni chat tu schrienja, di schrienja dem andastan?</b><br>(Do strangers <sup>2</sup> understand your child?)                           | 5                            | 4                             | 3                             | 2                            | 1                      |
| <b>Evriting ad op tu (TOTAL SCORE) =</b>   | /35                          |                               |                               |                              |                        |
| <b>AVRU fi evriting (AVERAGE TOTAL SCORE) =</b>  | /5                           |                               |                               |                              |                        |

<sup>1</sup> If, evritaim, wen di **aad 'pikni'** yuut ina dis ya faam, yu chosoi tu di **man/woman yu a liv wid**, yu kyan yuut dis ya faam, fi dili wid di **oe** wan big man ac unpa chat (This measure may be able to be adapted for adults' speech, by substituting child with spouse)

<sup>2</sup> Ina dis ya faam, yu kyan chosoi **schrienja tu smadi** we di **pikni no ova**. (The term strangers may be changed to unfamiliar people)

**Enlbad kyan kapi dis ya vortzan a di Intelligibility in Context Scale** (This version of the Intelligibility in Context Scale can be copied.)

Dis ya Mezha fi Omoch ada Piip kyan Andastan di Pikni av wan laisn azkaadn tu wan.

Intelligibility in Context Scale is licensed under [Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Unported License](https://creativecommons.org/licenses/by-nc-nd/3.0/).

McLeod, S., Harrison, L. J., & McCormack, J. (2012). The Intelligibility in Context Scale: Validity and reliability of a subjective rating measure. *Journal of Speech, Language, and Hearing Research*, 55(2), 648-656. <http://jslhr.asha.org/cgi/content/abstract/55/2/648>

Additional  
Researcher  
Megan  
McDonald,  
ASHA-SPARC





# Resources

| Grammatical structure (morpheme)      | JC Rule   | Realization   |
|---------------------------------------|---|---|
| Present progressive (ing)             | /a/ before root verbs to signal continuative/progressive aspect<br>-Tense not overtly marked    | Playing = <b>a plie (a play)</b>  |
| Regular third person (s)              | To signal habitual use -unmarked form of the verb with all subjects<br>Tense not overtly marked | Plays = <b>plie (play)</b>  |
| Irregular past (change in root verb)  | Use of unchanged root verb to mark irregular past   | Flew = <b>flai (fly)</b>  |
| Regular past (ed)                     | Use of unmarked verb form to signal completive aspect   | Played = <b>plie (Play)</b>   |
| Comparative (er)<br>Superlative (est) | Comparative –a and superlative-<br>is in suffix position  | faster = <b>faasa</b><br>fastest = <b>faasis</b>  |
| Pronoun (she, him, her, they)         | Gender typically undifferentiated<br>Case can be undifferentiated                               | She = <b>shi/im (She/him)</b><br>He = <b>im</b><br>Him = <b>im</b> ; her = <b>ar/im</b><br>They/Them = <b>dem</b> |
| Possessive “s”                        | Possessor “di” is in the front position<br>* “fi” could be added for emphasis                   | Boy’s ball = <b>di bwai baal</b> ; <b>fi di bwai baal</b> ; a di Bwai uon   |

# Resources

## Phonetic Transcription Guide

| Sample word               | Phonetic transcription                              | Known Error                  | Consonants Correct | Vowels Correct | Phonemes Correct | Lexical change |
|---------------------------|---|------------------------------|--------------------|----------------|------------------|----------------|
| Pig                       | [pɪg] [pɪgə]<br>[pɪgi] [pɪgɪ]<br>[pɪgz]             | [pɪkə] [bɪg]                 | 2(3)               | 1(2)           | 3(4)             | no             |
| Sock<br>(one foot a sock) | [sɒk] [sak]<br>[saks]<br>[sɒks]<br>[wan fut a saks] | [θɒk] [θak]<br>[θɒkθ] [ʃaks] | 2(3)               | 1(4)           | 3(4, 11)         | yes            |
| Thumb<br>(big finger)     | [θɒm] [tɒm]<br>[bɪg fɪŋgə]<br>[fɪŋgə]<br>[fɪŋgɜ]    | [tɒŋ] [fɒm]                  | 2( 3,5)            | 1(2)           | 3 (5, 6, 8)      | yes            |

# Resources - Additional

| Topic                        | Resource     | Reference  |
|------------------------------|--------------|--|
| Speech and Language          | Dictionary   | Cassidy, F. G., & Le Page, R. B. (Ed.). (2002). <i>Dictionary of Jamaican English</i> . (2 <sup>nd</sup> ed.). Kingston, Jamaica: University of the West Indies Press.   |
| Speech                       | Journal      | Devonish, H., & Harry, O. G. (2004). Jamaican phonology. In B. Kortman, & E. W. Shneider, (Eds.). <i>A handbook of varieties of English</i> , vol 1: <i>Phonology</i> , (pp. 441-471). Berlin: Moton De Gruyter.   |
| Speech                       | Journal      | Harry, O. G. (2006). Jamaican creole. <i>Journal of the International Phonetic Association</i> , 36(1), 125-131.   |
| Education                    | Journal      | Morren, R. C., & Morren, D. M. (2007). Are the goals and objectives of Jamaica's bilingual education project being met? <i>SIL International July 2007</i> , 1-10.   |
| Child Development            | Book         | Samms-Vaughan, M. (2005). <i>The Jamaican pre-school child: The status of early childhood development in Jamaica</i> . Kingston, Jamaica: The Planning Institute of Jamaica.   |
| Orthography                  | Book         | The Jamaican Language Unit. (2009). <i>Writing Jamaican the Jamaican way: Ou fi rait Jamiekan</i> . Kingston, Jamaica: Arawak Publications.  |
| Historical Overview          | Book         | Cassidy, F.G. (1961/2006). <i>Jamaica Talk: Three hundred years of the English Language in Jamaica</i> . University of the West Indies Press. Kingston, Jamaica  |
| Speech and clinical practice | Book chapter | Washington, K. N. (2012). Translation to practice: Typical bidialectal speech acquisition in Jamaica. In S. McLeod & B. A. Goldstein (Eds.), <i>Multilingual aspects of speech sound disorders in children</i> (pp. 101-105). Bristol, UK: Multilingual Matters. |

## 5. Measuring communicative participation outcomes in Canadian preschoolers using the ICF framework

---

Nancy Thomas-Stonell, B.Sc., D.S.P.

