

SPECIAL REPORT

## CONFERENCES AND CONVENTION CENTRES' ACCESSIBILITY TO PEOPLE WITH DISABILITIES

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**Objective:** The purposes of this manuscript are to create awareness of problems of accessibility at meetings and conferences for people with disabilities, and to provide a checklist for organizers of conferences to make the event more accessible to people with disabilities.

**Methods:** We conducted a search of the grey literature for conference centres and venues that had recommendations for making the event more accessible. The types of disability included in this manuscript are those as a consequence of visual, hearing and mobility impairments.

**Results:** We provide a checklist to make meetings accessible to people with disabilities. The checklist is divided into sections related to event planning, venue accessibility, venue staff, invitations/registrations, greeting people with a disability, actions during the event, and suggestions for effective presenters.

**Conclusions:** The checklist can be used by prospective organizers of conferences to plan an event and to ensure inclusion and participation of people with disabilities.

**Key words:** architectural accessibility; disabled persons; congresses; conference accessibility; checklist for conference organizers; barriers; convention centers; disability.

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### INTRODUCTION

Education and entertainment provided through various events at convention centers are important part of our lives. Various types of disability including physical, visual, hearing and speech can make it difficult to access these events. It is therefore important to identify ways to make the venues and events more accessible for the person with disability.

In Canada, between 2001 and 2006 the number of people with disability rose by three quarters of a million to 4.4 million,

and 40% of the increased disability was due to aging (1). There were 74.6 million adults (32.9% of the population) in The US with one basic action difficulty or complex activity limitation in 2011 (2). In 2010, globally it was estimated that 15% of population is disabled, which is around 1 billion people (3).

There is need for information to help the host of seminars, conferences, conventions or congresses to reduce the barriers for disabled audience. This paper is intended to aid these hosts to help them identify the features that a particular venue offers and lack thereof. This checklist might also help the convention centers that are not accessible yet, guiding their management in ways to meet needs of their specific audience. This especially is important to physiatry conferences given that the specialty plays a major role in rehabilitating people with various disabilities.

### METHOD

A grey literature search method was applied. A systematic way of search was done which included referencing from websites that included Google.ca and Wikipedia. One author (JKD) performed the searches, and a second author (AF) double-checked the data.

The initial search on Google was made with the phrase 'how to make an event accessible', to gather data on various features and services required to decrease the barriers for people with disabilities. The first 8 pages (including approximately 80 hits) were screened for relevant data.

We then searched Wikipedia with the search phrase "list of convention centers" (4). Given the data on prevalence of disability, 15% of global population is disabled, therefore we limited our screening to convention centers in the cities with population over 100,000, as that would amount to significant population with disabilities in these cities. We further limited our search to convention centers in such cities in Canada, the US, Australia, UK and Ireland; given the ease of availability of literature on these countries. We confirmed the population of individual cities by searching for its demographic data on Google.ca.

Through the list of convention centers that was gathered by searching Google.ca and Wikipedia, each individual convention centers websites's was reviewed to obtain accessibility information for that particular venue. The information that was sought in each website is listed in Table I.

Information on these convention websites regarding accessibility was in point form format in no particular order or categories. Based on

Table I. Information that was extracted from each website

Before the event happens	During the event
General event planning	Greeting people with a disability: visual, deaf or hard-of-hearing, deaf and blind, speech difficulties, wheelchair bound
Specific requirements according to disabilities: visual and hearing	Signage
Venue accessibility: transportation, venue itself	Seats allocation
Venue staff: preparation and training	Staff
Inviting people to attend	Equipment
Suggestions for effective presenters	Emergency procedures
Registration forms	

the above features identified in these websites, we compiled Appendix SI<sup>1</sup>, categorizing the accessibility features under

- Event planning
- Inviting disabled people to an event
- Venue accessibility
- Venue staff
- At the event
- Suggestions for the effective presenter

Then we further sub categorized into features for specific disabilities such as visual impairment and hearing impairment. Using other guidelines (5), checklists (6) including American Disability Act guidelines (7), we compiled an integrated checklist to guide host to make their event accessible.

