

**American Occupational Therapy Association
Outcomes Database Ad Hoc Task Force: Phase I**

**FINAL REPORT
June 2007**

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CHARGE (*condensed*)

Under II of AOTA Centennial Vision:

Demonstrating and articulating our value to individuals, organizations, and communities

The development of a universal computerized outcomes database was identified as a Board priority in order to meet the growing demands of consumers, payers and policymakers for demonstrating the value of occupational therapy services and how it meets the health, quality of life and participation needs of society.

*Various issues will have to be considered as we undertake this project with particular attention paid to market and policy issues affecting occupational therapy. Outcomes will be critical to promoting the identity of occupational therapy to consumers, assisting them to know what occupational therapy can do and to judge the effectiveness of the services they might receive. **Phase I will specifically deal with identification of the constructs essential for occupational therapists to measure across the life span. The group's work will be informed by the officials from appropriate external entities.***

KEY CONCEPTS THAT EMERGED FROM THE TASK FORCE DISCUSSION

During the task force deliberations, we agreed on the following points:

- 1) The impact of Centers for Medicare & Medicaid Services (CMS) Transmittal 63 should be considered in our deliberations. Transmittal 63 relates to outpatient services (Medicare Part B) and requires practitioners to document outcomes using specified performance measure tools (i.e., National Outcomes Measurement System [NOMS; American Speech and Hearing Association]; Outpatient Physical Therapy Improvement in Movement Assessment [OPTIMAL; American Physical Therapy Association], Focus

on Therapeutic Outcomes [FOTO], or Activity Measure for Post Acute Care [AM-PAC]) or documentation required to indicate “objective, measurable beneficiary physical function.” Options to meet these documentation requirements are further outlined in the transmittal.

2) Our charge related to the AOTA Centennial Vision strategic goal “to demonstrate and articulate the value of occupational therapy;” however, further clarification of the purpose for establishing an outcomes database is essential to proceeding forward. Developing an outcomes database may or may not demonstrate the value of occupational therapy services.

3) Estimating the contribution of occupational therapy services on patient outcomes from data within an interdisciplinary rehabilitation database will be challenging. In large part it would depend on the ability to accurately obtain data from process measures as well as data from outcome measures.

4) Collaboration with other organizations with expertise in outcomes measurement and database development had priority consideration throughout our deliberations.

5) The task force focus, as charged by the AOTA Board of Directors, was to identify the constructs that occupational therapy practitioners should be measuring for purposes of an outcomes database. In addition, the task force examined potential outcome instruments, potential partners, logistical considerations in developing an outcomes database, benefits and liabilities in developing an outcomes database, and future steps in this endeavor.

RECOMMENDATIONS

Below is a summary of the Task Force recommendations. Following each recommendation is a rationale that summarizes our discussion and suggested specific actions. Although our charge was to identify the constructs that should be measured in an outcomes database for occupational therapy, the task force felt that two additional questions should be discussed, 1) Should AOTA develop an outcomes database (or contract to have one developed)? And 2) if such a database were developed, what would its value be for occupational therapy practitioners and consumers? The following recommendations address:

- What constructs should be measured in an outcomes database for occupational therapy?
- What is or what should be the goal in developing a database?
- Should AOTA pursue development of an outcomes database?
- What strategies can be used to systematically gather and analyze outcomes data regarding occupational therapy services?
- Who should AOTA partner with in developing outcomes instruments and data collection systems?

- What strategies are needed to improve practitioners' understanding and use of outcomes measures?

What constructs should be measured in an outcomes database for occupational therapy?

Recommendation

The task force recommends that the Occupational Therapy Practice Framework "Areas of Occupation," as defined in Table 1 of the Framework appendix (attached as Appendix A), are appropriate constructs for an occupational therapy outcomes measure or outcomes database given that they define life activities within the profession's domain of practice and they are sufficiently specific to provide an appropriate level of measurement for occupational therapy services.

Rationale

Given the consensus process that went into developing the Framework provides a comprehensive, valid representation of the profession. Table 1 "Areas of Occupation," specifically defines ADL, IADL, education, work, leisure, and social participation performance outcomes that define the domain of our services. The task force agreed that all activities under areas of occupation should be represented within the database, although not necessarily with the intention of measuring them all on any particular patient. They noted that to adequately represent mental health practice, additional performance areas of occupation would need to be developed. The task force observed that while a number of the most commonly used outcome measures have items for activities of daily living and instrumental ADL, very few scales have items for work, education, play and social participation.

Among the tools recommended in Transmittal 63, the AM-PAC measures most of the Areas of Occupation. The AM-PAC was developed at Sargent College of Health and Rehabilitation Sciences, Boston University (BU) and is currently available through CRECare, which is affiliated with the Health and Disability Research Institute at the BU School of Public Health. The tool has two sections highly related to occupational therapy goals and services, "Applied Cognitive Activities" and "Personal Care and Instrumental Activities." When the task force quickly matched the AM-PAC to the Framework's Areas of Occupation, only sleep and sexual function were not represented. Other measures represent only a portion of the Framework Areas of Occupation. Dr. Coster seems open to working with AOTA in developing ways to make the AM-PAC easily accessible to occupational therapy practitioners and consider AOTA's interest as a database is established.

