This paper addresses issues in the definition of traditionally underserved persons who are deaf. It notes that these people have traditionally been labeled as low functioning, low achieving, multiply handicapped, minimal language skilled, and disadvantaged. A new definition, developed by the Northern Illinois University Research and Training Center on Traditionally Underserved Persons Who Are Deaf, emphasizes placing responsibility for the less-than-optimum functioning on the service delivery system rather than on the individual. Definition development involved identifying characteristics of the population and analyzing responses to a survey of 810 deaf educators and deafness rehabilitation counselors. Respondents ranked the following critical characteristics for defining this population: (1) communication skills, (2) independent living skills, (3) social skills, (4) vocational skills, and (5) academic achievement. A rating scale utilizing these factors was developed and is included. (DB)
Defining Traditionally Underserved Persons Who Are Deaf

A great deal of attention is currently focused on the rehabilitation and independent living needs of traditionally underserved persons who are deaf. These are individuals who have historically been labeled as low-functioning, low-achieving, lower achieving, multiply handicapped, minimal language skilled, and disadvantaged deaf. We use the term "traditionally underserved" as a preferred way to describe these individuals in that it places the responsibility for less-than-optimum functioning on the service delivery system rather than on the individual.

Evidence for increased attention to the needs of traditionally underserved persons who are deaf is seen throughout the field of deafness rehabilitation. For example, since 1989 the United States Department of Education has funded six "demonstration projects" that focus on comprehensive rehabilitation services to this population. These projects have received funding that totals nearly $6,000,000. In addition, in September 1990, the Northern Illinois University Research and Training Center on Traditionally Underserved Persons Who Are Deaf (NIU-RTC) was established. The center, funded by a five-year grant from NIDRR, conducts a programmatic series of research, resource development, and training/technical assistance projects that are aimed at enhancing the employment, independence, and quality of life outcomes for this population. Finally, the Rehabilitation Act Amendments of 1992 called for funding of comprehensive rehabilitation centers and supported employment projects that focused on traditionally underserved individuals who are deaf.

Because of the heightened attention currently given to this population, it is important to define those characteristics and behaviors that define someone as being "traditionally underserved." Without a clearly delineated, consensually agreed upon definition, it is difficult, if not impossible, to conduct meaningful research, argue for resource allocation, assess service impact, or develop appropriate assessment and intervention strategies. Responding to priorities established by NIDRR, the NIU-RTC embarked on a study to develop a consensually agreed upon definition.

Before describing the strategies used to develop this definition and the subsequent findings, it is important to note that these individuals comprise a heterogeneous population with a wide range of skills, knowledge, and abilities. In developing a definition to describe a group, there will always be a loss of information regarding the individual. On the other hand, for purposes of large-scale research, policy development, project administration, etc., it is critical to be able to describe general population characteristics. Furthermore, the development and presentation of a population definition sets the stage for further refinement and individualization. The initial definition described in this report is currently being used to determine prevalence rates and provide a foundation upon which to base future work. The definition will also be used to help evaluate the impact of various curricula and intervention approaches developed by this center.

Strategies. There were two primary strategies used to develop this definition. First, characteristics that seemed to define an individual as being traditionally underserved were established. Following a thorough review of the literature and feedback from the center's regional affiliates and National Advisory Council, six basic characteristics emerged. These characteristics included communication ability, vocational skills, independent living skills, academic achievement, and social skills. For increased specificity, each factor was also divided into discrete skill levels ranging from minimal competence to full proficiency.

Second, a survey was developed to obtain respondents' perceptions regarding which characteristic was seen as most critical when identifying someone as traditionally underserved. The survey also sought to determine which particular skill levels within each characteristic were seen as most descriptive of these individuals.

The survey was sent to 896 deaf educators and 497 deafness rehabilitation counselors for their opinions. These individuals were chosen because of their frequent interactions and professional work with a wide variety of individuals who are deaf ranging from those with severe and multiple disabilities to those with college educations.

Results Obtained. Over 50% (n=460) of the educators and 70% (n=350) of the rehabilitation professionals responded to the survey. Both groups initially rank ordered the characteristics (i.e., communication skills, vocational skills, independent living skills, academic achievement, and social skills) according to how they were perceived as contributing to the status of "traditionally underserved." As such, the characteristic deemed most critical was ranked 1, the characteristic deemed the second most critical was ranked 2, and so on. Rehabilitation professionals and deaf educators showed remarkable agreement in their perceptions of what characterizes an individual as being traditionally underserved. As shown in Table 1, both groups clearly identified communication deficits as the hallmark characteristic of this population. Agreement between groups was significant as determined by chi square statistical analyses.