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Scientist, Bloorview Research Institute

Assistant Professor,  
University of Toronto



# Disclosure Statement

- The FOCUS<sup>®</sup> outcome measure is available for download at **no cost** through the Holland Bloorview Kids Rehabilitation Hospital website.
- I am the author of the FOCUS and currently employed at the Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital.

## Funding provided by:

- Canadian Institutes of Health Research
- SickKids Foundation
- Bloorview Research Foundation

## What is the FOCUS?



The FOCUS is a **valid, reliable, responsive** treatment outcome measure that captures ‘**communicative participation**’ changes following speech and language treatment.

# The FOCUS:

- is an outcome measure for preschool children (1.5 – 6 yrs.) attending speech-language therapy.
- can be used with children who have a variety of communication disorders.
- has 50 items.
- takes 10 minutes to complete.
- is primarily a parent measure.

# The FOCUS

- The FOCUS is criterion referenced.
- It takes a verbal ‘snapshot’ of the child’s skills at Time 1 and Time 2.
- The difference in the scores measures change.



# Developed and Validated by 11 Preschool Programs across Canada



## The FOCUS is Valid

✓ It measured more change during a treatment interval than during a wait list interval ( $p < .01$ ).

Wait List Interval: + 6 points

Treatment Interval: + 18 points

✓ Convergent and discriminant validity with the ASQ-SE

# FOCUS agrees with Speech and Language Measures

✓ FOCUS change scores significantly agreed ( $p < .05$ ) with change scores obtained from randomized, blinded analysis of pre and post treatment videos.

- Child Speech Intelligibility Measure (CSIM)
- Percent Consonants Produced (PCC-R)
- Developmental Sentence Scoring (DSS)

✓ Disagreements made sense.

# The FOCUS is Reliable

- ✓ Parent & clinician test-retest reliability was very high. ( $r > .95$ )
- ✓ Clinician inter-rater reliability was higher than most tests! (ICC = 0.93) (CI = .87-.97)

[Schumacker, 2005]

# Who is the FOCUS designed for?

- The FOCUS is designed for children with a variety of communication disorders.
- Included in the database are children with a variety of communication disorders (e.g., speech, language delay, SLI, ASD, hearing impairment, global developmental delay, and those using AAC).

# PREVALENCE OF COMMUNICATION DISORDERS IN PRESCHOOLERS

---

# Communication Disorders in Preschool Children

- Prevalence data often reported for specific communication disorders (e.g., speech disorders) rather than overall prevalence.
- 1 in 4 preschool children (25%) are identified by parents/teachers as having speech and/or language difficulties. (McLeod and Harrison, 2009)

# Communication Disorders in Preschool Children

- Boys are twice as likely as girls to start primary school unable to speak properly.

([www.telegraph.co.uk/education/education](http://www.telegraph.co.uk/education/education); Mar 26,2015)

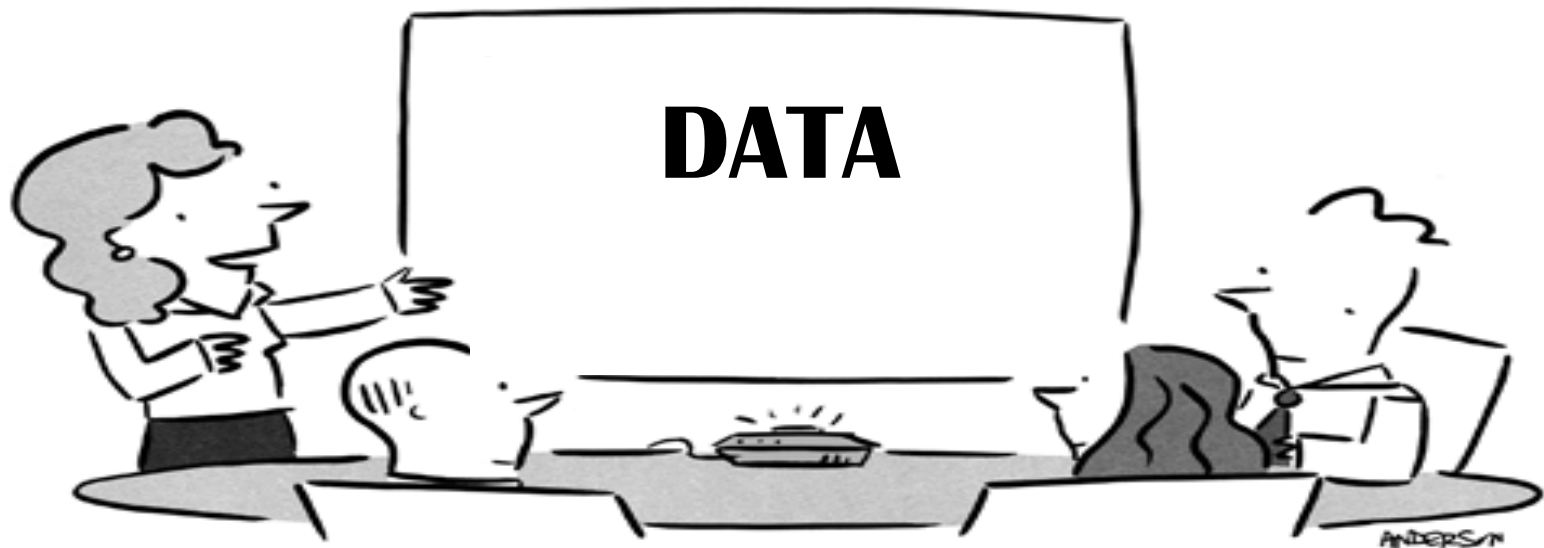
- Ontario data shows that 66% of preschoolers receiving speech-language therapy are boys (N=18,000).



# Rationale for using the ICF-CY

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"It speaks for itself."

