EXHIBIT AA

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

LEONARD BRIGGS, GEORGE SKINDER, LOUIS MARKHAM, FRANCIS MCGOWAN, ERIC ROLDAN, ROLANDO S. JIMENEZ, AND JENNIFER WARD, on behalf of themselves and all others similarly situated,	)	
Plaintiffs,	)	
v.	)	
MASSACHUSETTS DEPARTMENT OF CORRECTION; CAROL A. MICI, COMMISSIONER OF THE MASSACHUSETTS DEPARTMENT OF CORRECTION; JENNIFER A. GAFFNEY, DEPUTY COMMISSIONER OF CLASSIFICATION, PROGRAMS, AND REENTRY DIVISION; COLETTE M. GOGUEN, SUPERINTENDENT OF MCI-SHIRLEY; STEVEN SILVA, SUPERINTENDENT OF MCI-NORFOLK; LISA MITCHELL, SUPERINTENDENT OF THE MASSACHUSETTS TREATMENT CENTER; ALLISON HALLET, SUPERINTENDENT OF MCI-FRAMINGHAM; AND MASSACHUSETTS PARTNERSHIP FOR CORRECTIONAL HEALTHCARE,	)	Case No. 1:15-cv-40162-GAO
Defendants.	)	

EXPERT REPORT OF DR. JUDY ANNE SHEPARD-KEGL, Ph.D.

August 2, 2019

Contents

I. QUALIFICATIONS

My credentials in terms of degrees and interpreting certifications are listed at Appendix A. I am currently a full professor with tenure in the linguistics department at the University of Southern Maine where I teach and serve as the Coordinator of the American Sign Language (ASL)/English Interpreting Concentration of the linguistic major and the Director of the Signed Language Research Laboratory. My duties include both teaching (linguistics and interpreting) as well as research. My current research is varied, including theoretical syntax of both English and ASL; study of the cognitive processes involved in interpreting; comparative study of the polysynthetic grammars of signed and spoken languages (ASL, Nicaraguan Sign Language, Peruvian Sign Language) and several of the Algonquian languages of Maine and Canada. Most recently, I have also been working on language deprivation and the habilitation of Deaf individuals who are languageless. I am perhaps best known for having discovered the emergence of a signed language in Nicaraguan in the 1980s. I continue to work with that population of over 4000 (as well as 400+ language isolates) in terms of not only language emergence, but grammar and ethnography. My fieldwork expanded about ten years ago to include study of the language and community of Deaf individuals in Peru (focusing on Lima).

I have served as the Principal Investigator or Co-Investigator on numerous grants from the National Science Foundation (NSF), The National Institutes of Health (NIH, NIDCD), and the Department of Defense Advanced Research Projects Agency (ARPA), as well as the Maine and U.S. Departments of Education. These grants included my research on the emergence of Nicaraguan Sign Language; Aphasia; Parkinson disease; ASL syntax; the use of space and movement in ASL; and the development of a multimedia tool for sign language research (SignStream). A grant from the Maine Department of Education funded the first three years of my position and the lab at the University of Southern Maine as I set up the interpreter training program there and trained several cohorts of educational interpreters. A federal subcontract from the U.S. Department of Education funded me to work on the development of the Cued Speech version of the Educational Interpreter Performance Assessment, currently being used nationally to assess Cued Speech Transliterators.

I received my degree in anthropology at Brown University in 1975. At the same time, I received my MA in linguistics with a master's thesis on Slovene-English Bilingualism. From there I continued my studies at the Massachusetts Institute of Technology and received my degree in linguistics and philosophy in 1985, with a dissertation on locative relations in ASL word formation, syntax, and discourse. Later I went on to do senior postdoctoral work at the Center for Molecular and Behavioral

Neuroscience at Rutgers, The State University of New Jersey, in the Cognitive Neuroscience Laboratory.

Before settling at the University of Southern Maine, I held full-time faculty positions at Hampshire College (linguistics), Northeastern University (psychology), Princeton University (psychology and linguistics), Swarthmore College (psychology and linguistics), and Rutgers (neuroscience).

I was first certified as an interpreter in 1978 and currently hold active certifications as a generalist (CSC, CI/CT, NIC-M, NAD-IV, BEI-Master) and as a specialist in education (ED:K-12), legal (SC:L), oral (OTC), medical (CoreCHI), and mental health (QMHI). I have also taught courses in all the areas in which I am certified, except oral transliteration. Starting in graduate school (1977), I have worked regularly as a free-lance interpreter and became an interpreter trainer in 1999. The program I coordinate was the third nationally accredited program in the country and ranks among the best. I still actively work as an interpreter, with a specialization in legal and medical interpreting.

My first experience as an expert witness was for the New Jersey Prosecutor's Office in 1990 in a murder case. Since then I have been involved in over 300 cases. My testimony over the last five years has been provided in Appendix A. My focus is on the language and cultural assessment of Deaf individuals, typically in ADA-related cases. I have provided assessments and written reports for law firms across the country (Maine, Massachusetts, New Jersey, New York, Minnesota, California, Illinois, Florida, Louisiana, and others). I have never advertised my work or sought clients. Information has spread by word of mouth. As a result, I have seldom been asked to serve as an expert for the defense in an ADA case, although I am not unwilling to do so. My conditions are the same. My findings are what they are, independent of what any given case might want. For this reason, cases are generally carefully triaged before referring them to me, often by lawyers who themselves sign and are familiar with my work.

In addition to my academic and professional qualifications, I have lived closely with Deaf people for much of my adult live, both in the U.S. and Nicaragua. My daughter is Deaf and in addition to seeing the life experiences of Deaf people from the vantage point of a researcher and an interpreter, I have watch her experiences negotiating a hearing world as a profoundly Deaf person.

Attached as Appendix A is my complete curriculum vitae, as well as a list of all the cases I have testified in as an expert witness over the past four years.

II. LIST OF ITEMS CONSIDERED IN MAKING THIS ASSESSMENT:

A full list of the items I considered when making this assessment is included as Appendix B.

Note: I was not able to document responses on videotape during my testing. Typically, I enter notes and results in an Excel file during testing with video as backup. Aside from convenience, the only consequence of this is the inability to provide raw evidence of signed and spoken responses made during testing. My coding and recording into Excel is available. Special sheets were made to allow for direct analysis of ASL and speech as it was being produced.

III. OBJECTIVES

My work in this case focuses on the availability of effective communication and access to programs, services, and activities for d/Deaf and hard of hearing prisoners in the Massachusetts Department of Correction (DOC). My first objective is to assess, through evaluations, the communication needs and abilities of the named plaintiffs and what auxiliary aids each plaintiff requires to effectively communicate within DOC. My assessments concern each plaintiff's general language proficiency; use of ASL interpreters; primary and preferred mode of communication; capacities with respect to the use of ASL; capacities in alternative communication modes such as speech, lipreading, reading, and writing in English; and cultural identification. These assessments speak to their communication needs as well as the range of needs and generalizable experience of the population of d/Deaf and hard-of-hearing prisoners in DOC. The second objective is to, based on my experience, evaluations, and review of documentation, address additional visual communication needs such as the need for a visual messaging system and visual alarms to effectively convey emergency notifications to d/Deaf and hard-of-hearing prisoners. I am not a fact witnesses in this case and will not address the veracity of facts concerning what did or did not happen during specific incidents at DOC facilities. In addition to specific language issues, I will address additional visual communication needs such as the need for a visual messaging system and visual alarms to convey emergency information.

I have been retained by the law firm of Wilmer Cutler Pickering Hale and Dorr LLP to work on this case at the rate of $150.00 per hour. In addition to being based on my knowledge and experience, my report is based on: (1) face-to-face meetings with named plaintiffs at MCI-Norfolk, MCI-Framingham, Massachusetts Treatment Center; and NCCI-Gardner; and (2) a review of materials provided to me by plaintiffs' counsel and identified in Appendix B.

IV. HETEROGENEITY IN THE DEAF POPULATION

Let me begin with the most important observation of all: each of the d/Deaf individuals I assess and interview is a unique individual who needs to be viewed as such. The label *d/Deaf* exemplifies this heterogeneity. The word *deaf* with a smaller case "d" is used to indicate the physical condition of hearing loss. This refers to the medical or pathological view of deafness. The person cannot hear. A person who is deaf may or may not sign, may or may not speak, may or may not identify or affiliate with other people who are deaf. The word *Deaf* with an upper case "D" is used to refer to that subset of deaf individuals who identify with Deaf culture and who typically sign ASL. The person identifies as a Deaf person, has ties with the community of Deaf people and feels comfortable in that group, and typically signs ASL.

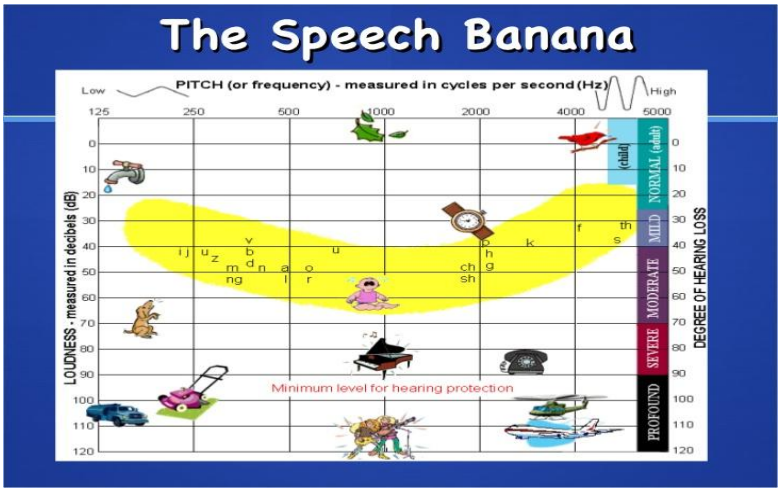
This heterogeneity is the reason that the approach I take to the assessment of clients is the "single case study" approach. I have pulled together a set of tests that allow me look at both how a d/Deaf or hard-of-hearing individual patterns according to certain traits (culture, language in ASL, language in English (across different modalities), cognitive capacity, world knowledge, etc.). Each trait is examined individually and in the context of comparison sets: hearing users of English, culturally Deaf users of English, non-culturally Deaf users of English who are nonetheless deaf, native signing Deaf who are users of ASL and have born into Deaf signing families, etc. The sub-populations of d/Deaf individuals are vast and the degrees of membership within those sub-groups range along scales that are infinitely variable. For this reason, the appropriate accommodations for d/Deaf and hard-of-hearing individuals will also vary person-to-person. Furthermore, the most important people to consult in determining these accommodations are the d/Deaf and hard of hearing individuals themselves.[1]

About 2 to 3 children out of every 1000 are born with a detectable level of hearing loss in one or both ears. Genetic causes account for about 60% of the cases of deafness occurring in infants. There are over 400 genetic syndromes that cause hearing loss. There are different types of loss: sensorineural (the way sound is processed in the brain), conduction (bone conduction), and mixed. The degree of hearing loss and the onset and progression of the hearing loss that a deaf or hard-of-hearing individual experiences also ranges along a widely variable scale. A person could be born hearing, hard of hearing, or deaf (with variable decibel (dB) loss over a wide range). There is also

[1] For purposes of brevity and readability, I have decided to use the term "Deaf" throughout this report to refer to members of both the "deaf" and "Deaf" communities. It is my intention for the reader to construe the term "Deaf" in the most inclusive manner applicable to the d/Deaf population.

variation in terms of how the pattern of loss high frequency versus low frequency loss, bilateral versus unilateral loss, symmetrical versus asymmetrical, progressive versus sudden, fluctuating (e.g., Meniere's disease) versus stable loss. There are different degrees of loss: normal (-10-15 dB); slight (16-25dB); mild (26-40dB); moderate (41-55dB); moderately severe (56-70dB); severe (71-90dB); and profound (91+dB). Additionally, there are different patterns of loss. The audiogram plots loss in terms of dB and in terms of which frequencies of sound are affected. Damage within the speech range affects the ability to process and understand spoken language.