Following a rank ordering of characteristics, rehabilitation professionals and deaf educators identified the specific levels of functioning within each characteristic that they
Table 1

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rehabilitation (n=350)</th>
<th>Educators (n=450)</th>
<th>Overall (n=810)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills</td>
<td>1.92</td>
<td>1.85</td>
<td>1.88</td>
</tr>
<tr>
<td>Independent Living Skills</td>
<td>2.92</td>
<td>2.92</td>
<td>2.92</td>
</tr>
<tr>
<td>Social Skills</td>
<td>3.04</td>
<td>3.00</td>
<td>3.02</td>
</tr>
<tr>
<td>Vocational Skill</td>
<td>3.38</td>
<td>3.56</td>
<td>3.48</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>3.74</td>
<td>3.67</td>
<td>3.70</td>
</tr>
</tbody>
</table>

\*\(X^2(4) = 272.7909 \ p<.000\) \*\*\(X^2(4) = 272.7909 \ p<.000\) \*\*\*\(X^2(4) = 528.7505 \ p<.000\)

thought were most descriptive of the "typical" traditionally underserved person who is deaf. Survey respondents were asked to rate how descriptive these levels were in terms of their ability to describe a traditionally underserved person who is deaf. The scale was as follows:

1 = not descriptive of a traditionally underserved deaf person.
2 = very unlikely to be used to describe a traditionally underserved deaf person.
3 = somewhat descriptive of a traditionally underserved deaf person.
4 = more likely to be used to describe a traditionally underserved deaf person.
5 = most descriptive of a traditionally underserved deaf person.

Using this scale, survey respondents rated the levels within each factor. For example, within the independent living skills factor, respondents were asked to apply the rating scale to each of the following levels:

- Institutionalized: requires a higher level of supervision and assistance than family is able to provide (e.g., mental retardation).
- Living with family/family-like situation: experiences difficulty carrying out daily living tasks without supervision and guidance of others (e.g., cleaning, cooking).
- Independent with ongoing supervision: able to carry out daily living tasks but occasionally requires prompts and guidance.
- Independent with transitional support: may require initial assistance to obtain housing, utilities, etc.; however, is then able to function independently.
- Independent: able to live independently without assistance.

A visual inspection of the average ratings for each item within characteristics makes it possible to identify cut-off points for classification as traditionally underserved. Cut-off points were indicated by a substantial drop in the size of the average ratings from one level to the next. Interestingly, the ratings across all characteristics showed remarkable consistency. In fact, there were no significant differences between the groups on any of their ratings. Rehabilitation professionals and deaf educators uniformly endorsed ratings indicating that traditionally underserved persons who are deaf display minimal functional skill levels across these six characteristics. An example of this pattern is shown in Figure 1 that depicts ratings related to written communication skills. A summary of the overall ratings is provided in Table 2, which shows the results for all of the characteristics as rated.

Implications and Future Directions. If a deaf individual functions at or below the ability levels described previously, there is no doubt that he or she meets the criteria for categorization as traditionally underserved. A concern arises, however, with those individuals who fit most, but perhaps not all, of these criteria. Should they be considered traditionally underserved? This question has particular relevance for policy makers, administrators, and researchers who need to be able to identify individuals who fit a particular classification.

The NIU-RTC addressed this issue by developing a rating scale. Given that communication deficits were seen as the most significant characteristic of this population, the first requirement in identifying an individual as traditionally underserved is to determine whether he or she exhibits communication skill deficits that limit the ability to convey more than basic information and needs statements. Individuals who possess strong communication skills (i.e., have useable written English skills, above average sign skills, and/or useable speech/speech reading skills) are not to be considered as traditionally underserved.

Assuming an individual exhibits communication skill deficits, the question then becomes what skill levels are exhibited across the remaining four factors (i.e., independent living skills, vocational skills, academic achievement, and social skills)? While an individual may function at a
lower level for any one factor (e.g., holds competitive employment with little or no ongoing assistance), it is the overall level of functioning that is most important when determining a classification of traditionally underserved. Responding to this issue, the rater must make a determination across the remaining four factors as to the individual's level of functioning for each. For an individual to be considered traditionally underserved, the average rating across these factors must be no lower than 3.0. Individuals whose scores are lower than this cut-off would not be classified as traditionally underserved (See Table 3).