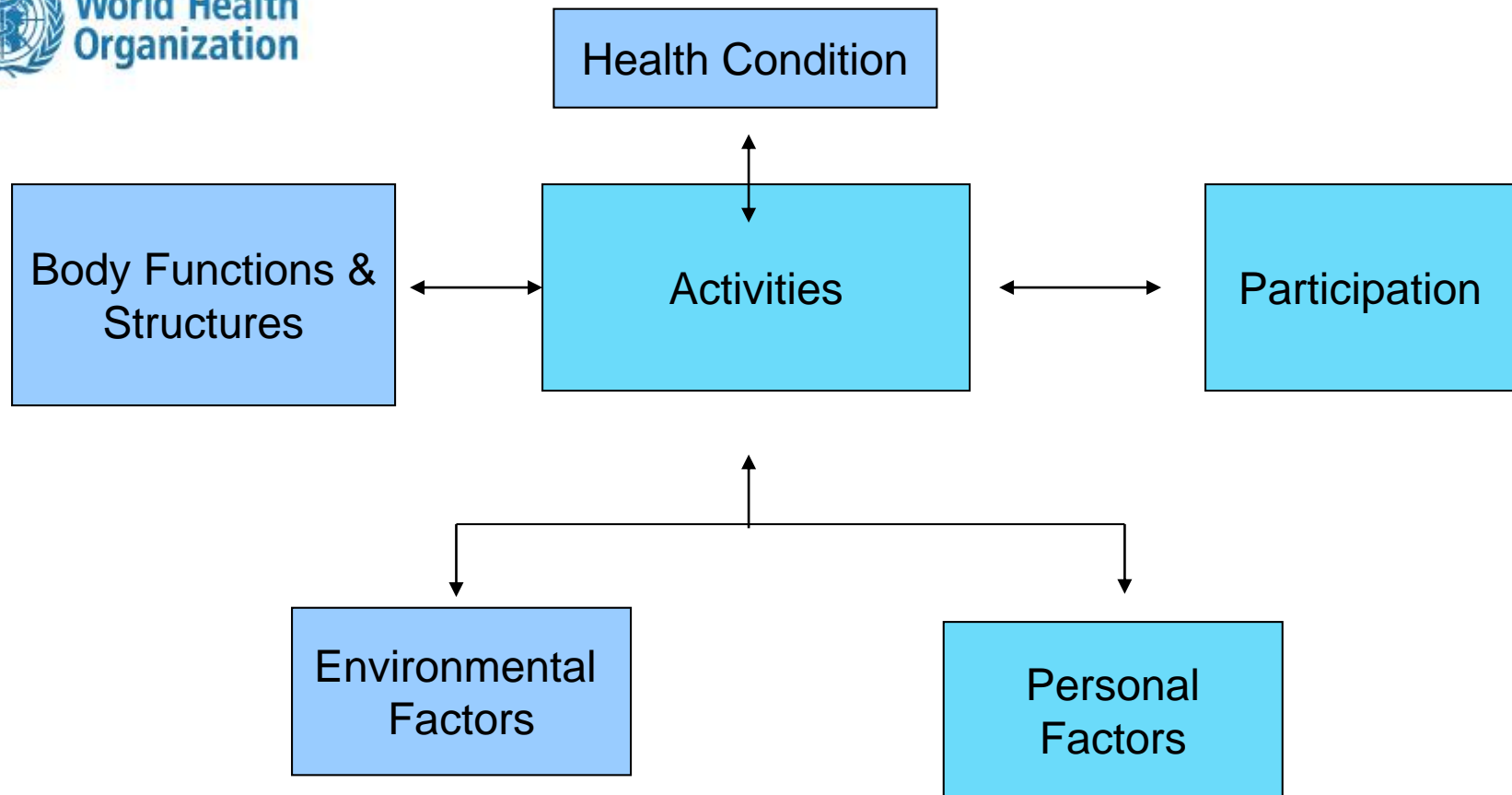
# Developing the FOCUS

- We collected data from 210 parents of preschoolers receiving speech-language therapy and their clinicians.
- After therapy they answered the following questions:
  - My child is now able to...
  - What other changes did you see?
  - Why is that important?

# Completed a Content Analysis of the Data

- Content analysis is the “systematic, objective analysis of message characteristics” to make valid inferences from text. (Neuendorf, 2002).
- Three researchers independently analyzed the data and then compared categories to organize them into schema.
- Percentages of occurrence for each category were calculated.

# Comments aligned with the ICF-CY



FOCUS items were developed for every category with  $\geq 10\%$  occurrence.

## Parent Comment

“His **play with peers** has improved in terms of sharing, turn-taking, following conversations, acting less aggressively.”

## Category/ICF-CY coding:

- Complex Interpersonal Interactions d720

## FOCUS Item

“My child plays well with other children.”

# Method: 6 Linked-Steps

1. Created FOCUS items
2. Tested the measure with clinicians and families
3. Revised the measure using the parent and clinician feedback and measurement science
4. Tested the revised measure
5. Revised measure again
6. Tested measure a third time

# Three revisions reduced the FOCUS from 104 items to 50 items

## Initial FOCUS

- Body Functions 9 %
- Activities/Capacity 28 %
- Participation/Perf. 54 %
- Personal Factors 20 %
- Environ. Factors 3 %

## Final FOCUS

- **Body Functions** 2 %
- **Activities/Capacity** 34 %
- **Participation/Perf.** 56 %
- **Personal Factors** 10 %
- **Environ. Factors** 0 %

- FOCUS now measures 'communicative participation'.
- Activities and Participation items increased to 90%.
- FOCUS takes 10 minutes to complete.

# Why is participation important?

- We need to look at the impact of treatment on the whole child.
- If we are treating articulation, what is the impact on the child's life?
  - Better understood?
  - Less frustrated?
  - Play better/more with other children?
  - Less teased by other children?





## FOCUS Scoring Profile provides additional information for clinicians.

- Items grouped according to the ICF-CY Body Function/Capacity and Performance components and categorized by communicative participation skills.
- The Scoring Profile shows where the child has made the most/least change. This information supports treatment planning.

# The Scoring Profile

- **ICF-CY Body Function/Capacity**
  - Speech
  - Expressive language
  - Pragmatics
  - Receptive Language/Attention
- **ICF-CY Performance**
  - Intelligibility
  - Expressive Language
  - Social/Play
  - Independence
  - Coping Strategies/Emotions



# Canadian Outcome Measurement Data



# Nova Scotia Hearing and Speech Centres

- NSHSC serves all of Nova Scotia and provides more than 50,000 visits per year.
- NSHSC has piloted implementation strategies (parent vs clinician forms) for using the FOCUS across the Province.
- They collected change data on 140 children.