Next Steps

- The constructs from the Occupational Therapy Practice Framework "Areas of Occupation" should be used in future work on this initiative.
- The constructs of the Framework should be included in the Request for Proposals to develop and manage an outcomes database (further explained below).

- When developing an outcomes database for mental health practice, items need to be added to the “Areas of Occupation.” Examples of concepts that are used to measure mental health outcomes are reduced morbidity and social connectedness.
- The Board of Directors should consider approaching the developers of AM-PAC to determine if additional items could be incorporated in the scale to more fully measure the constructs in the Framework, Table 1.

What is or what should be the goal in developing an outcomes database?

Recommendation

Further clarification and guidance by the AOTA Board of Directors is needed as to what specific goals can be realized by developing an outcomes database.

Rationale

The Board of Directors charge indicated that the rationale for developing an outcomes database was to meet the growing demands of consumers, payers, and policymakers for demonstrating the value of occupational therapy services and how it meets the health, quality of life and participation needs of society. However, the task force believes that a database containing only outcomes measures may not produce data that achieve this goal. Members of the task force with extensive experience in outcomes measurement felt strongly that it was highly unlikely that a database of outcomes measures would be able to provide clear evidence of the value of occupational therapy.

Based on the knowledge and experience of task force members, outcomes data have a limited ability to demonstrate the value of a particular profession, *per se*. A number of barriers exist when attempting to use outcomes measurement to demonstrate the value of occupational therapy services. Although outcomes databases have been successfully used to document the quality of interdisciplinary programs, they have had limited ability to explain the effects of an individual service. Because clients in rehabilitation receive multiple services, it is difficult to assign “credit” for client outcomes to any particular service.

The committee noted that a limitation with currently available outcomes database systems is that they do not adequately capture data that describe the intervention process (i.e., gather data on the specifics of intervention and services). Currently, the profession has not defined what key process measures (e.g., the goals of the client, the specific modalities or interventions) should be collected. Without a measure of process as it relates to occupational therapy service provision, it seems unlikely that an outcomes database can provide information that would demonstrate the value of occupational therapy.

Next steps

- As this project moves into Phase II, it appears that clarification of the specific goals for developing an outcomes database is needed. This clarification of the goals will enable Phase II to provide AOTA with guidance that will contribute to growth in the profession and optimal services to our consumers.

- The task force believes that a system of value to the profession and consumers would collect process data (variables about occupational therapy services) that can be related to the outcomes data. With the development of a measure of occupational therapy services or a taxonomy of occupational therapy goals, these process variables can be included within the database, which would allow for analysis of the relationship between occupational services and outcomes achieved.

Should AOTA develop an outcomes database to be managed and maintained by National Office?

Recommendation

The task force recommends that AOTA not develop its own system for outcomes database.

Rationale

The task force comprised experts in outcomes and members who were very familiar with the resources required to mount and administer an outcomes database. During our meeting AM-PAC, FOTO, NOMS, and UDS representatives presented their experiences in developing and administering major outcomes databases. Database management requires extensive financial resources and high level technical expertise. Personnel are needed to obtain and track data collection and to continually problem solve on the user end. The huge amount of data needs to be checked, cleaned and carefully analyzed. Information about each of the outcomes databases was presented to the task force and is summarized in Appendix B.

The presentation by Dennis Hart on the FOTO and the phone conversation with Kathleen Conboy of UDS revealed the extensive resources required to develop and administer an outcomes database. UDS currently has 63 employees. Rob Mullen revealed that ASHA invested approximately two million dollars in the first three years of NOMS development. Although an occupational therapy database may not be of a comparable scale, the number of personnel who staff the existing systems does suggest what resources are needed.

Next Steps

- The task force believes that a database to track occupational therapy outcomes can be accomplished by partnering with one of the existing organizations. A first question to be clarified is what exactly AOTA hopes to achieve through an investment in systematic outcome measurement/reporting. With a clear concept of our goals, a request for proposals could be used to invite existing organizations to partner with us.
- We suggest that National Office begin by developing a request for proposals that is sent to targeted groups and made available to the public. The RFP is described in other sections of this report. Targeted organizations to solicit include FOTO, Inc., and AM-PAC. Dennis Hart of FOTO indicated that his company would be open to expanding their system to accommodate occupational therapy tools. Wendy Coster, co-author of the AM-PAC, indicated that she and her colleagues

may be willing to discuss future growth of their tool in ways that may accommodate AOTA's interests.

What strategies can be used to systematically gather and analyze outcomes data regarding occupational therapy services?

Recommendation

AOTA should develop and distribute a request for proposals that would solicit proposals to develop outcomes database systems that would measure the outcomes of greatest relevance to occupational therapy. They should solicit proposals from existing outcomes database organizations and also widely disseminate the request to all potential organizations.