The congruence between a person's hearing loss and the speech banana (diagram below) will determine things like their ability to hear low (such as vowels, glides, nasals) but not high-pitched sounds (consonants such as obstruents, fricatives, and affricates). The shape of a person's loss on an audiogram can also indicate things like their inability to understand other people's speech but their ability to monitor their own (which could account for good speech in the absence of ability to hear others). This latter kind of loss can be particularly vulnerable to lack of accommodations when people unfamiliar with deafness assume that good speech means good hearing.



One very important distinction to consider is the distinction between deaf and hard of hearing. A deaf person, whether culturally Deaf or not, is profoundly deaf, which means that their hearing is not in the speech range and cannot be aided to allow them to process language in the speech range. They may have hearing aids that allow them to pick up non-speech environmental noises. A hard-of-hearing person can generally benefit from the use of hearing aids to process speech and has had a more consistent exposure to English over their lives. While they may identify as culturally Deaf and may use ASL, they also have more exposure to and mastery of English.

The point is that each person's individual pattern of hearing loss can impact how much and what type of spoken-language input they can process. So, two people both born deaf, may have very different processing abilities for spoken language. Audiology is the domain of specialists. An audiological profile is only one piece of the linguistic heterogeneity found in the Deaf and hard-of-hearing population. We need to look at not only an individual's ability to physically process a signed or spoken language via their eyes or ears, but also an individual's exposure to signed or spoken language and at what stages of their linguistic development.

Deaf individuals are also heterogenous in their use and mastery of ASL. Some sign, others don't. Among those who do sign: some sign with native-level fluency; others are late learners; some have suffered language deprivation even in signed language and actually have no language or a very minimally developed use of ASL; and others use a variety of signed communication ranging from ASL to English-influenced ASL to manually coded forms of English produced using signs drawn from ASL in English word order, at times with signs added to mark English morphology like tense, aspect, auxiliaries, etc. In addition to individuals who do not sign and use speech and lipreading, there are also individuals who use a systematic coding of speech information called Cued Speech (https://en.wikipedia.org/wiki/Cued_speech).

This broad range of communication modalities is evident in the qualifications of sign language interpreters. In the United States, most National Registry of Interpreters for the Deaf (RID) certified interpreters are competent to interpret in ASL and transliterate using Conceptually Accurate Signed English (C.A.S.E.) and Pidgin Sign English (PSE). Some certified interpreters are familiar with Manually Coded English (MCE) and Cued Speech. The only assessment available for interpreting using MCE is the Educational Interpreter Performance Assessment (EIPA). In addition to RID certified interpreters, there are some specialized transliterators in MCE and Cued Speech available in Massachusetts.

For the purposes of this report, I will focus on ASL and English and will address options for communicating with individuals with language deprivation.

A. Limitations of English within the Deaf Population

While it would be ideal for Deaf individuals to be equally competent in both ASL and English, most Deaf people never achieve such bilingual mastery. Research in Deaf education documents the fact that for most Deaf people, acquiring competence in spoken English is virtually unattainable (Marschark and Spencer, 2003; Wrigley, 1996; Lane, 1992).

Reading and writing are secondary to spoken language, so even though these modalities are visual, the majority of Deaf people also do not develop competence in reading and writing English. According to Karchmer and Mitchell (2003), numerous studies conclude that "the average performance on tests of reading comprehension for deaf and hard of hearing students is roughly six grade equivalents lower than their hearing peers at age 15." (See Allen, 1986; Traxler, 2000). DeVilliers and Pomerantz (1992) point out that Deaf students are in a vicious circle: "their impoverished vocabularies limit their reading comprehension and poor reading strategies and skills limit their ability to acquire adequate vocabulary from context." In the general educational literature, this is also characterized as not making the transition from learning to read to reading to learn.

Most Deaf people have "survival" English, similar to the kind that many immigrant populations in the U.S. develop, which enables them to accomplish basic, routine, recurring tasks. They use English to get by in their daily lives, but use requires repetition, predictability from shared schema or limited contexts. They read street signs, menus, subway directions, and advertisement posters and flyers. They do peruse newspapers and magazines, but, as marginal readers, they seek out those parts of these publications that are supported by visual material (pictures, sports scores, etc.). They also communicate with each other via email and other social media. Their texts, while written, are short and sometimes are actually English codings of what they would sign. When they write notes to people who are not deaf, these notes are often misunderstood.

The variety of English idiosyncratic to Deaf people is a fossilized form of English (see Grosjean, 1982) that has enough unique characteristics that has been labeled "Deaf English" (Charrow, 1974; Charrow, 1975). For example, the past tense in Deaf English is often marked with the morphology we would associate with passive voice: *John* <u>*was killed*</u> *Mary* means *John killed Mary*. Many studies of Deaf English have been conducted by Quigley and his colleagues (Quigley and Paul, 1984, inter alia).

Certainly, as in the non-deaf population as a whole, there is a range of literacy within the American Deaf Community. However, the critical point is that the average literacy level of members of the American Deaf Community is significantly lower than it is for the population as a whole. Given this and given that literacy levels among the U.S. prison population are generally lower than those among the general population (Alaska Justice Forum 24(2): 2-4), one could reasonably conclude that the literacy levels among Deaf prisoners may be lower than the non-Deaf prisoner population.

Numerous studies have addressed the reading and English grammar levels of Deaf individuals and placed the average at mastery of third grade to low fourth grade. (Berent, 1993; King & Quigley, 1980; Quigley, Wilbur, Power, Montanelli, & Steinkamp, 1976; Conrad, 1977; Trybus & Karchmer, 1977). Paul (1998) provides a helpful summary:

> [I]t is well documented that most students with severe to profound hearing impairment do not read as well as their hearing counterparts upon graduation (Allen, 1986; CADS, 1991; Quigley & King, 1985; Quigley & Paul, 1989). The recent findings on the SATs are similar to those reported for the unadapted versions of achievement tests in the early 1900s (e.g., see research review in Quigley& Paul, 1986). Two general findings can be stated. One, the results consistently reveal that average 18- to 19-year-old students with hearing impairment are reading no better than average 9- 10-year-old students with typical hearing. Two, the results show an annual growth rate of only 0.3 grade level per year with a leveling off or plateau occurring at the third- or fourth-grade reading level. There is also some agreement that these general achievement batteries might be overestimating the reading ability of students with hearing impairment (Davey, LaSasso, & Macready, 1983; Moores, 1987). Thus, the true reading achievement levels of most students in special-education programs may be even lower than the levels reported.

It is beyond the third-grade reading level that students use syntax (sentence grammar) to decode meaning, rather than relying upon expectation. For example, you don't need syntax to understand the meaning of "*The dog bit the mailman*" or even "*The mailman was bitten by the dog*." You can use your word and world knowledge to predict the intended meaning. However, to successfully decode and understand "*The dog was bitten by the mailman"* (an unexpected event), syntax needs to drive the interpretation of the sentence. Once cannot rely on other strategies like expected events.

The limited level of literacy presents significant difficulties for Deaf people. Consider, for example, that when one personality test was given to Deaf people using elementary English and again using ASL, the results were so different that the investigators concluded it was like giving two different tests. (Lane, 1992). Lane goes on to describe the difficulties in administering psychological tests to Deaf people:

> Since Deaf test takers in America frequently are not fluent in English, they not only fail to understand test instructions thoroughly, invalidating the results, but also fail to understand the test content itself, as most tests are presented in written English, and in rather high-level English at that.
>
> One authority estimates that a tenth grade knowledge of English is needed to take most personality tests meaningfully. Yet only one deaf student in ten reads at eighth-grade level or better, and the average deaf student on leaving school has only a third grade command of English.

With all of this in mind, it is clear that relying on standard written English as the primary or only means of communication with or for most Deaf people simply cannot be an effective means of communication.

B. Limitations of Lipreading and Speech within the American Deaf and Hard-of-Hearing Community

As challenging and often ineffective as it is for Deaf and hard-of-hearing people, as a group, to communicate in written English, it is even more challenging, ineffective, and impractical for them to communicate successfully via lipreading (also called speech-reading). While one may have the opportunity to reread static written word, speech is ephemeral. In addition, as noted below, if one does not have proficiency in the spoken language, then lipreading that language is even more difficult, if not impossible.

Many people mistakenly believe that all Deaf and hard-of-hearing people can lipread. They mistakenly believe that, lacking one of their senses, the ability to hear, Deaf people's visual sense – and hence their ability to lipread – becomes more acute in order to compensate. Most non-deaf people do not understand or appreciate the difficulties and limitations involved in trying to lipread. It is extremely challenging to lipread English because only a small fraction of the sounds used in the language are clearly visible – most speech is occluded from sight. In fact, even someone who is fully fluent in and who has full auditory access to spoken English would struggle to lipread English.

The average Deaf lipreader will catch approximately 30% of what is on the mouth (and typically that speech is predictable and highly routinized—like *What's your name? What's your address?*, etc.). For example, *mom* and *Bob* look the same. One cannot see that one involves nasal bilabial consonants (*mom*, dropping the velum which makes

exactly the same visible speech gesture, and the other (*Bob*) does not. Everything that can be seen is the same. One has to guess which word was intended and guessing opens up the possibility of more misunderstandings.

Lipreading with any success also requires a confluence of environmental conditions to permit the Deaf or hard-of-hearing individual to sufficiently observe the speaker. Ideal conditions include good lighting, a quite space without significant ambient noise, one speaker at a time, close proximity to the speaker, and a face-to-face vantage point with the speaker. A number of the Deaf and hard-of-hearing prisoners in this case who can, at times, rely upon some lipreading note particular problems with lipreading in the prison setting in addition to the absence of the other standard optimal conditions touched upon above. One is the interference of facial hair (mustaches and beards) as well as other physical features with lipreading. Another is the sheer number of different individuals encountered. Lipreaders are often accustomed to reading family members and other people they have come to know well and who know how best to speak to them. (See, e.g., Deposition Transcript of George Skinder (Skinder Tr.) at 24). Another recurring problem in the prison context is lipreading people who have accents. (Deposition Transcript of Jennifer Ward (Ward Tr). at 78-79; Skinder Tr. at 25-26). According to reports, medical professionals and other staff that Deaf and hard-of-hearing prisoners encounter have accents in their speech that are harder for lipreaders to process.

One of the most prevalent misconceptions that hearing people have towards Deaf and hard-of-hearing people is that if they can talk, they can hear. (See Deposition Transcript of Francis McGowan (McGowan Tr.) at 114-16). Deaf education has always been controlled by people who can hear, and there is heavy emphasis on "training Deaf people to assimilate" into hearing society, which focuses on one-way communication from a Deaf person to a hearing person—using speech even if they cannot hear it or reliably lipread it. This assimilation training is very oppressive for Deaf people because it ignores the importance of a two-way communication. Talking to a hearing person who does not know sign language does nothing to ensure that what that hearing person says will come back to the Deaf person clearly.

Hearing people trying to "understand" Deaf people who have poor speech is also a guessing game. Many Deaf people have been trained to talk regardless of how clear their speech is. This can be problematic because both parties have no idea whether what they think is being said is actually accurate.

It is also easy to make assumptions or judgments based on a person's speech. A common assumption is that if a person speaks clearly, they can understand clearly as

well. This is false. Another judgment is if a person's speech is not clear, then they are not smart, causing the speaker to dumb down their communication. This latter judgment juvenilizes Deaf individuals and forces them to present a persona that falls far short of who they really are. This is one of the primary reasons that many Deaf individuals who have some limited speech ability refuse to use it.

Lipreading should not be relied on at any time except for very superficial communication such as basic needs like asking where the bathroom is. Anything more takes away the Deaf person's right to communicate. Even more troubling is when lipreading is required. Deaf people in this situation often feel forced to accept this as the only option. They may think they are understanding what is being said, but they have no way to know this for sure. And they have had a lifetime of experiences that speak to the unreliability of lipreading. Lipreading is also impacted when pain or fatigue is in the picture.