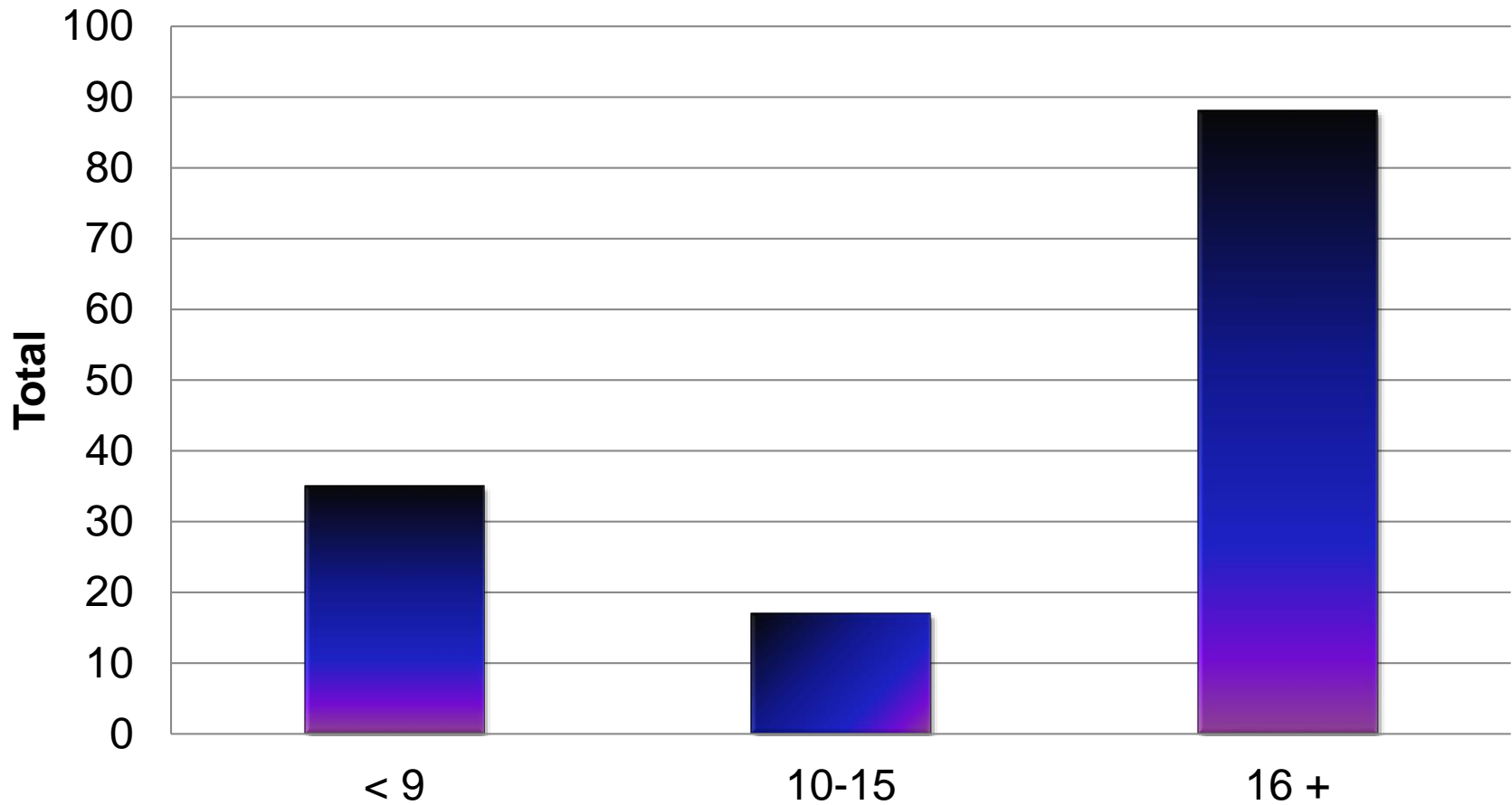
# Value of Outcome Measures



# More numbers do not necessarily reflect an effective service!



# Sixty-three percent of children made clinically significant change

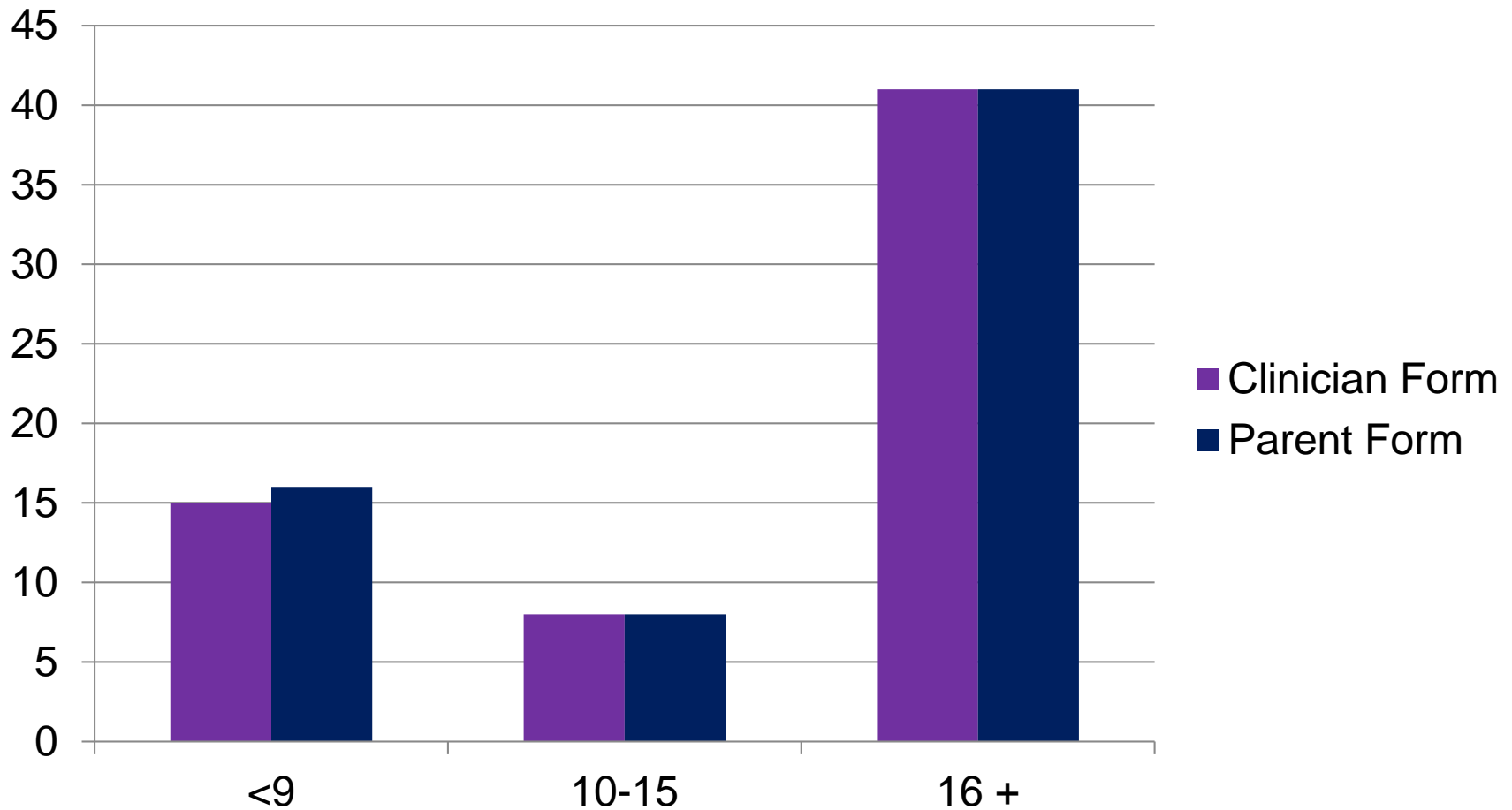


## Why <9?

- Review of cases <9 (25%) indicated that...
- some parents became more aware of their child's communication difficulties as treatment progressed.
- young children with profound delays/disorders made less change.
- children with mild delays/disorders in one domain (e.g.,. Lisp) made less change.



# Parent vs Clinician Forms



# Parent Comments

- Parents reported that the FOCUS helped them be better observers of their child's communication skills.
- It helped them understand the treatment process.
- Having their observations solicited made them feel more like partners in the rehabilitation process.

## Speech-Language Pathologists' Comments

- SLPs changed their intake procedures after using the FOCUS to obtain information from the parents regarding the child's communication abilities at home and in the community.
- The FOCUS increased SLPs' awareness of the importance of participation outcomes in speech-language therapy.

# Nova Scotia Hearing and Speech Centres' Recommendations

- FOCUS implemented as of July 2015.
- Parent form is the primary form.
- Clinician form will be used in specific circumstances.
- FOCUS will be administered at:
  - Assessment
  - End of Treatment Program
  - or after 6 months

# Ontario Preschool Speech-Language Program (PSLP)

- The FOCUS was introduced into their Outcome Measure Strategy in Oct 2012.
- PSLP serves all of Ontario and provides service to more than 58,000 children per year between birth and Senior Kindergarten.
- FOCUS change data has now been collected on more than 18,000 children.

# Partnering with the Ontario Preschool Speech-Language Program

- The majority of children made clinically significant change (>16 pts) six months after assessment.
- Clinically significant change was found across ages and communication disorder severity.
- Exception: Similar to NS data - younger children (<2 yrs) with severe communication disorders made less change.

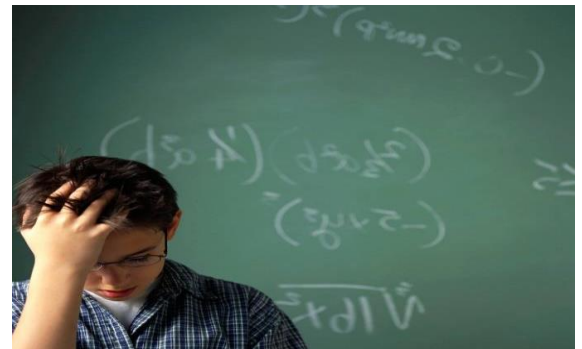
# CURRENT RESEARCH

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A New Version of the FOCUS  
with 34 items: FOCUS-34

# FOCUS-34

- Large amount of data from Ontario provides the opportunity to refine the FOCUS to increase its clinical efficiency.