Rationale

With the assistance of our task force, AOTA should develop a request for proposals that would solicit organizations to develop proposals for methods of collecting and analyzing outcomes of occupational therapy services. After defining the specific goals for such a system, entrepreneurial organizations can create innovative ways to collect data measuring occupational therapy outcomes. The system should also include assessment of quality indicators. Quality indicators (e.g., the percentage of clients who received a falls risk assessment, percentage who received home instructions, client satisfaction with services, client's perception of improvement) should be included in the database. Such a system would have a user-friendly interface with both the client and the clinician. This system would assess both process data (i.e., screening and evaluation, monitoring/intervention) and outcomes data. The outcomes measurement tools utilized would be of high reliability and validity.

Organizations to target would be CRECare (i.e., AM-PAC) and FOTO, Inc. FOTO is primarily used in outpatient physical therapy or orthopedic clinics; however, Dennis Hart expressed willingness to work with AOTA by adding to the current system. FOTO has created a system that can easily be modified and scales can be added. It appears to have more flexibility than UDS and the administrators are interested in partnering. In addition, Dr. Hart expressed willingness to make the FOTO database available to occupational therapy researchers, enhancing the scope of research that could be conducted.

Specific next steps

- National Office should work with the task force to develop a request for proposals to develop an outcomes database.
- The goal of the request for proposals is to find the most creative and cost effective solution for developing an outcomes database that would provide information about occupational therapy services in physical rehabilitation settings, with a goal of expanding the system to other types of occupational therapy services in the future.
- Proposals for an AOTA supported outcomes database should include description of how: 1) AOTA's short and long term goals will be met by the outcomes database, 2) universal access will be assured, 3) the database measures will be or

are well validated, 4) the measures must clearly reflect the domain of occupational therapy services (e.g., use Practice Framework), and 5) the database will include quality indicators helpful to improving practice.

Who should AOTA partner with in developing outcomes instruments and data collection systems?

Recommendations

Given the national interest in measuring and tracking outcomes, AOTA should align its efforts with the major organizations and agencies (e.g., CMS and National Institutes of Health [NIH]) invested in outcomes measurement (See background information in Appendix C).

Rationale

The committee recognized that many occupational therapists practice in environments that already make significant commitments of outcomes data collection. The Centers for Medicare and Medicaid, JCAHO, CARF, and IDEA all require that occupational therapists collect and report outcomes data. Occupational therapy scholars are important participants in a number of these federal and industry efforts. Dr. Mallinson is principal investigator on a subcontract to Research Triangle Institute (RTI) to develop a unified post-acute care instrument and also a co-investigator on a subcontract to RTI in the CMS post acute care demonstration project. She is currently working with other researchers to identify or create items for a uniform assessment that will evaluate patient severity across post-acute care settings, examine variance in resource utilization, and describe patient outcomes. This uniform tool will be used to guide the development of a site-neutral post-acute payment system. Part of this demonstration project will involve development of a resource utilization tool. However, it is unclear that this would be adequate for addressing the committees concerns for collection of process measures. Dr. Velozo has coordinated some of his instrument development with Medicare and FOTO. Dr. Wendy Coster is a co-author of the AM-PAC which is recommended as an outcomes instrument of choice for Medicare outpatient services. Dr. Jin-Shei Lai is a lead statistician with the NIH PROMIS project. Dr. Winnie Dunn is a member of the NIH steering committee for Assessment of Neurological and Behavioral Health.

The task force believes that AOTA and the occupational therapy profession are ahead of many other professions in collaborating with federal agencies to establish functional outcomes measures. We should continue to build on these efforts by helping to develop measures that will be sensitive to the progress made through occupational therapy services. AOTA should facilitate and encourage a leadership role of occupational therapy scholars in helping federal agencies to identify and create functional outcomes measures.

Next Steps

- National office should encourage occupational therapy scholars to become more educated on the NIH Roadmap-related projects related to pediatrics, behavioral and neurological measures (e.g., NIH Toolbox, NeuroQoL and NIH PROMIS)

- and possible ways to contribute to these efforts. Once development is complete, occupational therapy researchers receiving federal research dollars will need to access and use these tools as they design new research projects. It seems likely that the scales from the NIH Toolbox will be required for future funding of NIH funded projects. Therefore, occupational therapy should consider how these instruments could be utilized to address questions of concern to the profession.
- National office should continue to promote the role of occupational therapists in development of CMS outcome measures. They can circulate CMS requests for proposals or contract opportunities to occupational therapy researchers. They can submit names of occupational therapy outcome researchers and clinical specialists for appropriate advisory committees.

What strategies should AOTA use to improve practitioners' understanding and use of outcome measures?

Recommendation

Once an outcomes database system is in place or a consensus on best practice alternatives to measuring outcomes has been reached, AOTA should promote practitioners' competence in administering outcome measures and interpreting/applying outcomes data.