We also attempted to gather data on the cost effectiveness of the investments to make venue and event accessible, surveys or studies showing the satisfaction of disabled participants using Google.ca and PubMed.

## RESULTS

We found 74 websites, of these 26 were websites for people with disabilities, 36 were for requirements for venue and 4 were regarding appropriate training of staff at the venues. Based on the information collected, we then compiled the integrated checklist to guide hosts (Appendix I).

We found 36 convention centers that met our criteria (see Appendix SI, column 1). Out of the 36 distinct convention centers listed 16 are in Canada, 7 are in US, 5 are in Australia, 7 are in UK and 1 is in Ireland.

We were unable to find cost effectiveness of these investments, surveys or studies showing the satisfaction of disabled participants.

## DISCUSSION

It is important to include people with disabilities at educational and entertainment events. As the population of disabled people rises it is important for the hosts of seminars, conferences,

conventions and congresses to be able to reduce barriers for their targeted audience. Through search of various guidelines including American Disability Act guidelines, we compiled a checklist that can help hosts of events evaluate a particular venue. We also noted lack of accessibility information on websites of many convention centers.

A common criticism of grey literature search is that it may be incomplete or inaccurate, however, our team took the steps to ensure that the minimum relevant information is included in the checklist to make it applicable to real world circumstances. We have compiled a checklist to help the hosts of various events evaluate venues in regards to their accessibility services. It is important to note that we have not included other disabilities such as obesity, learning disabilities, intellectual disabilities, etc. as the checklist to evaluate venues will be more demanding. Further we would like to conduct tests if this is a viable, feasible, practical or an effective tool.

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## APPENDIX I. Checklist to make meetings accessible to people with disabilities

## EVENT PLANNING

## General:

The following are minimum questions that should be asked, if the event requires:

- Braille.
- An induction loop.
- Documents printed with large font size and good contrast.
- Wheelchair access.
- Sign language interpreter.
- Parking for disabled people.
- On the information sheets include accessibility symbols.
- Check websites that are being used for advertisement to meet the relevant accessibility standards.
- Provide contact information to attendees for more information and training staff to be able to answer or seek information about accessibility.

## Specific requirements according to disabilities

## Visual impairment:

- Provide the material to be presented in Braille, large fonts or audio narration.
- Confirm the availability of audio described version during video presentation.
- Show people when there is a change in elevation or surface.
- Signage of directions, restrooms, meeting rooms and elevators in Braille.

## Hearing impairment:

- Availability of induction loops.
- Availability of English/American Sign Language interpreters or computerized note taker / real time captioning, if these services have been requested.
- During video presentation, make subtitles available or overlay with sign language.
- Palantypist availability for presentation on request.

## ASSESS VENUE ACCESSIBILITY

## Transport to location:

- Consider transport options for getting to the venue, if they are accessible for people with disabilities.
- Determine the location and approximate distance for nearest accessible parking.
- Make sure that wheelchair access is via the main entrance.
- Signage to show and direct people to the safe and accessible entrances to venue.
- Consider if all areas of venue are easily accessible to people with a disability such as registration desk, auditorium, stage, etc. or have staff available for assistance.
- Preferably, elevators should have low buttons for wheelchair users, Braille/ raised number markings or audible floor announcements for people with visual impairment floor indicators for people who have hearing impairment.

## Making the location accessible:

- Consider space for wheelchair and scooter users.
- Wide aisles are preferable.
- Includes accessible areas interspersed throughout the room – front, middle and back.
- Good lighting (bright, without glare and allows for adjustment).
- Consider visibility of stage if used.
- Consider acoustics for people with hearing impairment.
- Consider providing seats closer to stage to people with hearing impairment.
- Availability of accessible washrooms within a reasonable distance and signage to direct people with various disabilities toward these washrooms.
- Cover electrical cables or cords that cross over aisles or pathways to make it easier for wheelchair users as well as people who use canes and walkers to traverse across them.
- Arrange for Assistive Listening Devices upon request.
- Public telephones that are accessible (i.e., with volume control, with a TTY1, and for wheelchair users, the coin slot should be 1.22 m above floor level).
- Consider allowance guide dogs in the venue.