- Data were grouped by age, presence/absence of treatment and the severity of delay/disorder according to the five Communication Function Classification System (CFCS) levels.





# Results of Data Analyses

- Cronbach's Alpha and Item Response Theory models were run on subgroups.
- 16 items were identified that:
  - contributed less to the total change score
  - did not work as well for some of the groups of children
  - were redundant with other FOCUS items

# Results of Data Analyses

- FOCUS-34 predicts the 50 item FOCUS total scores at each administration ( $r = .99$ ).
- FOCUS-34 change scores predicts FOCUS change scores ( $r = .97$ )
- FOCUS-34 has identical psychometric properties to the FOCUS.

# FOCUS vs FOCUS-34

## FOCUS

- Body Functions 2 %
- Activities/Capacity 34 %
- Participation/Perf. 56 %
- Personal Factors 10 %

## FOCUS-34

- **Body Functions 0 %**
- **Activities/Capacity 38 %**
- **Participation/Perf. 53 %**
- **Personal Factors 9 %**

- Body Function items removed
- Continued emphasis on Activities and Participation items (91%)
- Majority of Personal Factors items retained

## FOCUS-34 Revisions

- All negatively worded items were removed.
- Activity/Capacity Profile Categories were realigned.
  - ✘ Speech category (Body Function items)
    - ✓ More emphasis on Expressive Language
    - ✓ Pragmatics and Receptive Language/Attention items were retained.

# All Performance Categories Retained

- Intelligibility
- Expressive Language
- Social/Play
- Independence
- Coping Strategies/ Emotions
- Highest emphasis remains on the **social/play items** (~40% of items).

# FOCUS-34

Now available for  
clinical use!



# Resources



# Where do I find the FOCUS?

The FOCUS webpage is part of the Holland Bloorview website:

[www.hollandbloorview.ca](http://www.hollandbloorview.ca)

- search for FOCUS in upper right-hand corner of page

[www.focusoutcomemeasurement.ca](http://www.focusoutcomemeasurement.ca)

The FOCUS and FOCUS-34 are copyrighted and licensed and available for free download from Flintbox. A link is provided on the FOCUS webpage.





# Webpage Statistics

- FOCUS webpage is receiving over 100 hits a month.
- FOCUS has been downloaded by over 30 countries around the world: USA, England, Ireland, Scotland, Australia, New Zealand, Malaysia, Russia, Poland, Singapore, India, Iceland and more...