Rationale

A potential barrier to the widespread implementation of an outcomes database identified by a number of task force members was practitioners' limited understanding about the rationale for using outcomes measures with known reliability and validity and interpreting outcomes database reports. There was concern that time spent collecting outcome and process measures may be viewed as time taken away from intervention. Because outcome measures do not generally help intervention planning, many practitioners may not prioritize outcome measurement. This might be of concern to the extent that data for submission to an AOTA database are collected in addition to those already mandated in a practice area. In addition, capturing data at the time of discharge may not be possible in instances when discharge occurs within a rapid timeframe. Outcomes measurement may not have priority at the time of discharge when time is spent in providing instructions and referrals for services.

Occupational therapy practitioners need higher skill levels in interpreting reports of outcomes data and in applying data to their practice. They need high competence in making decisions about what standard measures to use and how to interpret/apply the results.

Specific Next Steps

- This report should be shared with the Model Curriculum task force to produce a collaborative effort in educating about outcome measures.
- Competencies in using outcome measures and applying outcomes data should be considered as an educational goal for the Model Curriculum.
- The program directors should be targeted, requesting their support for expanding the curriculum related to outcomes measures.

- Other ways to educate practitioners on best practices in using outcome measures include a self study in OT Practice and conference presentation. A presentation at the Program Directors meeting can help to establish increased content in the professional curriculum.
- Task force members should write an article for “The Issue Is” or for OT Practice on outcomes databases, explaining what data are typically collected, challenges in maintaining huge amounts of data, challenges in analyzing the data, what they can and can not do, and examples of how a clinic or therapist can use outcomes reports. Use of outcome measures could be a topic for all of the Special Interest Sections to explore and publish about in their newsletters. SISs can also help to identify ways to educate the membership about using outcome measures.
- Another information piece for task force members or AOTA staff to write for OT Practice could identify tools that are available and how these should be used, what information they provide, and how they meet the Transmittal 63 requirement.

APPENDIX A

OCCUPATIONAL THERAPY PRACTICE FRAMEWORK

AREAS OF OCCUPATION

Table 1. Areas of Occupation

Various kinds of life activities in which people engage, including ADL, IADL, education, work, play, leisure, and social participation.

□ **ACTIVITIES OF DAILY LIVING (ADL)**

Activities that are oriented toward taking care of one's own body (adapted from Rogers & Holm, 1994, pp. 181–202)—also called basic activities of daily living (BADL) or personal activities of daily living (PADL).

- **Bathing, showering**—Obtaining and using supplies; soaping, rinsing, and drying body parts; maintaining bathing position; and transferring to and from bathing positions.
- **Bowel and bladder management**—Includes complete intentional control of bowel movements and urinary bladder and, if necessary, use of equipment or agents for bladder control (Uniform Data System for Medical Rehabilitation [UDSMR], 1996, pp. III–20, III–24).
- **Dressing**—Selecting clothing and accessories appropriate to time of day, weather, and occasion; obtaining clothing from storage area; dressing and undressing in a sequential fashion; fastening and adjusting clothing and shoes; and applying and removing personal devices, prostheses, or orthoses.
- **Eating**—“The ability to keep and manipulate food/fluid in the mouth and swallow it (O’Sullivan, 1995, p. 191)” (AOTA, 2000, p. 629).
- **Feeding**—“The process of [setting up, arranging, and] bringing food [fluids] from the plate or cup to the mouth (O’Sullivan, 1995, p. 191)” (AOTA, 2000, p. 629).
- **Functional mobility**—Moving from one position or place to another (during performance of everyday activities), such as in-bed mobility, wheelchair mobility, transfers (wheelchair, bed, car, tub, toilet, tub/shower, chair, floor). Performing functional ambulation and transporting objects.
- **Personal device care**—Using, cleaning, and maintaining personal care items, such as hearing aids, contact lenses, glasses, orthotics, prosthetics, adaptive equipment, and contraceptive and sexual devices.
- **Personal hygiene and grooming**—Obtaining and using supplies; removing body hair (use of razors, tweezers, lotions, etc.); applying and removing cosmetics; washing, drying, combing, styling, brushing, and trimming hair; caring for nails (hands and feet); caring for skin, ears, eyes, and nose; applying deodorant; cleaning mouth; brushing and flossing teeth; or removing, cleaning, and reinserting dental orthotics and prosthetics.
- **Sexual activity**—Engagement in activities that result in sexual satisfaction.
- **Sleep/rest**—A period of inactivity in which one may or may not suspend consciousness.
- **Toilet hygiene**—Obtaining and using supplies; clothing management; maintaining toileting position; transferring to and from toileting position; cleaning body; and caring for menstrual and continence needs (including catheters, colostomies, and suppository management).

□ INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADL)

Activities that are oriented toward interacting with the environment and that are often complex—generally optional in nature (i.e., may be delegated to another) (adapted from Rogers & Holm, 1994, pp. 181–202).