## Specific features according to disabilities

## Visual impairment:

- Consider the signage with contrast tape or handrails or texture to show people when there are going to be a change in elevation or surface.
- Consider strong contrast between the glass door and the doorframe for people with visual impairment.

## VENUE STAFF

- Trained staff in providing assistance to people with various disabilities and respond to their needs appropriately.

## INVITING DISABLED PEOPLE TO AN EVENT

## General guidelines:

- Let people know that the meeting/conference is accessible and the features that are available for your target audience.
- Placing signs at different height e.g. 1.50 m, 2.30 m
- Let them know of any extra fees they may incur for these services.
- Check any websites that you advertise on are accessible to the relevant standards.

- Provide contact information if attendees want more information and make sure that staff can answer or find out about questions about accessibility.

**GREETING PEOPLE WITH A DISABILITY**

Greeting people with specific disabilities

Visual impairment:

- While guiding person with visual impairment, make sure to describe where you are going and if there are any changes in elevation, be sure to say whether it's upward or downwards or if using stairs, inform them regarding direction of stairs as well.
- Introduce them to other staff and help which are available to them.
- While helping them sit; guide their hand to the back of the chair, letting them know there is a chair to sit on.
- Let them know when you leave.
- Consider sending the papers that will be presented at the conference/convention prior to the event to people with visual impairment in different formats (larger fonts, Braille, etc.).

Hearing impairment:

- Train staff to be sensitive about communicating with people with hearing impairment as there are different degrees impairment.
- Consider having induction loops available, this stops background noise interference.
- Consider booking interpreter services in advance if required, also provide the interpreter documents to be presented prior to event to allow them to prepare for the meeting.

Speech impairment:

- Train staff to listen carefully to people with speech impairment; It is best not to attempt to finish sentences or assume what they are going to say.

Physical Impairment:

- Avoid leaning on person's wheelchair – this is part of their space.
- Try to get to the same level as the wheelchair user, by kneeling down or sitting on a chair.
- Never move the wheelchair without the person's consent.

**AT THE EVENT**

General information:

- Be welcoming and assist people if needed.
- Simple, clear and colorful signs will help people get to the meeting room.
- Let people know about housekeeping at the beginning of the meeting.
- Provide information regarding accessible washrooms, fire exits and smoking areas.
- Remind venue staff to be aware of problems, i.e. objects on the floor that are hazards for visually impaired people.
- Consider seat allocation according to the requirement, i.e. allocate seats to people with hearing impairment closer to induction loop.
- Consider the volunteers/staff/organizers wearing badges or distinct clothes so they may be identified easily incase the attendees require help.
- Introduce the interpreters and/or captioners and explain what they will be doing during the event.
- Make sure organizers, presenters and volunteers are aware of emergency evacuation procedures.

Information for people with specific disabilities

Hearing impairment:

- People with hearing impairment may prefer to be seated where they have a good view of ongoing event.
- Language support professionals can advise on where they need to sit or stand in relation to the speaker and the audience.

Visual impairment:

- Be aware that vastly different lighting levels between rooms can make it difficult for people.
- If you are using spot lighting/lamps for people to do close work, think about:
  - where the lamp is placed
  - how bright it is.
- Consider signs covered in glass or on glossy paper readable to people with visual impairment.

**SUGGESTIONS FOR EFFECTIVE PRESENTERS**

- Produce materials in large print (16-point type or larger).
- Encourage and support presenters to offer copies of their material in different formats i.e. Braille, before their presentation starts.
- Consider lectern heights and audiovisual controls need to be adjustable to meet the needs of different speakers.
- Encourage presenters to use captioned videos.