## FOCUS Webpage contains:

- FOCUS Outcome Measure (FOCUS and FOCUS-34)
- FOCUS forms available in paper and pdf fillable versions
- Administration Manual
- Parent Instruction Sheets
- Links to published papers
- Training Power Points
- Excel scoring program
- Frequently Asked Questions

# FOCUS Translations



- Agreements have been reached with several international SLP researchers to translate the FOCUS.
- FOCUS was translated by SLP's fluent in the language and back translated by a different SLP.
- The back translation was reviewed by the FOCUS team to ensure fidelity with the original FOCUS.

# FOCUS Translations



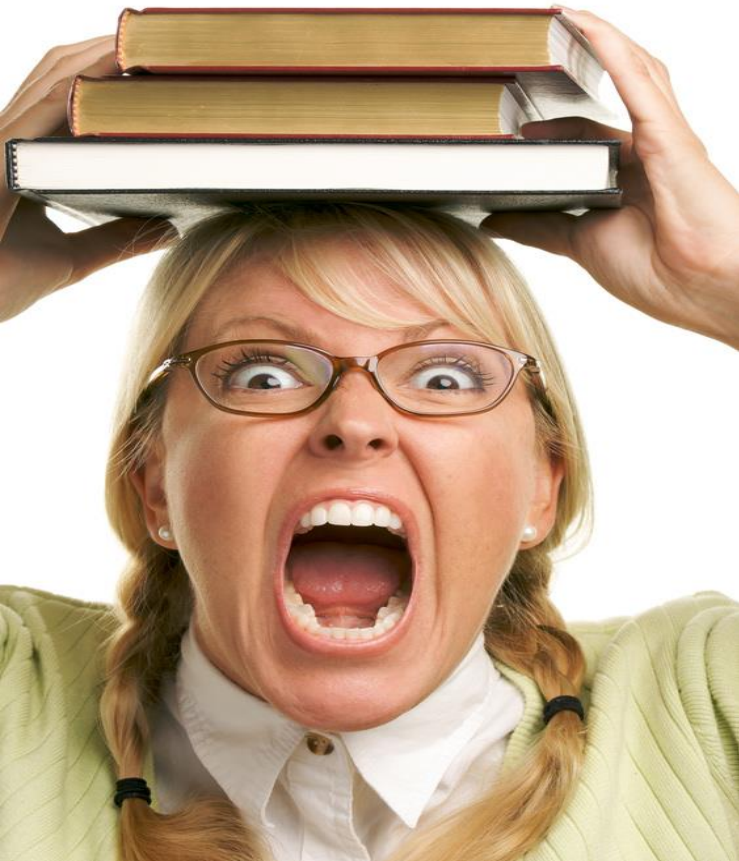
- Review of the back translated items is essential to ensure items retain their original meanings.
- FOCUS item: “My child takes turns.”
- Back-translated item: “My child takes turns speaking and listening.”
- These items are not the same. This item is meant to capture both verbal and non-verbal turn-taking and needed to be revised.

# FOCUS Translations



- FOCUS has been translated into: Afrikaans, Chinese, Danish, French, German, Hebrew and Spanish.
- Japanese and Greek translations are pending.
- In keeping with Canada's multi-cultural society, the Parent Instruction sheets have been translated into **14 languages**: Arabic, Traditional and Simplified Chinese, Farsi, French, German, Hebrew, Korean, Punjabi, Serbian, Spanish, Tagalog, Tamil and Urdu.

# A Little Light Reading



- Validation of the Focus on the Outcomes of Communication Under Six outcome measure
- Measuring communicative participation using the FOCUS<sup>©</sup>: Focus on the Outcomes of Communication Under Six.
- [nthomasstonell@hollandbloorview.ca](mailto:nthomasstonell@hollandbloorview.ca)
- [focus@hollandbloorview.ca](mailto:focus@hollandbloorview.ca)

## 6. Why and how to use the ICF in person-centered care of individuals with dementia (Canada)

---

**Tammy Hopper**, Ph.D. CCC-SLP  
University of Alberta, Alberta, Canada



# Disclosure Statement

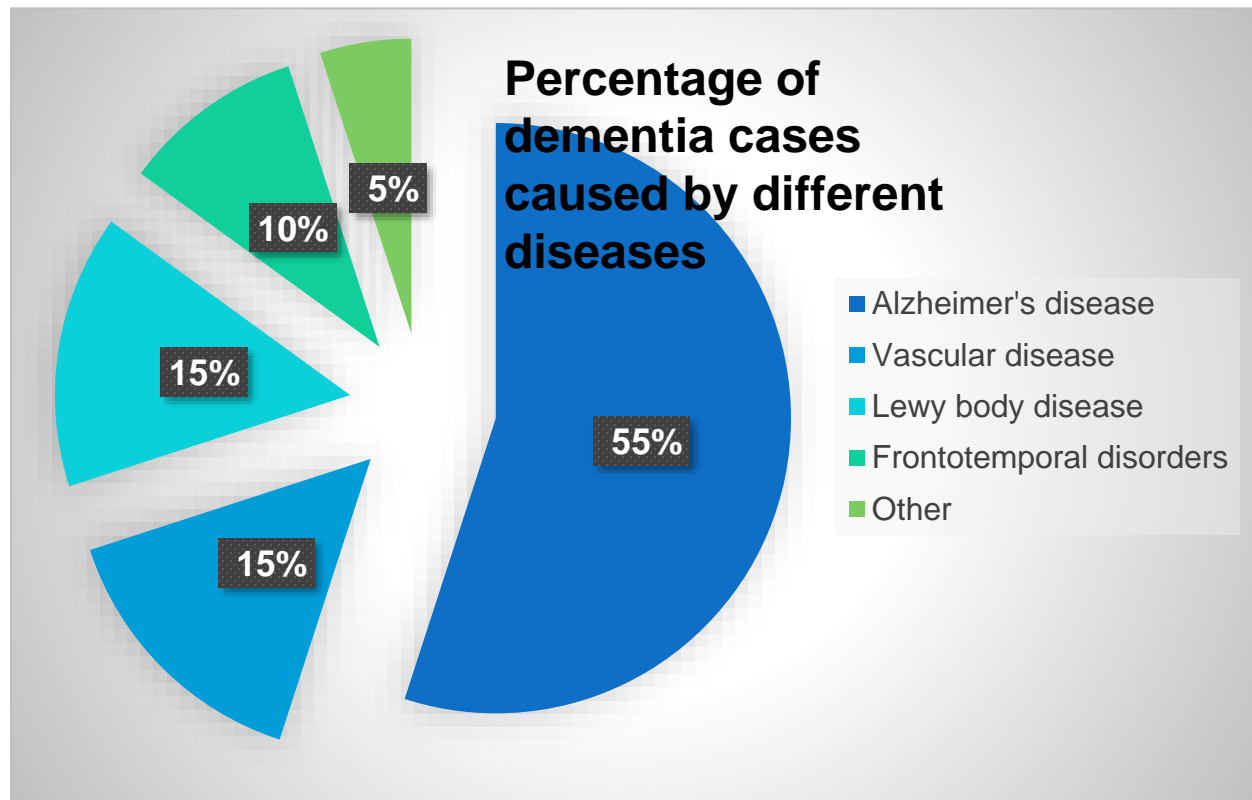
- Financial Disclosures:
  - Dr. Hopper is employed by the University of Alberta
  - Dr. Hopper has received honoraria from ASHA for past presentations
- Non-Financial Disclosures: Dr. Hopper has no relevant non-financial disclosures