- **Care of others (including selecting and supervising caregivers)**—Arranging, supervising, or providing the care for others.
- **Care of pets**—Arranging, supervising, or providing the care for pets and service animals.
- **Child rearing**—Providing the care and supervision to support the developmental needs of a child.
- **Communication device use**—Using equipment or systems such as writing equipment, telephones, typewriters, computers, communication boards, call lights, emergency systems, Braille writers, telecommunication devices for the deaf, and augmentative communication systems to send and receive information.
- **Community mobility**—Moving self in the community and using public or private transportation, such as driving, or accessing buses, taxi cabs, or other public transportation systems.
- **Financial management**—Using fiscal resources, including alternate methods of financial transaction and planning and using finances with long-term and short-term goals.
- **Health management and maintenance**—Developing, managing, and maintaining routines for health and wellness promotion, such as physical fitness, nutrition, decreasing health risk behaviors, and medication routines.
- **Home establishment and management**—Obtaining and maintaining personal and household possessions and environment (e.g., home, yard, garden, appliances, vehicles), including maintaining and repairing personal possessions (clothing and household items) and knowing how to seek help or whom to contact.
- **Meal preparation and cleanup**—Planning, preparing, serving well-balanced, nutritional meals and cleaning up food and utensils after meals.
- **Safety procedures and emergency responses**—Knowing and performing preventive procedures to maintain a safe environment as well as recognizing sudden, unexpected hazardous situations and initiating emergency action to reduce the threat to health and safety.
- **Shopping**—Preparing shopping lists (grocery and other); selecting and purchasing items; selecting method of payment; and completing money transactions.

□ EDUCATION

Includes activities needed for being a student and participating in a learning environment.

- **Formal educational participation**—Including the categories of academic (e.g., math, reading, working on a degree), nonacademic (e.g., recess, lunchroom, hallway), extracurricular (e.g., sports, band, cheerleading, dances), and vocational (prevocational and vocational) participation.
- **Exploration of informal personal educational needs or interests (beyond formal education)**—Identifying topics and methods for obtaining topic-related information or skills.
- **Informal personal education participation**—Participating in classes, programs, and activities that provide instruction/training in identified areas of interest.

□ WORK

Includes activities needed for engaging in remunerative employment or volunteer activities (Mosey, 1996, p. 341).

- **Employment interests and pursuits**—Identifying and selecting work opportunities based on personal assets, limitations, likes, and dislikes relative to work (adapted from Mosey, 1996, p. 342).

- **Employment seeking and acquisition**—Identifying job opportunities, completing and submitting appropriate application materials, preparing for interviews, participating in interviews and following up afterward, discussing job benefits, and finalizing negotiations.
- **Job performance**—Including work habits, for example, attendance, punctuality, appropriate relationships with coworkers and supervisors, completion of assigned work, and compliance with the norms of the work setting (adapted from Mosey, 1996, p. 342).
- **Retirement preparation and adjustment**—Determining aptitudes, developing interests and skills, and selecting appropriate avocational pursuits.
- **Volunteer exploration**—Determining community causes, organizations, or opportunities for unpaid “work” in relationship to personal skills, interests, location, and time available.
- **Volunteer participation**—Performing unpaid “work” activities for the benefit of identified selected causes, organizations, or facilities.

□ **PLAY**

“Any spontaneous or organized activity that provides enjoyment, entertainment, amusement, or diversion” (Parham & Fazio, 1997, p. 252).

- **Play exploration**—Identifying appropriate play activities, which can include exploration play, practice play, pretend play, games with rules, constructive play, and symbolic play (adapted from Bergen, 1988, pp. 64–65).
- **Play participation**—Participating in play; maintaining a balance of play with other areas of occupation; and obtaining, using, and maintaining, toys, equipment, and supplies appropriately.

□ **LEISURE**

“A nonobligatory activity that is intrinsically motivated and engaged in during discretionary time, that is, time not committed to obligatory occupations such as work, self-care, or sleep” (Parham & Fazio, 1997, p. 250).

- **Leisure exploration**—Identifying interests, skills, opportunities, and appropriate leisure activities.
- **Leisure participation**—Planning and participating in appropriate leisure activities; maintaining a balance of leisure activities with other areas of occupation; and obtaining, using, and maintaining equipment and supplies as appropriate.

□ **SOCIAL PARTICIPATION**

Activities associated with organized patterns of behavior that are characteristic and expected of an individual or an individual interacting with others within a given social system (adapted from Mosey, 1996, p. 340).

- **Community**—Activities that result in successful interaction at the community level (i.e., neighborhood, organizations, work, school).
- **Family**—“[Activities that result in] successful interaction in specific required and/or desired familial roles” (Mosey, 1996, p. 340).
- **Peer, friend**—Activities at different levels of intimacy, including engaging in desired sexual activity.

American Occupational Therapy Association. (2002). Occupational therapy practice framework: Domain and process. *American Journal of Occupational Therapy*, 56, 620–621.