C. Cultural Adjustments

Independent of grammar, how individuals express information can vary based on their language and culture. Let's consider a difference between the typical deaf and hearing experience. Hearing individuals are bombarded throughout their day with information about news events and popular culture by radio, TV, overhearing of casual conversation, newspapers, etc. As a result, when hearing people communicate they presume a great deal of shared knowledge about current events and popular culture. Hearing people speak in abbreviated terms because they presume this shared knowledge. Deaf individuals have less access to information in the ambient environment. They must actively seek it out and definitely miss the redundancy of hearing every issue mulled over numerous times in the passive overhearing of others' conversations. A consequence of this is that, in introducing a new topic or answering a question, there is a tendency for a deaf person to go to great lengths to establish the background and context of the new information being conveyed. An answer to a yes/no question can get a prelude that at times seems to the hearing person like an autobiography or daily diary of events. It comes across as overkill. Frequently, the Deaf person's response is cut short on the assumption that there is too much irrelevant information and the response is taken to be a non sequitur. In contrast, a hearing person's conversation comes across to a Deaf person as curt, often sketchy--sometimes as the intentional withholding of information.

In social interactions, similar presumptions can leave a Deaf participant feeling left out. Hearing people presume that individuals present at an event can get the gist of what's going on from passive observation and monitoring of the proceedings. But,

hearing conversation is crucial to this process. Without a concerted effort to include Deaf participants and fill them in on what is happening, they will remain in the dark.

D. Nodding

Another common problem that arises because of the strain of conversing in a language that is not one's primary language is that frequently the second language user nods as if understanding, even when not comprehending--as a politeness measure, or just to keep the conversation going. Deaf individuals who spend much of their time with hearing people in this state of non-comprehension are prone to doing this. Accordingly, a good interpreter will frequently check that the deaf person truly comprehends the transmitted message by probing with questions or simply checking for explicit comprehension.

In a situation with a hearing person where lipreading is used, a deaf person will eventually nod just to get the conversation over with. The hearing person, also pressured by the inability to make oneself understood in this context, readily accepts this nodding as confirmation of comprehension. The desire to believe that lipreading will suffice combined with nodding behavior on the part of a deaf person can lead an individual to attribute unrealistic lipreading abilities to a deaf interlocutor, when in fact, both participants are "faking it." Such interactions can lead to the hearing interlocutors deciding that an interpreter is not necessary, when on the contrary, very little communication is being successfully transmitted. For this reason, it is prudent to heed the request of the Deaf interlocutor when need for an interpreter is expressed.

V. AMERICAN SIGN LANGUAGE

A. Language Structure

ASL and English are two completely distinct languages that are mutually unintelligible. They differ in how they mark subjects and objects, in how they ask questions, make relative clauses, order information in the sentence, mark gender on pronouns, omit versus require pronouns in subject position, use prepositions, mark verbal aspect (duration, iteration, etc.), tense (present, past, future), as well as adverbials (carefully, recently, etc.). The grammatical structure of ASL is closer to that of Chinese than English (Kilma and Bellugi, 1979; Baker-Shenk & Cokely, 1980; Rutherford, 1992; Valli, Lucas & Mulrooney, 2005).

As a result, an ASL interpreter must take the input from one language, understand it, and, concept for concept, convey that information in the grammatical forms of another language. Consider some interesting points of confusion for a hearing

interlocutor observing ASL. The examples given in this section are characteristic of ASL and not taken from this client in particular. Examples from the plaintiffs in the case can be found in their individual assessments in Appendix C.

Suppose a Deaf signer voiced concurrently with signing the following compound sign GOOD^ENOUGH in ASL. The hearing interlocutor might assume that the utterance meant "sufficient, fine" when instead it means "barely adequate, with a lick and a promise."

In the following sign string, the letters *a* and *b* indicate locations in space used to mark the beginning and endpoints of signs to allow establishment of a relationship between a noun phrase referent (e.g., WOMAN or MAN) with a point in space (point a or point b). This is accomplished in ASL by signing the noun phrase and then pointing (IX) to a point in space (a, b, etc.). Later pointing back to those locations (IXa, IXb, i.e., pronouns) or verbs that spatially move *from* or *to* these positions (e.g., bHITa) serve to indicate who did what to whom. Because ASL also marks subject and object (more specifically, the indirect object or locative object that has been incorporated spatially on the verb), many orders are possible. The example below involves topicalization of the object, WOMAN, and the subject MAN in an afterthought position. Information about subject and object in English is conveyed through word order. The noun phrase before *hit* is the subject or agent; the noun phrase after *hit* is the direct object or patient. If one were to voice the nouns and verbs while signing the following grammatical sentence in ASL, a non ASL signer would misunderstand the sentence's intended meaning as "The woman hit the man," but an ASL interpreter would have no problem ascertaining the correct meaning from the subject and object agreement on the ASL verb: "The man hit the woman."

Concurrent mouthing/voicing: woman hit man
ASL signing: WOMAN IXa, hit, MAN IXb
meaning of glosses: woman at-point a person-at-point b-hit-person-at-point a MAN at-point b
English Translation: "The man hit the woman."

Obviously, if any factual determinations were being made here without the benefit of an interpreter, dangerous misunderstandings would be possible.

Another potential language-based misunderstanding concerns grammatical facial expressions marking wh-question sentences (those involving *who, what, why, when, how,* etc.) and relative clauses. In spoken languages like English, facial expressions play little role. In fact, for most people facial expressions serve in caricature (making faces) or in showing affect (emotion). However, while these uses are relevant to ASL signers as well, there are also sets of purely grammatical facial expressions that serve an

essential grammatical role in the language. Grammatical facial expressions are distinct from affective facial expressions. However, for non-ASL signers for whom these expressions have no distinct grammatical meaning, these expressions are similar enough to be confused with affective facial expressions. Two types of questions are marked by specific grammatical facial expressions: yes/no questions (questions requiring a "yes" or "no" answer) and wh-questions (questions involving *who, what, where,* etc.). Yes/no questions involve raised eyebrows and a forward projection of the head. Wh-questions involve furrowed brows, a facial expression often also associated with the affective facial expression expressing anger. Question facial expressions sometimes occur over a single wh-word and other times spread across the whole sentence. In these spreading cases they can be easily misunderstood by a non ASL-signing observer as affective in nature--in the case of wh-questions as anger.

I will offer a somewhat extended discussion of relative clauses in ASL as one example of the nature of this language. Relative clauses in ASL are marked by a special facial expression that occurs over the relative clause as in:

rc_____
DOG CHASE CAT COME HOME
"The dog that chased the cat came home."

Without the relative clause facial expression, the same manual string of signs would mean, "The dog chased the cat and it [the dog] came home." Or, it could mean "The dog chased the cat and it [the cat] came home." It all depends upon the spatial agreement on the verb.

DOG[***location a***] [aCHASEb CAT[location b] ***a***COME[location of narrator] HOME
"The dog chased the cat and it [the dog] came home."

DOG[location a] [aCHASEb CAT[***location b]*** ***b***COME[location of narrator] HOME
"The dog chased the cat and it [the cat] came home."

If the verb COME agrees with the dog's location in space (***a***COME), the sentence indicates that "the dog came home." If it agrees with the cat's location (***b***COME), the sentence indicates that "the cat came home." Notice that the ASL word order is the same in both sentences. Only the spatial agreement differs.

If we spread the relative clause facial expression over the first clause in each of the two sentences above, we see an even more drastic difference between the grammars of English and ASL, especially their word orders. Notice that the word order for ASL doesn't change at all, only the spread of facial expression and the spatial agreement.

_____rc

DOG[***location a***] [aCHASEb CAT[location b] ***a***COME[location of narrator] HOME
"The dog that chased the cat came home."

_____rc

DOG[location a] [aCHASEb CAT[***location b]*** ***b***COME[location of narrator] HOME
"The cat that the dog chased came home."

If the facial expression spread instead over CAT COME HOME, the sentence would mean "The dog chased the cat that came home."

Relative clauses involve a tensing of the cheek muscles and a raising of the upper lip spread over the relativized clause. While very different from relative clauses in English, which involve a movement of the relativized noun phrase to the head of the clause, creating a complex noun phrase, the relative clause construction in ASL is within the range of possible relative clauses that occur cross-linguistically. They are much like what is referred to as the "tonosyntax" of relative clauses in the African languages like Hausa, where a relative clause is marked by a tone that spreads over the relative clause. In ASL, a facial expression is spread over the relative clause.

I have presented this expanded example of relative clauses to make the point that ASL, and signed languages in general, are fully fledged members of the class of human languages, with all the structure and complexity of any other language in that class. I have used these examples to point out that ASL is a distinct language that is typologically very different from English. To assume otherwise, as many individuals unfamiliar with signed language may do, opens up the risk of serious communication breakdowns.

The overlap of components of grammatical and affective facial expressions increased the likelihood that non-ASL signers observing ASL conversations will misinterpret a signer's emotional affect. For example, the relative clause facial expressions discussed above have been reported to be confused by non-signers with the facial expression for disgust. Interpreters circumvent this misunderstanding by conveying the signer's actual affect in their voice quality and by explaining the role of grammatical facial expressions if such a misunderstanding were still to arise.

Another potential difference is the fact that ASL is a "null subject" language. This means that in cases where the reference is recoverable from context or from agreement

on the verb, subjects may be omitted. In fact, it is stylistically preferable to omit them. Note the missing referents (labeled as "[e]") in the following passage:

> [e] TAKE [e]. [e] THINK-BUBBLE-OPEN(imagine) [e] FLY [e] TAKE THINK-BUBBLE-CLOSE
> 'He (Mr. Koumal) took them (the feathers) and he imagined himself flying.'
>
> [e] CLIMB-UPWARD++ [e] JUMP-OFF [e] [e] FALL-DOWN-right, down
> 'He climbed upward on the mountain, jumped off of it and he fell down.'

B. Orthography

ASL is not typically written down, although there are a few writing systems used among some signers. For example Signwriting, captures the manual and non-manual aspects of ASL in an orthographic system originally developed from a dance notation (www.signwriting.org). However, just as speech is the most natural and efficient form of communication between hearing individuals, face-to-face signing is the most natural communication mode for Deaf people. The difference is that written English is a secondary system based upon spoken English. As a minority in a hearing-dominant culture using a language without a widespread writing system, most signers communicate face-to-face in one language (ASL), but they write in another (English), one of which they may have limited mastery.

C. General Background on Interpreting

i. When Is an Interpreter Needed?

Deaf individuals are likely to require and request an interpreter – especially in situations in which it is important that they are able to share and have addressed all their concerns. Without an interpreter, when Deaf individuals do request clarification on points missed (if they can even determine this), tensions can arise between the hearing person and Deaf individual as a result of added time, effort and frustration in the communication context. This tension adds to the stress of the situation because the Deaf individual fears that the services that he or she receives may be compromised or withheld as the result of a negative rapport with the service provider.

In contrast with most service providers, Deaf people have a lifetime of negative consequences that have taught them to recognize their own limitations (and the limitations of their interlocutors) in communicative situations such as these. These life experiences lead them to request the accommodation of an interpreter.

ii. The Role of an Interpreter and Interpreting Credentials

An interpreter's role is to facilitate the communication between two parties who do not share a language in common. No two Deaf individuals sign alike. As with English speakers, there exist a variety of idiolects, ranging from dialects of formal ASL to an infinitely varying continuum of contact signing forms of English-influenced forms of ASL or ASL-influenced forms of spoken or written English. Because 90% of Deaf individuals come from hearing, English speaking families, their exposure to both English and ASL can vary greatly, yielding the potential for many cases where Deaf individuals command only a partially fossilized form of the target language in question. They may be native speakers of neither, and interpreters are experienced in finding the communication mode best suited to their production and comprehension skills. Hearing clients also have differing degrees of familiarity in interacting with Deaf interlocutors. Professional interpreters (both hearing and Deaf) are skilled at facilitating these interactions and assuring that communication is indeed happening; and if it is not, calling in the appropriate interpreting resources needed. The use of different languages can often be associated with distinct cultural experience bases. Therefore, an interpreter must also frequently perform cultural adjustments that allow the communication between the two parties to be transmitted and understood with the full content and nuance intended.

Interpreters are bound by a strict code of conduct that assures their professional behavior (demeanor, confidentiality, self-evaluation of ability to perform the interpreting task, etc.) in all interpreting situations. Perhaps the most important characteristic of a certified interpreter is the ability to determine when and if their skills are not up to the task and the professionalism to withdraw from the interpreting situation. For example, if a Deaf person's ASL is nonstandard (e.g., a dialect of ASL unfamiliar to a given interpreter, highly influenced by a foreign sign language, minimal language skills in ASL, etc.) or if the range of registers in the repertoire of the interpreter are not sufficient to maximize transmission of information to a particular client, a certified interpreter is expected to be conscientious and discriminating in the assignments that they accept, to know when they are or are not qualified to interpret, when to call in a team, when the situation requires a Deaf interpreter teaming with a hearing interpreter, when the situation requires a legal interpreter, and a host of other decisions.