# Context and population

- Dementia

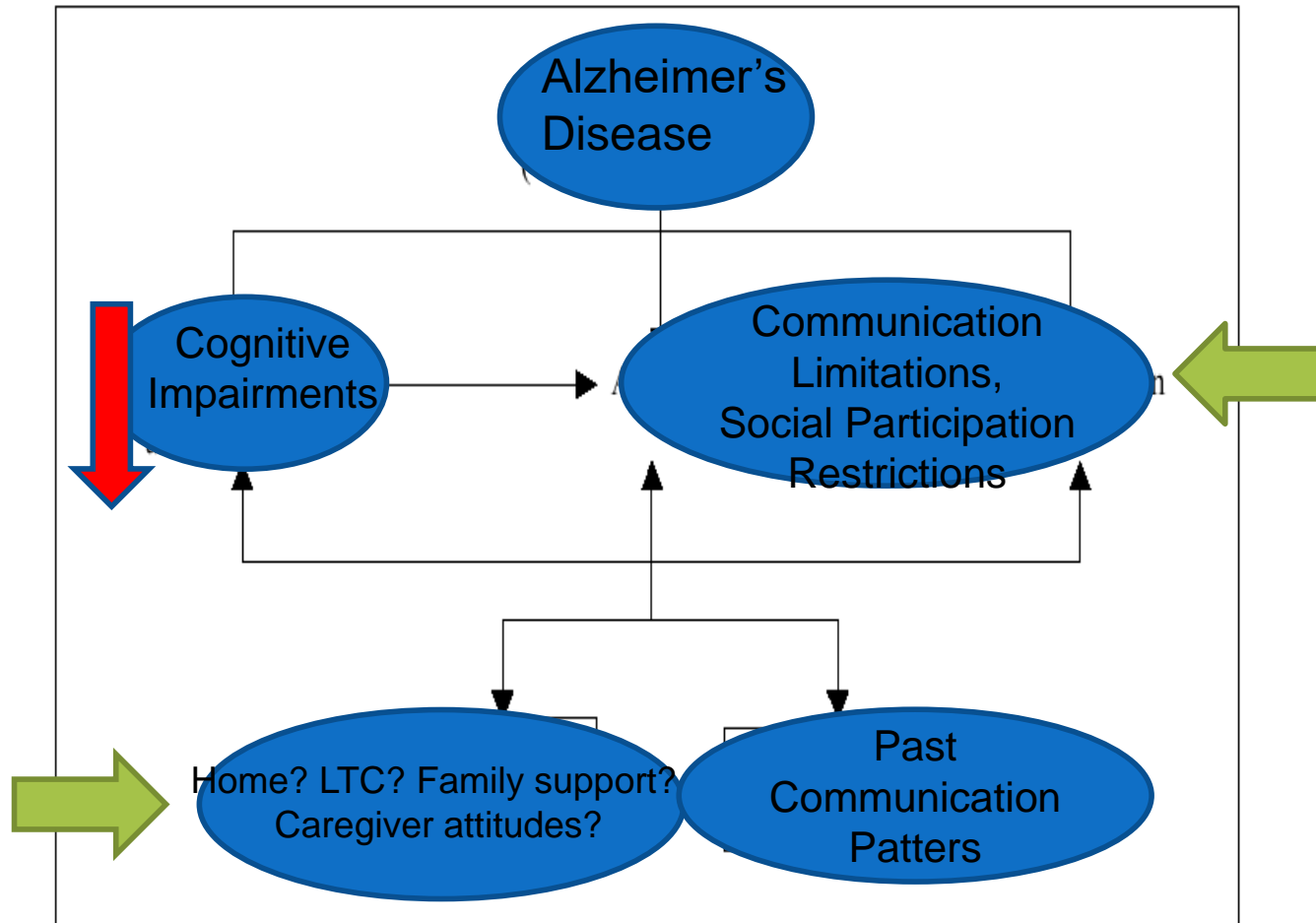
- A syndrome defined by multiple cognitive impairments
- Irreversible dementia can be caused by several health conditions



# Context and Population

- Canada's population is ~35,000,000; 2 official languages (French and English)
- Seniors make up 14% of the total population in 2011 (4.9 million)
  - Almost 30% of Canadian seniors (65+ years) are immigrants
  - Approximately 12-13% of seniors speak a non-official language at home
  - 7-8% of seniors belong to a visible minority group
  - Only 4% of Aboriginal people in Canada are over the age of 65 years
- The estimated number of individuals with dementia ~700,000 (2011); will increase to 1.4 million by 2030

# Rationale



(ICF: WHO, 2001)

# Application of the ICF in Dementia

- Maximizing function through focusing on activities/participation in direct interventions with clients
  - Person-centered care is consistent with the ICF – patients/clients and their family members are team members and make decisions about their own care and goals, in partnership with the clinician
  - Cultural and linguistic considerations will, then, be central in the process
- Evidence based, person-centered direct interventions to improve communication functioning of people with dementia include:
  - Written and graphic cues in the form of memory books and wallets (Bourgeois, 2013)
  - Reminiscence therapy
  - Spaced retrieval training (Camp & Brush, 2000)