APPENDIX B

BACKGROUND TO RELEVANT OUTCOMES MEASURES

AND OUTCOMES DATABASES FOR PHYSICAL DISABILITY/ REHABILITATION

The task force members examined and discussed the outcome measures identified in the CMS Transmittal 63 and other widely used physical function scales. As described below, we discussed the assets and limitations of current outcome measures and debated how well the instruments measured occupational therapy services.

AM-PAC: Activity Measure for Post Acute Care

The AM-PAC is an outcome measure developed by Stephen Haley, PhD, PT, Alan Jette, PhD, PT and Wendy Coster, PhD, OT with their colleagues from Boston University. This team selected and created functional items that focused on the “activity level” of the ICF. They used some items from the FIM, MDS, OASIS and SF-36, and wrote new items. An important goal was to develop items of discrete daily tasks that would be responsive to client progress. The AM-PAC has three sections, Physical and Movement, Personal Care and Instrumental, and Applied Cognitive. Both the Personal Care and Instrumental Activities and the Applied Cognitive Activities section have direct relationship to occupational therapy and were developed by Dr. Coster with OT services in mind. These items measure most (all but “sleep” and “sexual function”) of the areas of occupation listed in the OT Practice Framework; therefore the fit to occupational therapy services appears to be good.

A particular advantage of the tool is the Applied Cognitive scale that measures skills not well represented on other outcome measures such as the FIM or FOTO. The scales were finalized using factor analysis and Rasch analysis to select and order the items. Short and long paper forms and computer forms have been developed. The AM-PAC is currently available using computerized adapted testing (CAT) and therefore takes minimal time, while yielding extensive information about the client’s function.

The AM-PAC has not yet been widely used outside the research samples used for instrument development. Wide use is likely to follow from the listing of AM-PAC on Transmittal 63. Currently, the Healthsouth system is considering adopting the AM-PAC throughout its facilities. Of the instruments listed in the transmittal, it may be the best measure of outcomes of occupational therapy services.

FOTO: Focus on Therapeutic Outcomes, Inc

The FOTO database was initially developed in 1993 as a data collection and benchmark reporting service through a grant by 6 national rehabilitation companies in existence at that time. Alan Jette designed the data collection process and manage the database and Dennis Hart was hired as Director Research and Consulting in 1997. Dr. Hart presented the FOTO to the task force, sharing the origin and growth of the database. Based on information from their website, the FOTO has been used in 33 research projects. Continued growth in use of the system is expected because FOTO was listed in Transmittal 63. The FOTO database houses multiple instruments. Originally, the tool focused on orthopedic diagnoses, but the system has expanded to neurologic and medical diagnoses. The database contains data for almost two million patients, with one million complete episodes. Only 7% of the episodes were occupational therapy services. Most of the data is from outpatient clinics, private practices, and outpatient rehabilitation facilities.

FOTO provides a self report computer based entry system that utilized computer adapted technology that collects very little identifying data and has a minimal set of required questions that all patients must complete. Once the client identifies his/her problem, specific scales become available and can be completed, depending on the program's protocol. It would appear that the client would need some guidance in completing the FOTO scales. Currently most of the scales within FOTO relate to physical therapy services; however, Dr. Hart is interested in expanding the system and collaborating with AOTA. The system makes available a few ADL scales, one upper extremity scale, the DASH (Disabilities of the Arm, Shoulder, and Hand), and the University of Florida Upper Extremity Scale (Veloze). The advantage of the FOTO scale is that systems for analyzing and reporting the data are in place. Dr. Hart appears interested in both research and clinical applications. The disadvantage of FOTO is that it appears to have very limited OT use at this time, and practitioners should be asked about their experience and perceptions of the system, based on their clinical use. Although Dr. Hart assured the task force that clients' literacy and computer skills and the availability of computers in the clinic were not issues, the task force felt that beyond the orthopedic outpatient population, these would be issues.

UDS: Uniform Data Set: FIM and LIFEware

UDS has the largest database system for functional rehabilitation outcomes. The task force held a phone conference with Kathleen Conboy of UDS, who was joined by Carl Granger, MD, Director and Sam Markello, PhD, Associate Director. This system began in 1986, and is therefore the oldest outcomes database in existence today. The system currently is used by 1,400 facilities. It consists of the FIM, WeeFIM, LIFEware, Alpha FIM Analyzer, and UDS-PRO. Although FIM is completed by therapists or physicians, the LIFEware system can be patient self report. FIM is widely used by occupational therapists in inpatient settings, but does not particularly measure OT outcomes. Problems with the FIM as discussed by the Task Force are its brevity, a ceiling effect, limited cognitive items, and lack of sensitivity. The LIFEware system has a large item pool and

is appropriate to post acute care. The system has items for ADL, IADL, pain, and quality of life. Task force members did not discuss the assets and limitation of LIFEware. One issue in working with UDS is that the company has become highly proprietary and has traditionally not collaborated with other systems. The company has no interest in changing or adapting their measures because the system's value is based on its historic data. Any changes to the original scales would devalue the data that they have collected and harm the longitudinal tracking of its users. Although UDS has the oldest and largest data set, the value of this data set for improving practice or assuring quality appears to be minimal.