The definition and associated rating scale represent the initial steps in our understanding of this population. It is anticipated that these findings will undergo revision as additional work is conducted. Numerous questions remain to be answered including how can the rating scale be used most effectively within a research and/or clinical context? There is also a need to clarify the relative contributions of various risk factors associated with being traditionally underserved. The survey used in this study provided preliminary data regarding this question. Specifically, the respondents were asked to identify factors that contributed to being identified as traditionally underserved (i.e., foreign language environment: non-English), socioeconomic status, minority status, inappropriate diagnoses, lack of interpreters, lack of access to available services, lack of family support, substance abuse, secondary disabilities (e.g., physical, sensory, emotional/behavioral), sexual orientation, inadequate funding and time constraints of available services, lack of appropriate role models, prejudice/discrimination because of deafness, and lack of participation in family and cultural traditions). The factor of sexual orientation was the only one not seen as contributing to the likelihood of being traditionally underserved. Future work will need to address which of these risk factors contribute most to the likelihood that an individual will become traditionally underserved. Investigating these questions will enable the definition to evolve and attain greater clarity and specificity over time.

It is strongly recommended that this definition be used within the field of deafness when describing members of this population. This definition has the value of consensual validation from experienced professionals in the fields of vocational rehabilitation and special education. These "front line" professionals have daily contact with traditionally underserved persons who are deaf. Their collective experience and perspectives lends considerable

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not able to communicate using written English</td>
</tr>
<tr>
<td>2</td>
<td>Very limited written English skills not enough to communicate with others</td>
</tr>
<tr>
<td>3</td>
<td>Fundamental English skills that allow for purely functional conveyance of information</td>
</tr>
<tr>
<td>4</td>
<td>Has usable English skills</td>
</tr>
<tr>
<td>5</td>
<td>Has written English skills to communicate effectively with others</td>
</tr>
</tbody>
</table>

Mean Descriptiveness Ratings
(1 = not descriptive, 5 = very descriptive)
Table 3
Rating Form: Determining Classification as Traditionally Underserved

Instructions: Determine if an individual's communication skill level is at or below the stated definition. If so, complete the form by circling the number that is most descriptive of the individual's skill level in the areas of Vocational, Academic Achievement, Independent Living, and Social Skills. If the average of these ratings is greater than 3, the individual may be classified as Traditionally Underserved Deaf.

Communication Skills
Communication skills for this client are at a level that will, at best, allow for the conveyance of basic needs or information but do not make themselves available for meaningful interpersonal interaction or conversation with another individual.

Vocation Skills
- 5: Unable to obtain and maintain work even in a sheltered workshop
- 4: Able to work within a sheltered, highly supervised setting
- 3: Able to work outside a sheltered workshop, with ongoing support
- 2: Initial assistance required or able to maintain job with assistance
- 1: Able to obtain/maintain job assistance

Academic Achievement
- 5: 0-1 grade level (reading and math)
- 4: 2-3 grade level (reading and math)
- 3: 4-5 grade level (reading and math)
- 2: 6-8 grade level (reading and math)
- 1: High school - college level (reading and math)

Independent Living Skills
- 5: Requires level of supervision/assistance than family is able to provide
- 4: Requires supervision/guidance when carrying out daily living tasks
- 3: Carries out daily living tasks with occasional prompts and guidance
- 2: May need initial assistance; however, able to function independently
- 1: Able to live independently without assistance

Social Skills: aggressive, impulsive, frustration tolerance, establishing social support, emotional control, problem solving skills
- 5: All are areas of concern and pose problems
- 4: Most are areas of concern and pose problems
- 3: Some are areas of concern and pose minimal problems
- 2: Some are areas of concern but do not post a problem
- 1: None are areas of concern and in need of attention

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_weight to the likely accuracy of this definition. Finally, if researchers, service providers, and policy makers continue to use conflicting definitions to refer to this group of individuals, there is little hope for a meaningful advancement of services or a synthesis of knowledge. By building from the same foundation we can more effectively enhance rehabilitation and related services for traditionally underserved persons who are deaf._

References:

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