Both the language and professional ethics training are essential to meeting the communication needs of an individual in a legal situation. Bringing in "a signer" (someone who knows some ASL, even a friend of the deaf individual) is not appropriate in these situations. A social acquaintance with conversational skills cannot

necessarily facilitate communication within or outside of the social context. Anyone who speaks a second language can identify with "faking it" or maintaining a conversation with a speaker of that language despite major gaps in understanding. To backtrack every time part of the message is missed would quickly lead to a complete breakdown in any interchange. Interpreters must have the skills to understand and convey most of the message and the diligence to interrupt the proceedings and inform the consumers if failure of transmission or comprehension occurs.

Until 2016, RID was responsible for the evaluation, certification, and professional maintenance of interpreters nation-wide. Recently, RID has shifted responsibility for evaluation and certification to an independent entity and remains focused upon being a registry of interpreters and documenting professional maintenance of signed language interpreters nation-wide. In June 2016, RID established the Center for Assessment of Sign Language Interpretation, LLC (CASLI) to take over the ongoing development and maintenance of credentialing exams.

Passing the RID certification generalist test (CI and CT; CSC; or RSC for Deaf interpreters), the current RID/NAD National Interpreter Certification (NIC) test or the Certified Deaf Interpreter (CDI) test assures the minimum standard skills in ASL and English, the interpreting process, and ethical decision making to adequately interpret.

Educational, legal, medical, and mental health interpreting require specialized experience and knowledge. For instance, the Massachusetts Commission for the Deaf and Hard of Hearing requires that interpreters assigned to legal and quasi-legal situations have an Specialist Certificate: Legal (SC:L) or to have completed a specialized legal training and one hundred mentorship hours. (Transcript of Shannon LaMarche (hereinafter "LaMarche Tr.") at 23-27)

Interpreters who are themselves Deaf and hold the RSC or current CDI certification are critical to the provision of linguistically and culturally effective interpreting services. Deaf interpreters have an intimate familiarity with Deaf culture and are recognized by Deaf consumers as sharing their culture. They are also more likely to be heritage language users who have native-level proficiency in ASL. They have grown up with ASL and are familiar with a much wider range of dialects and idiolects of ASL as well as greater familiarity with using non-linguistic gesture for communication with individuals without a formal signed language in their repertoire. Currently, Deaf interpreters can hold the generalist CDI certification and the SC:L.

As discussed above, out of necessity, all Deaf people in the U.S. are expected to be bilinguals who may use ASL for face-to-face communication but some form of English for written communication in non-face-to-face situations or when spoken

communication breaks down. Because ASL does not typically have a written version of ASL associated with it, many Deaf individuals use one language for face-to-face communication (ASL) and another language for written communication (some level of English). However, fluency in English is often more challenging for Deaf individuals because of poor educational upbringing, which often results from conflicting philosophies in Deaf Education. As a result, there is a significant majority of people who remain at a third- to fourth-grade reading level all of their lives since that is the grade where students transition from "learning to read to reading to learn."

Since many individuals who are Deaf haven't learned how to read with full efficacy, the skills needed to read to learn aren't present and English usage remains low. Yet, 6% to 10% of the Deaf population are born to either one or two Deaf parents themselves. This small percentage is more likely to have full communication access from birth since they can share their parent's language. The chances for this portion of the population to be balanced bilinguals is much higher than the rest of the Deaf population.

Being a balanced bilingual means that one will navigate both ASL and written English with much more ease than other Deaf people. Balanced bilinguals are much more likely to have received more academic training and with this education level, they want to understand medical issues they may have in more detail. Still, access to spoken language remains out of reach for these people despite being a balanced bilingual. Having English fluency does not mitigate the need for an interpreter, especially when others access communication primarily through spoken communication instead of written communication.

Regardless of English proficiency, using writing English as the main form of communication limits the Deaf person's ability to ask questions in depth since writing either takes too long, or the interlocutor in high stakes situations (e.g., doctors, lawyers, disciplinary officers) may revert to advanced or specialized language which still remains out of reach of the patient. Whether intentional or not, communication is being purposefully withheld from the patient at this time due to a decision to offer communication in a form other than the patient's primary language.

iii. <u>It is inappropriate for friends and family to interpret?</u>

When the accommodation of an interpreter is denied, a frequent outcome is that family members or friends – or, in this case, other prisoners – feel compelled or are sometimes directly required to step in to try to provide access, even though they are not qualified. This is inappropriate for a myriad of reasons.

Friends and family are, by definition, not impartial and, thus, are inherently conflicted from serving as certified interpreters, regardless of their ability to interpret accurately. They have a stake in what transpires and can filter or even skew the message without service providers or consumers being aware of what is happening. In addition, the Deaf person may limit their statements based on the interests of their unqualified "interpreter." Thus, in addition to the high probability that the correct information will not be conveyed, using an impartial friend or family member risks violating the privacy and the autonomy of the Deaf person. (See, e.g., Deposition Transcript of Leonard Briggs (Briggs Tr.) at 180-82).

Both the Code of Professional Conduct of the RID that professional interpreters adhere to and laws relating to interpreting specifically note that a qualified interpreter must not only be able to interpret effectively, but they must also be impartial. For instance, the guiding principle under the third tenet of the Code of Professional Conduct for interpreters speaks to this issue: "Interpreters are expected to present themselves appropriately in demeanor and appearance. They avoid situations that result in conflicting roles or perceived or actual conflicts of interest." Conflict of interest is defined as "[a] conflict between the private interests (personal, financial, or professional) and the official or professional responsibilities of the interpreter, in a position of trust, whether actual or perceived, deriving from a particular interpreting situation."

Federal regulations also define a "qualified interpreter" very specifically as, "an interpreter who is able to interpret effectively, accurately and impartially both receptively and expressively, using any necessary specialized vocabulary." (28 C.F.R. 36.301 (c)) The U.S. Department of Justice makes clear in a webpage

In a Federal Justice department webpage on ADA requirements regarding effective communication, appears a section entitled "Use of Accompanying Adults or Children as Interpreters." (https://www.ada.gov/effective-comm.htm). It makes clear that "[t]he ADA places responsibility for providing effective communication, including the use of interpreters, directly on covered entities. They cannot require a person to bring someone to interpret for him or her."

VI. Summaries of Deaf or Hard-of-Hearing Prisoners Assessed

I have assessed seven named plaintiffs, either directly (5) or via records and video depositions (2). These individuals offer a diverse (but not exhaustive) representation of the heterogeneous population of Deaf individuals who can be

encountered in prison settings. All are individuals in need of accommodation to have equal access in a prison setting.

These named plaintiffs differ in age, etiology of Deafness, exposure to ASL, exposure to English, level of cognitive functioning, physical health status, mental health status, education, life goals, and world experience.

Three are relatively young (Skinder, Roldan, Ward); one is elderly (Briggs); and the remainder are in their 50-60s (Jimenez, Markham, McGowan). Five are prelingually Deaf (Markham, Skinder, Briggs, McGowan, Roldan); two are late-Deafened (Jimenez (sudden and progressive loss), Ward (progressive loss). Five sign (Markham (native ASL), Skinder (early learner), McGowan (late learner), Briggs (second-sign language learner – first British Sign Language, then ASL), Roldan (limited language)); two do not (Jimenez (first language Spanish), Ward (first languages English and Greek)). All seven have additional chronic medical conditions that can significantly impact their ability to perceive language and communicate (McGowan (Parkinson disease (degenerative), arthritis); Jimenez (cancer, cataracts, pterygium, etc.); Markham (macular degeneration); Briggs (diabetic retinopathy, arthritis); Skinder (mental illness); Roldan (developmental disabilities, seizure disorder); Ward (arthritis)). They also vary in terms of educational background (elementary only, high school only, postsecondary), ethnicity (Jimenez is Latino), and gender (Ward is female).

A. Individual Summaries of Plaintiffs

The individual summaries on the next few pages highlight some of the unique differences and needs among the named plaintiffs. The full individual assessments are included in Appendix C.

Rolando Jimenez Sanchez (Tested at MCI-Norfolk; also incarcerated at Bay State Correctional Center, MCI-Cedar Junction) Date of Testing: April 6-7, 2019; Age at Time of Testing: 60; Date of Birth: April 5, 1959.

Mr. Jimenez was born in Frios Piedras, Puerto Rico. His first language is Spanish and he is culturally Latino. He was schooled in Puerto Rico through the eighth grade. He reports that in school he had learning disabilities—dyslexia and memory issues. He reports that he never learned to read until he was in the prison system. However, his Spanish writing and vocabulary are much better than what he can produce in English.

Mr. Jimenez reports being late-deafened (age 23- to 24) from ear infections; he is also diagnosed with otosclerosis. He has worn hearing aids since 1996. Being late-

deafened, his speech is good, especially in Spanish. Listening to his speech, he has an accent and one can understand about 80%; with context, listening comprehension is 90 to 95%. With fully-functioning hearing aids and under ideal conditions (good lighting, quiet, face-to-face, close, clear speech from trained transliterator with repetition provided), Mr. Jimenez can understand roughly 86% of spoken English communications through lipreading. Absent ideal conditions, Mr. Jimenez's comprehension of spoken English is far less than 86%. Indeed, when fatigued or faced with a stressful situation, Mr. Jimenez's comprehension of spoken English may be completely compromised. His hearing aids are often not fully functional. In addition, they were replaced and adjusted three times, but are incompatible with the T-coils that allow him to link up to voice interpreting in Spanish for various meetings via Language Line. He needs accommodations to access meetings and could benefit in large meetings from a qualified oral transliterator, particularly in Spanish.

Mr. Jimenez functions primarily through speech. He reads and writes English at a second-grade level, but his writing shows deaf features and second-language learner characteristics. His writing suffers due to his inability to spell English words and involves many blanks, where a word is started (first or first and second letter) and then left blank. His written English is difficult to understand. His reading vocabulary is also at a second-grade level. He has no vocabulary at the twelfth-grade level, which would be acquired through reading. Based upon acquired world knowledge, he has higher vocabulary in the medical and law enforcement areas, but this increase in specialized vocabulary does not indicate any increase beyond a second-grade reading level.

DOC personnel rely heavily upon written communication for numerous recurring activities, including filing grievances, requesting accommodations, and communicating with nurses and doctors. With reading and writing limited to a second-grade level, such policies disadvantage Mr. Jimenez. It appears that he generally relies upon another prisoner to aid him in written communication with staff and in filing grievances. He needs a more impartial and professional resource to complete communications of this sort.

In addition, Mr. Jimenez's reading is insufficient to allow him to understand the prisoner manuals. A readability analysis of the grievance procedure section of MCI-Shirley's grievance manual reveal that it is written at a minimum twelfth grade level (Flesh-Kincaid Grade level: 12.3; Gunning Fog Index = 15.2). (103 CMR 491). This is far beyond, Mr. Jimenez's reading level and likely beyond most of the prison population in general.

Louis Markham (Tested at Massachusetts Treatment Center; also incarcerated at MCI-Cedar Junction, MCI-Norfolk, and NCCI-Gardner) Date of Testing: April 8, 2019; Age at Time of Testing: 66; Date of Birth: August 25, 1962.

Louis Markham is a culturally Deaf, natively-fluent signer of ASL. He has a younger Deaf brother. He also attended a residential school for the Deaf. While his language is excellent, his Cognitive Academic Language Proficiency (CALP) is a bit less than would be expected for someone educated at a residential school for the Deaf. This is a person who can achieve full communicative access via ASL at an adult level of participation.

Mr. Markham is profoundly Deaf. He has bilateral hearing aids, but he often only uses the left one due to painful pressure in his right ear. His aids do not help him to hear speech. He only uses them to hear environmental noises.

In terms of English, his communication is limited. His speech is poor. There were many times during the assessment when his phonation was weak or absent. When it could be heard, the speech was not intelligible. Consonant clusters were simplified and, at times, fully deleted. Targets were imprecise. These features combined with awkward sentences and strong influence from ASL grammar. His speech comes across as juvenile, affecting people's impressions of him and expectations for him.