NOMS: National Outcomes Measurement System

Rob Mullen, Director, National Center for Evidence-Based Practice in Communication Disorders, ASHA presented the NOMS to the task force. ASHA developed NOMS about 10 years ago. There was a need to report information on changes in functional communication status to payers for adults in health care settings and existing measures were not adequate. The development process was quite extensive and costly (about 2 million in the first 2-3 years). The items (Functional Communication Measures (FCM) were developed by a panel and the items were similar in structure (7 levels were defined to be consistent with the FIM). The items cross areas of Speech and Language Pathology (SLP) scope of practice including swallowing, articulation, attention, memory, and language. The goal was to make a tool that an SLP in any area of post acute care could use. Reliability was established by mailing case studies and the NOMS scale to members. The reliability studies were lengthy and resulted in significant revision of certain items. Currently, the scales can be accessed on line through the ASHA website or paper forms are available. In addition to the adult version, a version for school system practice has been developed. There is no fee to participate in NOMS.

Until recently, the NOMS has had very limited use; only about 1,200 SLPs have participated. Because NOMS was listed in Transmittal 63, interest in the tool has greatly increased and ASHA has hired additional employees to assist with NOMS data management.

OPTIMAL: Outpatient Physical Therapy Improvement in Movement Assessment Log: APTA

The OPTIMAL was briefly discussed in the task force meeting. It is the self report outcomes measure developed by APTA to assess ability to perform mobility actions in an adult outpatient population. The items are physical skills such as jumping, climbing stairs that are rated according to difficulty in lower extremity mobility, upper extremity mobility or trunk mobility. OPTIMAL was developed by APTA researchers in collaboration with researchers from the University of North Carolina at Chapel Hill and Duke University (one publication on OPTIMAL was retrieved). APTA has been working with Cedaron Medical, Inc., a database management company, for the past several years to develop a computerized patient medical record (APTA Connect). There are several mandated fields including OPTIMAL. Facilities and practitioners contract with Cedaron

to manage the data, analyze the results, and provide reports. This effort will integrate the patient record with the outcome data, so that it can all be kept in one online record. Although the ICF was used in developing the OPTIMAL, the items clearly are motor skills rather than functional activities.

The task force believed that AOTA would need to contract with a company such as Cedaron Medical to establish an outcomes database. Although ASHA hired staff to develop and run NOMS, the cost was significant and at the end of 10 years, the system is only now getting off the ground. In both organizations, the outcomes measure has not been well used by the membership, although usage should increase with Transmittal 63.

COPM: Canadian Occupational Performance Measure

The COPM is an interview tool used at the time of intervention planning to identify the client's goals in the area of ADL, leisure, and work. The client rates his performance and the importance of the problems for specific activities within these areas. The COPM has been used in close to 100 studies. The instrument has demonstrated high sensitivity to progress on occupational therapy goals. It has resulted in high positive effects in many, if not most, of the studies in which it has been used. The task force considered the advantages and disadvantages of using the COPM as an outcomes measure. Mary Law, the author, was interviewed prior to the task force meeting, and indicated that the COPM was a robust, valid tool. The problem with its use as an outcome measure is that combining data across clients and therapists becomes problematic because of the potential disparity between the complexity and difficulty of goals that the client would select. Combining data from very easy (e.g., zipping pants) and very difficult outcomes (e.g., returning to work) appears to be problematic and perhaps an issue that can not be resolved.

Task force members suggested recognized the value of using of the COPM to plan individual interventions and goal achievement, but that combining data across settings and therapists may be difficult. An additional factor to consider in wide spread use is that the time required to complete the tool is lengthy.

Quality Assurance Instruments and Programs

Two accreditation agencies, CARF and The American Nurses Credentialing Center (ANCC), have developed methods to demonstrate quality in health care services. These quality assurance programs relate to the AOTA Centennial Vision Strategic Direction under which we are working, demonstrating and articulating our value of individuals, organization and community. Two instruments that were examined by the task force appear to be excellent models for measuring and documenting consumer satisfaction, meeting this goal in the Centennial Vision.

uSPEQ: CARF: Commission on Accreditation of Rehabilitation Facilities

The Task Force held a phone interview with Chris MacDonell, Managing Director, Medical Rehabilitation and International Aging Services, CARF to explain a new tool that measures consumer satisfaction via a web-based self report. This newly developed tool, uSPEQ, gathers opinions on participants' experiences with a program, service, or provider. In turn, the provider uses the reported information to improve the quality of its programs and services. The system can be tailored to the individual facility. CARF accredited programs will not be required to use uSPEQ; however, the system will provide evidence of quality assurance in the accreditation process.