# Application of the ICF in Dementia

- Indirect interventions that focus on environmental variables can have several foci

| <b>Constructs</b>  | <b>Relevant “e” codes</b>  |
|--|--|
| <b>Services, systems &amp; policies</b>                    | <b>Health services in residential care facilities e580; educational &amp; training services e5850</b>                                |
| <b>Support &amp; relationships</b>                         | <b>Immediate family e310; Acquaintances e325<br/>Personal care provider e340; Health professionals e355</b>                          |
| <b>Attitudes</b>   | <b>Immediate family e410; personal care providers e440; health professionals e450; social norms, practices &amp; ideologies e465</b> |
| <b>Natural &amp; human-made changes to the environment</b> | <b>Light e240 (intensity e2400 /quality e2401)<br/>Sound e250 (intensity e2400 /quality e2401)</b>                                   |

# Application of the ICF in Dementia

- Services/Systems issues: Long-term Care
  - In a survey of SLPs working with older adults in Canada, only 3% reported working in LTC settings (Hopper et al., 2007)
  - In LTC, SLPs reported that they often did not provide treatment to individuals with dementia because patients with more acute concerns have priority (e.g., those with dysphagia or with aphasia following stroke)
  - Referrals were a barrier as well: SLPs reported a lack of referrals from other health care professionals – attitudes?

# Application of the ICF in Dementia

- Attitudinal barriers: Lack of knowledge
- “I need some input regarding cognitive therapy for a woman in a skilled nursing facility in her late 80's who has moderate dementia. She has had a **decline in social interaction** and **increased agitation** in the past couple of weeks. I would love to work with her on finding some activities that she could attend to (or be redirected) to ease agitation. She is in a Broda chair and is actively moving throughout the building during the day **attempting to clean, fold, and hide things**. Family reports she has always been **compulsive about cleaning** and keeping personal items safe and hidden. She **used to work in a hotel in the laundry**. I observed her today with a few towels and she helped me fold them for approx. 20 minutes. Does anyone have experience with similar patients?”
- Reply: “That is too much! hopefully Medicare will deny the dementia 'tx'. How ridiculous and what are they teaching in school?”

# Application of the ICF

- Douglas et al (2014) investigated the perceptions of SLPs (and LTC administrators) regarding the use of external memory aids for residents with dementia
- The authors reported that LP knowledge, perceptions and organizational context all influenced implementation of an EBP such as the use of written and graphic cues in the form of memory aides
- Even when there is research evidence to support the use of an intervention, environmental barriers may exist that prevent or minimize the use of that intervention



# Application of the ICF

- In summary, the ICF is an important tool to help frame assessment and treatment for individuals with dementia
- Ever-worsening impairments in cognition mean that SLPs should focus on maximizing functional abilities through direct and/or indirect interventions (A/P and Environmental variables)
- Dementia is a public health priority (WHO, 2012) and interventions that are evidence-based, person-centered and framed using the ICF will be integral to meeting the needs of this diverse and rapidly growing segment of our world's population

# Resources

- Alzheimer Society of Canada (2010). *Rising tide: the impact of dementia on Canadian society*. Toronto, ON: ASC.
- Bourgeois, M. (2013). *Memory and Communication Aids for People with Dementia*. Health Professions Press.
- Byrne, K. & Orange, J.B. (2005). Conceptualizing communication enhancement in dementia for family caregivers using the WHO-ICF framework. *Advances in Speech-Language Pathology*, DOI:10.1080/14417040500337062
- Douglas, N., Hinckley, J., Haley, W., Andel, R., Chisholm, T., & Eddins, A. Perceptions of SLPs linked to EBP use in skilled nursing facilities. *American Journal of Speech-language Pathology and Audiology*, 23, 612-624.
- Hopper, T., (2007). The ICF and Dementia. *Seminars in Speech and Language*, 28(4):273-282.
- Muòà, R., Schindlerb, A., Verneroc, I., Schindlerc,O., Ferrarioda, E. & Frisoniea, G.B. (2005). Alzheimer's disease-associated disability: An ICF approach. *Disability and Rehabilitation*, DOI:10.1080/09638280500052542
- Lubinski, R. (1991). Murphy, J. & Boa, S. (2012). Using the WHO-ICF with Talking Mats to Enable Adults with Long-term Communication Difficulties to Participate in Goal Setting. *Augmentative and Alternative Communication* 28:1, pages 52-60.
- World Health Organization and Alzheimer's Disease International (2012): *Dementia: a public health priority*. Geneva, Switzerland; WHO.

# 7. Considerations for SLPs regarding clinical and research applications of the ICF: Resources and conclusions

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# Websites with free resources

- **American Speech-Language-Hearing Association**
- Multicultural affairs and resources  
<http://www.asha.org/practice/multicultural/>
- **Speech-Language Therapy** – Caroline Bowen
- [speech-language-therapy.com](http://speech-language-therapy.com)
- **Multilingual Children's Speech**
  - [www.csu.edu.au/research/multilingual-speech/](http://www.csu.edu.au/research/multilingual-speech/)
    - Languages
    - Typical speech acquisition
    - Assessments
    - Intelligibility in Context Scale

# ASHA

- Scope of Practice in Speech-Language Pathology (ASHA, 2007), advocates the use of the World Health Organization's (WHO) conceptual framework, the ICF (WHO, 2001) and (ICF-CY; WHO, 2007) in **clinical and research activities for adults and children**.
- This document states that, “The ICF framework is useful in describing the breadth of the role of the speech-language pathologist (SLP) in the prevention, assessment, and habilitation/rehabilitation, enhancement, and scientific investigation of communication and swallowing” (ASHA, 2007, p.4).

## ICF Framework for SLP:

- Health conditions that represent a continuum of functioning – from intact to completely compromised
  - Body functions and structures
  - Activity and participation
- Contextual factors
  - Environmental factors
  - Personal factors

American Speech-Language-Hearing Association. (2007). Scope of Practice in Speech-Language Pathology. Available from [www.asha.org/policy](http://www.asha.org/policy).

# UNESCO Universal Declaration on Cultural Diversity (2001)

“Affirming that  
respect for the diversity of cultures,  
tolerance, dialogue and cooperation,  
in a climate of mutual trust and understanding  
are among the best guarantees  
of international peace and security”



<https://www.facebook.com/DoOneThingforDiversityandInclusion>

UNESCO (2001). *Universal Declaration on Cultural Diversity*.

Retrieved from [http://portal.unesco.org/en/ev.php-URL\\_ID=13179&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html)

# Person-centered Outcomes in Culturally and Diverse Contexts: International application of the ICF

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