Mr. Markham's lipreading is also poor (33%). This is insufficient for reliable communication access and will certainly lead to extreme frustration and poor outcomes when he is forced to rely solely on lipreading for high stakes information.

TABE test results in 1994 indicated that he read at a second-grade level, and when retested in 2012 with a sign language interpreter he performed at a fifth-grade level. (DOC-BR0031284-87). On my testing, he performed at a second-grade level on both the Flynt Cooter Inventory as well as the San Diego Screening. In either case, he reads well below the level of the prisoner's manual. 103 CMR 491. Mr. Markham's writing is also limited. He has difficulty with tense, number, and person agreement. He only uses the definite determiner (*the*). Much of his writing is influenced by ASL grammar—to the point that it can be argued that he is mapping English words almost directly onto ASL grammar.

Policy manuals say that forms such as grievances and those distributed by the ADA coordinator need to be in writing and specify that someone should aid them in filling out the forms if necessary. (*See, e.g.,* 103 CMR 491); Mr. Markham requires an interpreter for this purpose and for filling out all other forms and should not be forced

to rely on other inmates, especially inmates who are not fluent in ASL. He noted that, for many years, medical staff have attempted to communicate with him in speech and writing, despite his need for an ASL interpreter.

At the time of our meeting, Mr. Markham was at a site where there were no other Deaf prisoners. This was very isolating for him. Interpreters have noted that his language abilities have regressed. When he watched part of Bahan's ASL story, *Bird of a Different Feather,* he commented that he would have loved to have the opportunity to watch the rest of it. This video and many others are commercially available and, given that videos are vetted and made available to prisoners for entertainment, DOC should be required to include some videos in ASL in their offerings. Mr. Markham watches television with captioning, but he doesn't understand a lot of it. Unfortunately, to his knowledge, his tablet does not permit captioning.

Francis McGowan (Tested at MCI-Norfolk; also incarcerated at MCI-Cedar Junction, and Massachusetts Treatment Center) Date of Testing: April 6-7, 2019; Age at Time of Testing: 62; Date of Birth: October 8, 1956.

Mr. McGowan was born Deaf in Brooklyn, New York. He has a hard of hearing maternal aunt, maternal grandmother, and daughter. His father was late deafened. None of his family members sign, except for his daughter. He attended a variety of mainstream schools with Deaf programs in Southern California.

Mr. McGowan is profoundly deaf. He has bilateral hearing aids. They do not help with speech, but they are for environmental noises.

Mr. McGowan is bilingual and bicultural. His speech is intelligible at a level of 90 to 95%. His targets are softened and articulation is imprecise, but still intelligible. In ideal conditions and taking steps to ensure that he is not stressed or fatigued, Mr. McGowan's lipreading is also above average (86% overall). In conversing with him, he prefers simultaneous communication—the use of signing and speaking concurrently. Each time I dropped my signing and only spoke, he asked for clarification.

Based upon vocabulary alone, his reading is at a sixth- to ninth-grade level. He handled the reading passage solidly at a ninth-grade level. He reads avidly and watches TV with captions with understanding. The main factor is speed. His processing is slowed by Parkinson disease (PD).

Mr. McGowan has a range of signing from more PSE to ASL. Despite learning ASL as a second language, he is a fluent signer. Before his incarceration, he socialized

regularly with Deaf people. Most of his friends were Deaf. Currently, he is socially cut off from the Deaf community. One thing that contributed to this was the extensive period of time without consistent access to a Video Phone or other means to connect with the Deaf community.

The combined effects of PD and arthritis make writing almost impossible for him. It is very effortful. Writing as a means of communication access is not an option. His signing is only mildly impacted by PD currently, but the degeneration will be progressive and his speech will fail him before his signing does. His mobility is impaired. He was in a wheelchair when I tested him, but he does walk on his unit. He is relatively unstable, but not currently using a walker. He has many medical appointments and needs interpreters to discuss his current treatments, prognosis, and decisions concerning his participation in his treatment.

In terms of technology, Mr. McGowan needs an emergency plan both regarding his mobility and regarding his inability to hear alarms and announcements.

George Skinder (Tested at NCCI-Gardner; also incarcerated at MCI-Cedar Junction, Massachusetts Treatment Center, MCI-Norfolk, MCI-Shirley) Date of Testing: April 14, 2019; Age at Time of Testing: 31; Date of Birth: March 24, 1988.

George Skinder is the youngest of the inmates tested. This is relevant because he is also one of the plaintiffs most interested in accessing educational opportunities. He became deaf at age three from ototoxic antibiotics used to treat an ear infection. No one in his family signs except his older sister, who only signs a little. Mr. Skinder entered school at age three (Cape Cod Collaborative). He was in a self-enclosed Deaf classroom until second grade and was then mainstreamed with interpreters. For high school, he went to the Deaf and Hard of Hearing Program at READS Collaborative, then the Learning Center in Framingham. After some time in a mental health facility and a group home, he went to a behavioral program at the Frederick Learning Center in Middleboro. He received his high school diploma from a joint program of the Frederick Learning Center and Falmouth High School. His education was mainstreamed, but fully engaged with Deaf education—that is, signing teachers, interpreters, etc.

As an adult, Mr. Skinder currently uses VRI interpreters for most of his medical appointments and needs an interpreter to fully access educational, rehabilitative, and vocational programming at DOC. As of the assessment, he had never had an interpreter for disciplinary proceedings. For accommodations, he likes VRI, on-site interpreters, VP, CapTel, and CART, as appropriate. These fit with his strongly bilingual competencies. Mr. Skinder is very bright, with an excellent memory. He has strong

Academic Language Competency in both ASL and English, so he would be academically promising as a student at the postsecondary level.

Mr. Skinder has a severe to profound hearing loss and wears bilateral hearing aids. In ideal conditions and with fully-functioning hearing aids, he is an excellent lipreader (97%). He has particular difficulty understanding people with accents. He reported that he can recognize his name being called from behind his back when using his aids, but no other speech, including intercom announcements at his current facility. His speech in intelligible at an 85% to 90% level while viewing him as an individual familiar with deaf speech. I am a certified oral transliterator and am very familiar with deaf speech. There are some unintelligible stretches and his speech has a juvenile quality because of imprecise articulation targets. He is much more difficult to understand when not looking at his face. This suggests that his speech would be difficult to understand for many hearing individuals not used to speaking with him. His spoken language also exhibits some ASL features like the use of null subjects and quotations that are not marked by "He/she said…" but rather are signaled by ASL non-manual torso movements. These will also impact intelligibility for non-signers.

Mr. Skinder reads solidly at a seventh-grade level, although based upon the San Diego Screening he may have some vocabulary gaps above the fifth-grade level. He reads avidly and he watches T.V. with closed captions with understanding. Mr. Skinder writes well, although there is some evidence of second-language learner features in his determiner choice, tense marking, and some vocabulary gaps (e.g., *featherband* for *headdress*).

Mr. Skinder is a fluent signer of ASL, but, culturally, he identifies more with the hearing world. His primary and preferred language is PSE, an English-influenced contact variant of ASL. His signing shows much ASL grammar and effective use of ASL discourse; however facial grammar and Size and Shape Specifiers are underused. This fits with his preference for PSE. He associates mostly with hearing people, but also has Deaf friends with whom he likes to communicate. He has held a variety of blue-collar jobs, the most specialized being car repair, landscaping, and roofing. Mr. Skinder has a series of mental health diagnoses for which he is being medicated. Several of these medications need to be regularly followed to prevent the visual and motor side effects that could impact signing.

Mr. Skinder's ASL comprehension is also very strong. He understood Bahan's, Bird of a Different Feather, and immediately got and expanded upon the allegory. He also fully understood Rivera's DWI story that uses productive ASL grammar exclusively as well, including recognizing on his own the two errors in the story. His

only weakness (parallel with his ASL expression) was in recognizing novel Size and Shape Specifiers (SASSs).

Mr. Skinder is a large man, who signs large. He feels that DOC staff often misunderstand his signing and speech volume for aggression and suggested that they need sensitivity training. At the least, he needs to be able to discuss their reactions to his gestures and manner of speech directly with them via an interpreter.

With all of these skills, Mr. Skinder still cannot hear and needs visual alarms and visual messaging. In addition, such sensitivity training will also need to address the tendency to assume that good speech does not imply ability to hear. Furthermore, given his age and intelligence, he particularly needs interpreter support to allow him to pursue academic learning while in prison.

Jennifer Ward (Tested at MCI Framingham) Date of Testing: April 17, 2019; Age at Time of Testing: 48; Date of Birth: May 3, 1970.

Jennifer Ward was born hearing. Her family spoke Greek and English at home. She started to lose her hearing at age 32 and has a bilateral progressive hearing loss from degenerative otosclerosis (genetic). She has had several corrective surgeries: a left stapedectomy, a left mastoidectomy, and a right eardrum graft. Over the past five years, her hearing has declined rapidly. Currently, she has a severe to profound hearing loss in her left ear and a severe loss in her right ear.

Ms. Ward's speech is clear and understandable. She relies upon lipreading and, under ideal conditions with her hearing aids fully functional, she does very well (97%). Without sound, her comprehension drops to 42%. This is evidence that as her hearing declines, so will her ability to rely upon lipreading. She has problems hearing both high frequency and low frequency sounds. She expresses great difficulty in speechreading people who have accents. Many of the physicians and medical staff she encounters in prison are foreign with accents and difficult to understand.

Ms. Ward has excellent reading skills. Her reading is solid up through the eighth-grade. Her vocabulary on the San Diego Screening places her a bit higher. This fits with her educational background, which includes a BA from Emmanuel College in English Literature, an MS in finance from Northeastern University, as well as a paralegal certificate from Northeastern and a certificate in financial planning from Boston University. In prison, she has tutored women in English, math, and history as they worked toward their GEDs. Ms. Ward's writing skills are also excellent. However, she has severe arthritis and this impacts her ability to write for prolonged periods.

Ms. Ward is concerned with preparing for her eventual serious hearing loss by proactively learning ASL. She has tried to teach herself—learning the fingerspelling alphabet and some basic words. All the words she showed me were incorrect. She is eager to get some substantive training and even expressed willingness to pay for the books/DVDs herself if she could obtain them. Given her location in MCI-Framingham, in close proximity to the largest school for the Deaf in Massachusetts, The Learning Center for Deaf Children, her educational goal seems tractable either on-site or online if DOC has the willingness to assist her. Most of her friends are hearing but she also has some hard of hearing friends and identifies as hard of hearing.

Ms. Ward can be accommodated effectively with CapTel, CART, or an oral transliterator. She prefers CapTel for telecommunications and CART for classification and other hearings. A CapTel phone arrived at the end of February 2019, but she is only allowed to use it once a day, in the morning. If she wants to use it at night, the unit officer has to call the captain's office and the captain is supposed to bring it up right away. However, she reports that the unit officer keeps saying the captain isn't there, so there are severe delays.

With regard to alarms, she needs a strobe alarm in her room. She has been left behind during fire drills. She has also asked for a bed shaker to alarm her when sleeping, to no avail. She has also requested a vibrating watch for announcements of mealtime, medications, etc., so that she does not miss them.

Additional commentary on named plaintiffs who have been released:

Commentary on Leonard Briggs (Age: 83; previously incarcerated at Souza Baranowski Correctional Center; MCI-Shirley; MCI-Pondville)

Leonard Briggs is 83 years old and has been profoundly deaf his entire life. He is the only named plaintiff who does not wear hearing aids. His first language is British Sign Language. He learned ASL when he moved to the United States as an adult. Like many bilingual/bimodal signers with a strong first language foundation in a signed language (in this case BSL), Mr. Briggs has mastered his second signed language (ASL) with near-native to native proficiency. I assessed Mr. Briggs' ASL by viewing video footage of his deposition that took place at MCI Shirley. Review of this deposition gave me sufficient data to determine definitively that his signing is grammatically rich and he is very articulate. He produced all but one of the target ASL forms in the video footage of the first day of his deposition and covered them all in the second. His signing

includes sophisticated use of space, classifiers, ASL aspectual morphology, facial grammar marking (topics, questions, conditionals, relative clauses, direct and indirect address, etc.) at both the adverbial and sentence level, and he has an adult-level vocabulary in ASL. In addition, he uses spatial aspects of grammar at a sophisticated discourse level with a range of cohesion markers and natural prosody and phrasing. In addition, he has excellent comprehension skills and uses back channeling very effectively. He was in DOC custody for over 15 years and was released last April.