Results of uSPEQ are reported as summary data and are confidential. If requested, they can be tailored to focus on occupational therapy services. The items appeared to be ones that would result in high ratings for occupational therapists (e.g., individualizing treatment, listening). The tool has not yet been widely adopted; however, appears to be a useful, well developed tool.

Magnet Programs: The American Nurses Credentialing Center (ANCC)

The Magnet Recognition Program was developed by the ANCC, a for-profit subsidiary of the American Nurses Association, to recognize health care organizations that demonstrate nursing excellence. The goal is to provide consumers with a benchmark to measure the quality of care that they can expect to receive in a hospital. Rigorous standards must be met by the nursing staff in order to receive this recognition. In particular, to achieve and maintain Magnet Status, hospitals must collect outcomes and quality data and also demonstrate significant participation of nurses in research projects. Tying data collection and research to the receipt of Magnet status has increased the participation of nurses in these areas. The program has grown considerably since its inception in 1990. The recognition is well respected and is viewed as a credible measure of quality in nursing care.

APPENDIX C

FEDERAL AGENCIES PROMOTING USE OF OUTCOMES MEASURES AND THE ROLE OF OCCUPATIONAL THERAPY SCHOLARS

Centers for Medicare and Medicaid Services (CMS) Medicare

Transmittal 63 contained increased documentation requirements and recommended, but did not require, the use of one of four specified tools to measure outcomes. The transmittal has caused concern among AOTA members because they do not see occupational therapy reflected in the tools that were specifically identified. National Office has made a number of communication attempts on the website and through newsletters to dispel fears that occupational therapy services will not be reimbursed because practitioners are not using the measures listed. In discussions with CMS, it clearly is not their intent to single out a professional group; however, they seem quite intent in maintaining a requirement for outcome documentation with appropriate measures. CMS is open to AOTA or other groups identifying additional appropriate outcome measures; minimally, proposed tools should have solid evidence of reliability and validity.

CMS Post Acute Care Demonstration Project for Part A

Trudy Mallinson, PhD, OTR/L, who is a researcher at the Rehabilitation Institute of Chicago and adjunct faculty at Northwestern University, is principal investigator on a subcontract from Research Triangle International (RTI), the primary contractor for this project. As part of the Deficit Reduction Act of 2005, Congress has authorized funds for this project. The project aim is to develop a uniform, post acute assessment. Data collected with this instrument, as part of a 3-year demonstration project, beginning January 2008, will be used to establish a setting-neutral payment system for post-acute care. The purpose of the tool is to be able to explain service use (i.e., which setting(s) patients used in an episode of care), resource utilization, and outcomes in patients receiving post-acute care. The primary purpose is to guide payment policy and minimize any incentives to treat patients of the same severity one setting of care over another. Data for tool development will be collected in acute care hospitals (at discharge only), and at admission and discharge in long term care hospitals, inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies.

The CMS uniform post acute measure will have a minimal set of core items, to which additional items can be added when a problem is indicated in one or more of the core items. The tool will likely be completed by the most appropriate care provider(s).

NIH Toolbox, NIH PROMIS, NeuroQoL

NIH is currently investing in a series of item banking projects, designed to collect a range of patient outcomes—these include PROMIS, NeuroQoL, and the NIH Tool Box. These systems are new and evolving. It is expected that use of these item pools will be strongly encouraged in future NIH studies. The item bank that may have good alignment with occupational therapy outcomes is NeuroQoL, which is a measure of quality of life in client with neurological diagnoses although it is expected that PROMIS (self-reported patient outcomes, including activity and participation items) and the NIH Tool Box (more focused on body structure and function) will also be relevant to the field. In March 2007 NIH posted a request for proposals to develop assessments of neurological and behavioral function as part of the NIH Toolbox.

NIH PROMIS (Patient-Reported Outcomes Measurement Information System) aims to revolutionize the way patient-reported outcome tools are selected and employed in clinical research and practice evaluation. It will also establish a national resource for accurate and efficient measurement of patient-reported symptoms and other health outcomes in clinical practice (www.nihpromis.org). As part of the NIH Roadmap, NIH funded six primary research sites and a statistical coordinating center as the PROMIS network. PROMIS will equate existing measures of patient-reported outcomes, such as pain and fatigue, and aspects of health-related quality of life across a wide variety of chronic diseases and conditions. The goal is to create efficient, consistent, well-validated approaches to measuring these and other functional outcomes. The new tools will measure day-to-day functioning of clients with chronic diseases such as arthritis, multiple sclerosis, and asthma, as well as chronic pain conditions. The goal of the PROMIS initiative is to develop a set of publicly available computerized adaptive tests and short forms for the clinical research community.

Dr. Jin-Shei Lai, an occupational therapist, has a major role in data analysis in the NIH PROMIS project. Dr. Winnie Dunn is on the Steering committee for the NIH Assessment of Neurological and Behavioral Health. Greater involvement of occupational therapy scholars in this initiative should be explored. Additional information about the NIH functional outcome tools should be obtained and disseminated to the profession.