While I was unable to do a formal assessment, there were several examples of Mr. Briggs reading written materials presented to him during the deposition. He can read some, but he tends to read more word by word than utterance by utterance. His vocabulary caps at the level of words like *access*. I would roughly place his reading around a third—to fourth-grade level. His writing is weak. He is in the habit of having others write for him. This includes both help from other prisoners as well as having prison personnel (staff and administrators) fill in forms for him—not out of desire, but because of a lack of communication access that would allow him to do this for himself. Once others take over, his is unable to communicate to them the depth of information he wished to convey or elicit and is unable to monitor the fidelity of the information communicated in his name. This appears to have been true from his entry into the system, but this dependency has become even more prevalent as the result of worsening vision problems and arthritis that compromise both his reading and writing. He may have slight memory issues tied to old age, but, overall, he presents as "sharp as a tack." However, he also presented in the deposition as withdrawn and resigned to a lack of access and a sense that, after years of requesting accommodations with little result, attempts are futile.

Commentary on Eric Roldan (Age: 32; previously incarcerated at NCCI Gardner, Massachusetts Treatment Center, MCI-Cedar Junction)

Eric Roldan was 31 at the time of the first deposition I observed. At that deposition, ASL/English interpretation was provided by a team of two Deaf and two Hearing interpreters. On the video footage, he is slow to process signing and requests frequent clarification and repetition. He was born completely deaf in his left ear and barely able to hear in his right ear. He cannot understand people talking to him; he testified to comprehending only a tiny bit of speech when using his hearing aids. Without his hearing aids he cannot hear at all. He attended a school for the Deaf and graduated high school at the Horace Mann School for the Deaf. He has never been employed, except for a few months in the kitchen at a nursing home that his mother also worked at. He left because he couldn't handle the non-Deaf and non-signing environment. He also did kitchen work in prison. Mr. Roldan has no speech and

negligible lipreading ability. His reading and writing are limited by lack of mastery of English.

Mr. Roldan is reported to have cognitive limitations. (BRIGGS_00001687-BRIGGS_00001797). What I see in the deposition is slow processing of information and expressive and receptive limitations in ASL as well as limited reading ability, which he attempts to cover up. With the data I have access to, I am seeing a more profound effect of language deprivation and perhaps social isolation than I see cognitive deficits in general. Language access for him definitely needs a Deaf/Hearing team of interpreters. Mr. Roldan's receptive signing is not strong, but he does request clarification frequently. Mr. Roldan's expressive signing is also not strong. He does not have mastery of ASL grammar. His expressive signing does not demonstrate characteristic ASL features. Instead, for the most part, it involves a stringing together of uninflected lexical signs.

[gesture: palms up] NOT ABOUT CONTACT ONLY LIMIT LIMIT WIN/TAKE-ADVANTAGE-OF DOCTOR TALK WITH IX3p[points to lawyer WHAT PRISON HERE WHAT NEED BECAUSE SUE REASON

My tentative interpretation of the text above: "I did talk to them about things that I needed here. It was limited to being able to take advantage of the opportunity to talk with a doctor. We talked about what was needed in the prison and my reason for suing."

Linguistic competency entails the ability to convey information in the language in question using the rule-governed grammar of that language in a way that other users of that language can understand from the language provided. Mr. Roldan's signing is not governed by the rule-governed language conventions shared among proficient users of ASL. He had many features in his communication that suggest serious language deprivation. He has shared ASL vocabulary, but not ASL syntax or English. His syntax is more of a self-developed set of strategies for getting content information out on the table without the syntactic language proficiency to do so in a language. We do not see the spatial agreement, person agreement, syntactic word order conventions or facial marking of syntactic constructions like questions, conditionals, quotations, etc. He is putting out a laundry list of information that the interlocutor may or may not be able to use to guess at what he is trying to say. Staff at the prison or in medical settings cannot be expected to glean a reliable message from this "bag of content words." Without careful attention to this fact, they are actually likely to sometimes hit the right message, but many times assume that they understood a message when understanding was highly skewed, even opposite.

The kind of communication exemplified above (which is seen throughout Mr. Roldan's signing) is precisely the kind of communication that professional Deaf interpreters and visual gestural specialists are uniquely qualified to navigate and negotiate meaning from. To do so, they need to make inferences about the target and, in a back and forth dialogue with Mr. Roldan, can verify or disconfirm their interpretations. This process was seen in the depositions. It needs to be slow and painstaking to allow for effective communication. Without due diligence the final interpretation can be skewed.

Of the named plaintiffs, Mr. Roldan is the least linguistically and cognitively adept. There is no evidence of ASL grammar use (classifieds, Size and Shape Specifiers, verbs of motion and location). I did see evidence of questions (both yes/no and who, what, where, how questions). He uses syntactic facial marking for yes/no questions, wh-questions and conditional, but the spreading over sentence domains is inconsistent. His signed communication is a stringing together of signs and phrases in somewhat formulaic word order. Without systematic grammar, interpreters need to infer the intended meaning and confirm his intentions. They also need to regularly probe for understanding of information conveyed. While lexical signs are conceptually accurate, Mr. Roldan's signing is underdeveloped and atypical. He cannot achieve reliable communication access without special adaptations, which are typically best achieved in using a team of a Deaf and hearing interpreter.

Mr. Roldan's written English is also not fully developed. I have analyzed the correspondence called "Roldan Letter to Superintendent March 2018.pdf." (BRIGGS_00001941). First, it should be noted that the letter sent to him on February 18, 2018 from the Sex Offender Registry Board is vastly above the reading level of Mr. Roldan and actually says on the second page: "Attention: This document is important and should be translated immediately." It appears it was not. A Flesh-Kincaid Readability Test of this document placed it at a twelfth-grade level, well about anything that Mr. Roldan could possibly read:

> The Sex Offender Registry has determined your final classification level to be Level 3.
>
> You are required to register within 2 calendar days from the receipt of this notice. If you are incarcerated at the time of receipt of this notice you are required to register 2 days prior to your release from custody. Failing to do so may result in criminal complaints.
>
> If you live in Massachusetts, you must register at the local police department where you live. If you live in another state and work in Massachusetts, you must register at the local police department where you work. If you live in another state and have a secondary address or attnd an institution of higher learning in Massachusetts, you must register at that police department having jurisdiction over that location. The police department will take your registration information, including a photograph and fingerprints.

As a Level 3 offender:

- Information about you will be posted in the media, on websites, and provided to location where people are likely to encounter you.
- You will have to verify your registration information annually at the police department. Homeless offenders must verify information every 30 days at the police department.
- You will have to comply with the provisions of the sex offender registry law, M.G.L. c. 6 §§ 178C through 178Q.
- You are further advised that, in accordance with federal law, you must report any international travel to your registration official no less than 21 days prior to travel. Failure to do so may result in federal prosecution.

You will be prosecuted for violating the law and are subject to potential reclassification if you knowingly:

- Fail to register;
- Fail to verify registration information
- Fail to provide notice of change of address or place of employment; to
- Provide false information

The above text is filled with passives, nominalizations, complex adjective structures as well as a twelfth-grade vocabulary. Mr. Roldan could not read this.

Mr. Roldan's writing involves amalgams of phrasing from English as well as a handful of formulaic sentence patterns. The most dominant pattern involves sentences starting with "I…": *I need help…; I need saical work…; I need paper show me where live,* etc. Questions precede that type of sentence with a question word*: where I should live?; How I'm pay rent, shopping, cooking, washing clothing; How I get work; How I don't to work*? etc. The one case where this question pattern isn't followed is actually a direct mapping of the ASL order: *Now live where?* In discourse terms, using writing equals asking for things. There is no other conveying of information. To understand Mr. Roldan's writing, we need to look at not only what he can write, but also what he doesn't write. He is limited to writing using the bag of pre-canned frame that he has developed for writing.

Another thing that appears to reflect ASL patterns is the lack of overt pronouns in subject position, especially when the subject is not "I." Ironically, dropping the subject is almost obligatory in ASL as when it is "I" (first person). These missing sentence components are more reflective of his lack of grammar than his reliance on ASL grammar.

Mr. Roldan's reading level is low.

Another strategy he has utilized is to copy things from letters that he has received from someone. For example:

> Becky,
> Give a paper on February 26, 2018 There is no interpreter for me Because understand her? And Paper from S.O.R.B Can't understand level 3 Paper not become back in Prison.

He copies what he can, but doesn't have the capacity to even convert that information into a readable form.

Requiring Mr. Roldan to navigate life in prison primarily in written English, as appears to have been the expectation by DOC, was not reasonable.

VII. TECHNOLOGY: ACCOMMODATIONS FOR HEARING LOSS AND THE SEQUELAE OF HEARING LOSS

The concept of universal design and universal access is not new. Universal design is the design of buildings, products, and environments to be accessible to all people regardless of age, disability or other factors. It predates even the seminal work on the subject by Selwyn Goldsmith (1963), *Designing for the Disabled*. The ADA became law in 1990. Its full title says everything: "An act to establish a clear and comprehensive prohibition of discrimination on the basis of disability." 42 U.S.C. §§ 12181 *et seq.* A concept advocated for a half a century and legislated for almost thirty years has been slow to take root, partially because changing infrastructure is a slow process.

It is not hard to predict that a Deaf student might apply to a university. Since Deaf university students matriculate along with hearing students, a system is in place to accommodate their need of interpreting services. It is also not hard to predict that a Deaf person might become involved in the criminal justice system and go to prison. It doesn't mean that an interpreter gets hired for every unit just in case, but there needs to be *a plan* to provide necessary accommodations as the situation arises.

The lack of infrastructure does not excuse public agencies, including DOC, from having *a plan* for accommodation – even if on an as-needed scale until resources can be obtained; nor does it excuse not having an established means of sharing information and protocol regarding how to initiate, implement, and maintain that plan. Most importantly, the lack of infrastructure does not excuse a public agency's obligations to

provide equal access to its programs, services, and activities to people who are deaf or hard of hearing.

A. DOC's Current Emergency Alarm Systems and Evacuation Procedures

Emergency alarms systems vary in DOC facilities. While all facilities have at least one unit with emergency alarms that include audio and visual strobe components, only one facility – Souza-Baranowski Correctional Center – has in-cell visual alarms in its housing units.

Based on the documents I have reviewed, in the absence of visual alarms, DOC's practice for alerting Deaf and hard-of-hearing prisoners of emergencies relies on a combination of audible emergency alarms, DOC correctional officers, and/or hearing prisoners. (*See, e.g.*, O'Gara Tr. 309-12). When an emergency alarm sounds, DOC correctional officers are tasked with going cell to cell to make sure that all prisoners are evacuated from their cells. (*See* O'Gara Tr. at 326). DOC correctional officers are supposed to provide additional evacuation assistance as necessary to Deaf and hard of hearing prisoners who have a "red dot" on their bed book card, which is intended to notify staff that they may need additional assistance during an evacuation. (*See* O'Gara Tr. at 322). According to DOC, the expectation is that, with this notification, correctional officers will retrieve the identified Deaf and hard of hearing prisoners in the event of a fire drill or actual emergency. (*See* O'Gara Tr. at 321-26).

Based on my thirty-five years of experience, my assessments of the named plaintiffs, and my review of documents provided to me (listed in Appendix B), I believe that DOC's current system is an ineffective and unreliable means of alerting Deaf and hard-of-hearing prisoners of emergencies. Although the prisoners I interviewed have audiological and linguistic differences from the general DOC prisoner population that are not completely identical, there are a number of common issues across all Deaf and hard-of-hearing prisoners related to their need for visual accommodations in order to provide them with effective access to emergency notifications. The lack of automatic visual alarms and/or signaling devices in cases of emergencies poses serious and potentially fatal risks for Deaf and hard-of-hearing prisoners. The absence of visual alarms means that Deaf and some hard-of-hearing prisoners are unable to respond to calls/counts on their own and with the same level of swiftness as non-Deaf prisoners.

i. Experiences of Deaf and Hard of Hearing Prisoners with DOC's Current Notification Systems

The ineffectiveness and inherent unreliability of the current system is borne out by the accounts of the named plaintiffs, whose experiences indicate that not only do correctional officers fail to notify them, but they have been left behind during evacuations of their units during fire drills across multiple facilities. When this has occurred, Deaf and hard-of-hearing prisoners have been unable to hear the audible alarm and verbal notification accessible to other prisoners and have not been informed by correctional officers or hearing prisoners—a situation that could be fatal in the event of an actual fire. While correctional officers may ultimately realize their failure to evacuate a Deaf and hard-of-hearing prisoner in the course of drills and go back for them, DOC is unlikely to get a second chance to evacuate those who are left behind in the event of a real emergency.

Mr. Jimenez reported that he was left behind during fire drills on two separate occasions—once when he was incarcerated at Bay State Correctional Center ("BSCC") and once when he was incarcerated at MCI-Norfolk. (Jimenez Tr. at 18-22; *see also* Rolando Jimenez's Objections and Responses to DOC's First Set of Interrogatories [Jimenez Interrogatories], at 4 ("Without two functioning hearing aids, Mr. Jimenez cannot distinguish between the various alarms and notifications used at MCI-Norfolk; he has missed…emergency announcements, and has been left behind during an emergency fire drill.")). When he was left behind at BSCC, Mr. Jimenez was in his cell where no visual alarms are located or visible. (Jimenez Tr. at 19). At the time, Mr. Jimenez had removed his hearing aids to let them dry because they had grown damp due to the humidity in his cell. (Jimenez Tr. at 21). As a result, Mr. Jimenez could not hear the audible alarm sound and was unaware that other prisoners were evacuated because he was not made aware of the existence of an emergency by a correctional officer or hearing prisoner. (*Id.).* After all other prisoners were evacuated, a correctional officer entered Mr. Jimenez's cell "screaming, saying that . . . [Mr. Jimenez] did not hear the alarm and to go outside, that there was a fire drill." (*Id. a*t 19).

When Mr. Jimenez was left behind at MCI-Norfolk, he was cleaning his cell where no visual alarms were located or visible. (*Id.* at 20). As was the case when he was left behind at BSCC, Mr. Jimenez was not wearing his hearing aids because he was letting them dry. (*Id.* at 21). As a result, he could not hear the audible fire alarm sounding and was unaware that other prisoners had evacuated because nobody informed him. (*Id.* at 21). Eventually, another prisoner found Mr. Jimenez and was able to somehow relay that Mr. Jimenez needed to go outside because a fire drill was occurring. (*Id.* at 20).

Mr. McGowan reported that he was nearly left behind during fire drills several times while incarcerated at MTC. (McGowan Tr. 85-87; *see also* Francis McGowan's

Objections and Responses to DOC's First Set of Interrogatories [McGowan Interrogatories], at 19 ("When there are alarms in Mr. McGowan's facility, it is indicated by a sound alarm and small flashing lights which are not visible from his cell. As a result, Mr. McGowan is often unaware when the alarms go off. In addition, he cannot hear or understand many of the emergency . . . announcements."). On these occasions, Mr. McGowan had been located in places without visual emergency alarms. (McGowan Tr. at 85). He could not hear the audible alarms sounding and was not informed to evacuate by correctional officers. (*See id.).* He explained that he was one of the last to be evacuated and only understood what was going on because he saw "people running outside" so he followed them. (*Id.* at 86).

Ms. Ward has reported being left behind during fire drills at MCI-Framingham. (*See* Ward Tr. at 116-18; *see also* Plaintiff Jennifer Ward's Supplemental Objections and Responses to DOC's Interrogatories [Ward Supplemental Interrogatories], Nos. 1-7 ("She has missed announcements for…fire alarms" because she is "currently unable to hear anything when she has removed her hearing aids.")) During one such incident, Ms. Ward was in her cell and had taken her hearing aids off because they were not functioning properly. (Ward Tr. at 117). Ms. Ward was unable to hear the audible alarm sound and was therefore unaware of the existence of an emergency because no visual alarms were located in or visible from her cell and no correctional officers or other prisoners so informed her. (*Id.* at 112-13, 117.) After all other prisoners had been evacuated, two correctional officers returned to Ms. Ward's cell, explained that a fire drill had occurred, and "started yelling at [her] because [she] didn't hear the alarm." (*Id.* at 117). Ms. Ward also reported during her assessment that she had been left behind during another fire drill in or around April of 2019.

Mr. Markham reported that he was left behind or nearly left behind during fire drills on four separate occasions—twice when he was incarcerated at MCI-Norfolk and twice while at MTC. (Markham Tr. at 92-94 ("I could have died in a fire, if I didn't know" about the existence of an emergency); *see also* Plaintiff Louis Markham's Objections and Responses to DOC's First Set of Interrogatories [Markham Interrogatories], at 20 ("Even with his hearing aid in, whether he can hear an alarm depends on how close he is to it."). During both incidents at MCI-Norfolk, Mr. Markham was in his cell where no visual alarms were located or visible. (Markham Tr., at 93). On both occasions, Mr. Markham was unable to hear the audible alarm sound and was not informed to evacuate by correctional officers. (Markham Tr. at 93). During one incident, he was one of the last prisoners to evacuate the building and was informed to do so by another Deaf prisoner. (*Id.*). During the second incident, Mr. Markham was left behind and was found and escorted outside by a firefighter doing a sweep of the building. (*Id.* at 94). Mr. Markham reported that he was terrified because

he was unsure of whether there was a real emergency and the correctional officers laughed at his concerns. (*Id.* at 96).

During both incidents at MTC, Mr. Markham was in the showers, where no visual alarms are located or visible, when a fire drill occurred. (Markham Tr. at 98-100). He remained in the shower while others were evacuating because he could not hear the audible alarm and was not informed to evacuate by correctional officers. (*Id*. at 101; *see also* Markham Interrogatories, at 20 ("Twice in 2014, he was left behind in the shower room of his unit at MTC during fire drills.")). On one of these occasions, when the correctional officers found Mr. Markham, they had already locked down the unit because they thought all prisoners had been evacuated. (Markham Tr. at 101). The correctional officers then had to spend additional time undoing the lock on the unit to allow Mr. Markham to leave. (*Id.*). Notably, during a meeting with MTC administrators in December 2017, Mr. Markham raised his need for visual alarms in the shower area and in his cells, because he relied on his cellmate for notifications. (*Id.* at 159-60). Despite his limited ability to communicate in English and the fact that the correctional officers have an obligation to proactively notify him, Mr. Markham was directed to inform the correctional officers via written note when he went to the shower or bathroom, and when he was alone in his cell, that they needed to alert him if there was a fire. (*See Id.*).

Mr. Skinder reported that he was left behind during a fire drill at MCI-Shirley. (Skinder Tr. at 65-67; *see also* George Skinder's Objections and Response to DOC's First Set of Interrogatories [Skinder Interrogatories], at 15 ("[O]n numerous occasions [Mr. Skinder] informed correctional and medical staff that he could not hear announcements due to his disability – including emergency announcements and fire alarms – and that he was afraid for his safety.")). During this incident, Mr. Skinder was not wearing his hearing aids because he was sleeping in his cell. (*See* Skinder Tr. at 65-67). He was unable to hear the audible alarm and no correctional officer instructed him to evacuate. As a result, he remained on his unit while most other prisoners were evacuated. (*Id.*). After performing a head count, the correctional officers realized that Mr. Skinder had not been evacuated and they returned to the unit to find him, upon which they "kick[ed] his bed" to wake him up and evacuate him. (*Id.*).

Mr. Briggs reported being left behind during a fire drill when he was incarcerated at MCI-Shirley. (*See* Briggs Tr. at 198-202 ("in a real fire, I would be the first person to die because there's nothing warning me that there's a fire"); *see also* Leonard Briggs' Objections and Responses to DOC's First Set of Interrogatories [Briggs Interrogatories], at 19 ("On one occasion when the fire alarm sounded, all of the staff and prisoners in his unit evacuated and locked the door behind them; eventually a

correctional officer came back into the unit to get him.")). Mr. Briggs reported that he had to rely exclusively on other prisoners to inform him about emergency situations and that a correctional officer had never instructed him to evacuate during a fire alarm. (Briggs Tr. at 148). During the incident in which he was left behind, Mr. Briggs was in his cell, where visual alarms are not located or visible, and did not hear the audible alarm sound. (*Id.* at 199, 148). As no correctional officers or other prisoners informed Mr. Briggs of an emergency situation, he remained in his cell and did not evacuate. (*Id.* at 199). Once everyone had been evacuated, a correctional officer returned to the unit and found Mr. Briggs, upon which he began "mouthing" and "gesturing" that "everybody [was] out of the building." (*Id.*)

Mr. Roldan was either nearly left behind or actually left behind during fire drills on three separate occasions—once while he was incarcerated at Bridgewater State Hospital, once while at MTC, and once while at NCCI-Gardner. (*See* Roldan Tr. at 146-49 (describing being left behind at Bridgewater State Hospital); *see also* Eric Roldan's Objections and Responses to DOC's First Set of Interrogatories ["Roldan Interrogatories"], at 7 (describing incidents at MTC and NCCI-Gardner)). At Bridgewater State Hospital, Mr. Roldan was in the shower, where no visual alarms are located or visible, and was unable to hear the audible fire alarm sounding. (Roldan Tr. at 148). As no correctional officers instructed him to evacuate, he remained in the shower while all other prisoners evacuated. (Roldan Tr. at 148-49). When he finished his shower, a correctional officer found him and escorted him outside. At MTC, Mr. Roldan was similarly left behind while taking a shower. (*See* Roldan Interrogatories, at 7). At NCCI Gardner, Mr. Roldan was cleaning his room, where no visual alarms were located or visible, and could not hear the "loud bell alarm" signaling a fire drill. (*Id.*). He did not immediately evacuate because he was not informed to do so by a correctional officer. (*Id.*). However, he ultimately determined that he needed to evacuate because he sensed something was wrong, went to the door of his cell, and saw others evacuating. (*Id.*).

In essence, an emergency notification system that relies on a combination of only audible alarms and spoken English instructions from correctional officers and/or hearing prisoners has and will continue to create foreseeable problems for Deaf and hard-of-hearing prisoners in DOC. Without an automatic alarm system with visual or tactile components, this population will not be effectively or reliably alerted concerning drills and emergencies. Individuals who are able to wear hearing aids must inevitably take them off. Therefore, even for those whose hearing aids allow them to hear and understand the audio components of the current system – the tone from the alarm and announcements from staff – they will not be able to access it at all times due to their hearing disabilities. For those who cannot hear the audio components, with or without

hearing aids, reliance on the correctional officers to retrieve Deaf and hard-of-hearing prisoners is not a safe substitute. First, it places the safety of the deaf and hard-of-hearing prisoners in the hands of correctional officers who do not reliably follow through with the directives of current policies and procedures, as evidenced by plaintiffs' experiences. This is even more likely when a correctional officer is faced with the stress of maintaining his or her own safety and evacuating an entire unit during an actual fire or other emergency. Second, assuming correctional officers do in fact attempt to communicate an oral message to Deaf and hard-of-hearing prisoners in response to an emergency alarm, the likelihood that ideal environmental conditions for lipreading is incredibly low and the stress of the circumstances will negatively affect comprehension.

ii. Inadequacies in DOC's Current Emergency Systems and Potential Accommodations to Address Them

Based on the foregoing, it is my opinion that DOC's current emergency notification system is inadequate for several reasons. First, Deaf and hard-of-hearing prisoners cannot dependably hear audible alarms and thus cannot be expected to rely on them to be notified of an emergency. Although some prisoners may be aware of a sound being made some of the time, my assessments and review of prisoner reports revealed that they consistently cannot determine where the sound is coming from or what it is meant to signify.

Second, DOC's current emergency notification system requires Deaf and hard-of-hearing prisoners to rely exclusively on correctional officers and/or hearing prisoners to be made aware of emergencies, which, as evidenced by the fact that Deaf and hard-of-hearing prisoners are routinely left behind during fire drills, has proven to be an ineffective and unreliable system. Regardless of the sufficiency of DOC's policies and procedures in the abstract, in practice, correctional officers consistently fail to assist Deaf and hard-of-hearing prisoners or even alert them of the need to evacuate.

Third, DOC's emergency notification system does not provide Deaf and hard-of-hearing prisoners with equivalent access to emergency notifications as that provided to hearing prisoners. Hearing prisoners are able to hear audible alarms and instructions shouted by correctional officers during emergency situations. By contrast, Deaf and hard-of-hearing prisoners have no visually equivalent measures to independently alert them of the same situations, such that they are unable to respond to alarms on their own and with the same level of swiftness as hearing prisoners. Accordingly, these individuals lack equivalent access to potentially life-saving information that is provided to prisoners who are not Deaf or hard-of-hearing.

As DOC is unable to dependably evacuate Deaf and hard-of-hearing prisoners during even mock emergency situations, there is a low likelihood that such individuals would be safely and reliably evacuated during the chaos of an actual emergency without the installation of visual alarms. To correct this problem, I believe that DOC must install visual alarms in all common areas—including visiting areas, medical areas, employment areas, classroom areas, library areas, and showers—and inside cells housing Deaf or hard-of-hearing prisoners. DOC should also consider providing tactile vibrating devices that would physically notify Deaf and hard-of-hearing prisoners of emergencies when they are sitting in bed or asleep as well as flashing lighted message boards to provide text announcements. In addition to better preserving their safety and providing effective access to emergency notifications, these accommodations would afford Deaf and hard-of-hearing prisoners greater independence.

Visual emergency alarms are commonly and effectively utilized by Deaf and hard-of-hearing individuals throughout the world. It is my opinion that the installation of visual emergency alarms in the manner specified above would provide Deaf and hard-of-hearing prisoners with equal and effective access to emergency notifications.

VIII. CONCLUSION AND EXPERT OPINION

The inability to hear has social and linguistic impacts. It socially and linguistically isolates individuals from the dominant hearing population who communicate most naturally and freely via an auditory modality—speech and hearing. The general hearing population often fails to understand that effective communication with Deaf and hard-of-hearing people requires that one needs to provide visual communication access, such as facing a person directly if speaking (depending upon lipreading ability), visual messaging systems (depending upon reading ability), using visual signals and alarms, as well as provision of sign language interpreters when needed.

Individuals who are members of the American Deaf Community are a recognized linguistic and cultural minority and do have their own language and culture that is different from that of the general hearing population. Use of ASL determines membership in this cultural minority. Members of the dominant culture here in the U.S. tend to have stereotypic misconceptions about Deaf people and ASL, often believing that Deaf people can lipread with a degree of accuracy that will enable meaningful communication, when, in reality, the level of lipreading accuracy for most Deaf people is 30% at best. Even individuals who are hard of hearing struggle with lipreading because of the cognitively intensive and cumulatively error-inducing nature of

predicting from only the visual information (one-third) one of at least three possible phonemic targets (/p/ vs. /b/ vs. /m/; /t/ vs. /d/ vs. /n/, etc.) once assembled an even larger and less predictable set of target words.

People who can hear also often assume that if a Deaf person's speech is understandable, then speech to that person is understandable or even that that individual is not deaf. This is also not true. Some Deaf people can hear their own voice, but not the voices of others. Others may have developed speech before losing their hearing. In summary, intelligible speech does not imply good hearing.

People who can hear often believe that Deaf people can read and write in fluent English when, in reality, the average Deaf person reads at approximately a fourth-grade reading level. On the other hand, when people encounter a Deaf person with strong reading and/or writing skills, it is important to recognize that they still cannot hear speech or auditory alarms. Writing back and forth is cumbersome and unnatural. One need only self-reflect on those situations in which one would be willing to receive and transmit information only through reading and writing to get an idea of those situations where, even if open to the idea and capable, all interlocutors would be willing to give the time and attention to communicating in this slow, time-consuming, and non-spontaneous way. Hearing English users are accustomed to relying upon the fluid, spontaneous means of communicating via speech. It is the modality to which our language is most suited and in which our language is most easily and efficiently transmitted. Most of the time (except when an individual cannot hear) spoken English provides individuals an even playing field because it doesn't rely upon individual factors like literacy, which may or may not be in an individual's mastery. However, when our fall back mode for our "go to" language mode does not work, we can easily become impatient and frustrated and this impacts the interaction as well. For a Deaf ASL signer, the fluid, spontaneous flow of communication mentioned above only happens in their primary and preferred language, ASL. For them communicating via English is already cumbersome, frustrating, and on top of that fraught with error and misunderstanding. Combine with the frustration felt on both sides, communication becomes a negative experience for all.

These erroneous, stereotypic beliefs about and attitudes toward Deaf and hard-of-hearing people frequently result in systematic discrimination against them. Such discrimination, known as *audism*, occurs when those who are not Deaf assume that communicating via auditory means is the norm—expected, natural, normal. Deaf people are perceived as violating that norm and viewed as inferior because of their different hearing status when access to environments, technology, institutions, and programs is predicated upon one's ability to hear. Our hearing-oriented society and

culture comes with heavily ingrained expectations that things will meet our auditory needs and we become frustrated when those needs go unmet. There is little unspoken expectation that a Deaf individual's visual needs also need to be met. This is why we have laws specifying the need for accommodations. Simply put, the failure to provide visual access to aspects of society that are only auditorily accessible is a form of audism.

In my expert opinion, based upon my experience with the Deaf population in the U.S. of over four decades, my visits to DOC facilities, my review of written documentation, my interviews with named plaintiffs (Jimenez Sanchez, Markham, McGowan, Skinder, and Ward) in April 2019 and my review of videotaped depositions (Leonard Briggs and Eric Roldan), I believe that, in terms of access to the services and technology that make effective communication possible, Deaf and hard-of-hearing prisoners in the DOC have not received the same level of communication access available to prisoners who can hear. Furthermore, the communication access that they have received is inadequate for their needs. DOC has restricted access to services, programs, and communication in a way that denies meaningful and effective communicative access for DOC Deaf and hard-of-hearing prisoners.

The policies and procedures in place have unfairly and unnecessarily treated Deaf and hard-of-hearing DOC prisoners differently than prisoners without hearing loss and denied them effective access to services, programs, and benefits that are afforded to the general prison population. Furthermore, from the interviews and materials I have reviewed, these inadequacies appear to have been system-wide. In sum, in my expert opinion, DOC has engaged in audist practices. Some of the needed changes below have already been made or agreed to. My understanding is that long deliberations have resulted in some changes and some planned changes. What remains in contention is the provision of adequate visual alarms. However, since the accommodations will be the subject of further monitoring and review, I am including them all here.

To ensure effective communication, as well as the physical safety of Deaf and hard-of-hearing prisoners, DOC must, minimally, undertake the following major steps.

A. In my expert opinion and based upon my review of records and assessments and interviews with plaintiffs, in order to ensure that Deaf and hard-of-hearing prisoners are notified of alarms or institutional emergencies at DOC facilities, DOC must install visual strobe alarms inside of each Deaf and hard-of-hearing prisoner's cell in addition to common areas, which should include bathroom and shower areas. DOC should also determine the availability and suitability of devices that provide tactile/vibratory notifications for all prisoners with sensorial

disabilities with a plan in place for provision as needed. In addition, I would recommend installation of flashing lighted message boards inside each Deaf and hard-of-hearing prisoners' cell, as well as lighted message boards that are clearly visible in regularly frequented common areas (e.g., television viewing areas). In my expert opinion, it is not sufficient to rely only upon other prisoners or staff informing Deaf prisoners in emergencies, nor is it appropriate to assume that Deaf individuals will watch other prisoners and "follow the flow." Such a "let the Deaf prisoner know" or "let the Deaf prisoner figure it out for themselves" procedure has already failed in numerous experiences reported.

B. In my expert opinion and based upon my review of records, and assessments and interviews with plaintiffs, DOC should consider consolidating Deaf and hard-of-hearing prisoners at a smaller number of DOC facilities. This would result in cost savings by achieving economy of scale in providing ready communicative access to Deaf and hard-of-hearing prisoners. However, a prisoner must not be transferred to a consolidated facility based on his or her audiological status, absent the prisoner's consent. I have heard arguments regarding resistance to this policy that include a fear that this would allow prisoners to communicate without staff understanding. Clearly there are times when Spanish speakers or Arabic speakers communicate in their mother tongue. Deaf prisoners have an equal right. Linguistic isolation is beyond the punitive measures imposed and leads to cognitive and linguistic decline.

C. In my expert opinion and based upon my review of records and assessments and interviews with plaintiffs, in order to enable Deaf and hard-of-hearing prisoners to communicate effectively with others at DOC facilities, including for the purposes of accessing DOC programs and services, DOC must reliably provide Deaf and hard-of-hearing prisoners with qualified sign language interpreters and other auxiliary aids to facilitate effective communication access.

D. In my expert opinion and based upon my review of records and assessments and interviews with plaintiffs, in order to enable Deaf and hard-of-hearing prisoners to communicate effectively with others outside of DOC facilities, DOC must provide Deaf and hard-of-hearing prisoners with access to working Videophones/Video Relay Services with sufficient signal resolution. Furthermore, in addition to VP and VRS, if functionally appropriate for the individual, a CapTel phone must be provided. With a prison population in which the majority of deaf and hard-of-hearing individuals do not sign, the availability of CapTel phones is particularly important. DOC must also have policies in place that ensure that the availability (in terms of location and times)

of appropriate telecommunications devices for Deaf and hard-of-hearing prisoners is equivalent in availability to telephone access for prisoners who are not Deaf or hard of hearing. Independent of specific preferences and needs at the moment, DOC needs a plan and resources available to assure that as the needs of the Deaf prisoner population changes there is flexibility in resources to meet their needs.

E. In my expert opinion and based upon my review of records and assessments and interviews with plaintiff, DOC must review all of its policies and procedures to ensure that Deaf and hard-of-hearing prisoners are not systematically disadvantaged relative to prisoners who are not Deaf or hard of hearing.

F. In my expert opinion and based upon my review of records and assessments and interviews with plaintiff, DOC must require mandatory regular training/orientation sessions for all DOC personnel who are responsible for or have the need to interact with Deaf and hard-of-hearing prisoners as discussed below. Specific orientation for new staff and regular refreshers needs to be implemented.

G. In my expert opinion and based upon my review of records, and assessments and interviews with plaintiffs, DOC must implement a system of intake for Deaf and hard-of-hearing prisoners that includes identification of their etiology (where possible) and nature and degree of hearing loss as well as any other concurrent medical or physical issues that may affect accommodation for that loss (vision problems, physical restrictions to the limbs and face, memory problems, language deprivation, medications affecting visual processing and gestural expression (many neuroleptics, etc.), Parkinson disease, etc.). A communication plan and file needs to be in place with a summary of communication information that can be shared with interpreters or other providers contacting interpreters. This plan must be developed with input from the prisoners themselves and attention needs to be paid to factor affecting communication such as viability of hearing aids and compatibility with other technology, visual correction, regular med checks for vision and mobility issues, etc.

H. In my expert opinion and based upon my review of records, and assessments and interviews with plaintiffs, it is incumbent upon DOC *to request interpreters or other appropriate accommodations* be provided by any outside service providers contracted to care for prisoners. Such needs should be included in any

paperwork to avoid unnecessary rescheduling of appointments, or worse, provision of services without accommodation.

Finally, if additional information becomes available, I expect to examine such material and to expand upon the opinions offered in this report. The ability to accommodate Deaf inmates is definitely not "one size fits all." There is a lot of heterogeneity among even the handful of named defendants in this case. What is consistent is that they all are entitled to accommodations of one sort or another.

Judy Anne Shepard-Kegl, Ph.D.

Date: August 2, 2019

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of August, 2019, a copy of the foregoing was sent via the means set forth below, to the following persons:

Timothy M. Pomarole, Esq. (by email)
Department of Correction Legal Division
70 Franklin Street, Suite 600
Boston, MA 02110

Anna Rachel Dray-Siegel, Esq. (by email)
James A. Sweeney, Esq. (by email)
Office of the Attorney General
One Ashburton Place
Boston, MA 02108

/s/ Alexandra B. Lavin
Alexandra B. Lavin