

To the Point: the development and evaluation of a website about Diabetes for adults with intellectual disability and their care providers

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Purpose

- To develop information about diabetes and diabetes management for people with intellectual disability (and diabetes) and their care providers



Living with diabetes

- Everybody is susceptible to diabetes
- People with intellectual disability generally have poorer health and poorer activity regime
- Having diabetes can cause feelings of being overwhelmed for the person
- Burden of care is higher whether care provider or the person with diabetes



Literature/web search

- No easy-to-access information about diabetes and disease management for people with cognitive impairment
- Website review - patient education on *diabetes mellitus* - 214 sites of which none had information suited to people with cognitive impairment.



Method - design

The design process was collaborative with adults with intellectual disability, care providers, and professionals (n=76) in 39 focus groups.



Web vs Print



- Advantage of web-based information - low cost, de la moda
- Disadvantage - computers may not be commonly used by people with intellectual disability; access to computers is limited by poverty; if person needs assistance from support workers to use a computer, it may compromise privacy.
- We produced BOTH




Trial of printed information

15 people with intellectual disability and diabetes
31 care providers

“Delivering diabetes care to people with intellectual disability”





Tool outcome



- *To the Point* information kit for people with intellectual disability who have diabetes and their carer providers.
- Printed format was revised for website design.
- Web design of *To the Point* was devised using the *W3C Guidelines*
<http://www.w3.org/TR/WCAG10/>.

Information needs




For people with intellectual disability and often for their care providers:

- specific educational needs such as repetitive and graphic information;
- plain language & jargon free;
- time in a daily schedule to take in new information is limited;
- any information has to be easy to access;
- information has to be relevant
- information has to be utilisable by a range of educational backgrounds

Development - content

- Material available for the general public
- Recognised websites, journals, books and pamphlets
 - Special educator
 - Graphics design
 - Editor
 - Diabetes educators
 - Copyright lawyer
 - Endocrinologist
 - General practitioner
 - Occupational therapists
 - Nurses
 - Nutritionists
 - Podiatrists
 - Service managers
 - Pharmacist
 - Clinical biochemist




The School of Medicine

What is Diabetes

How Food Gives Your Body Energy

When You Eat

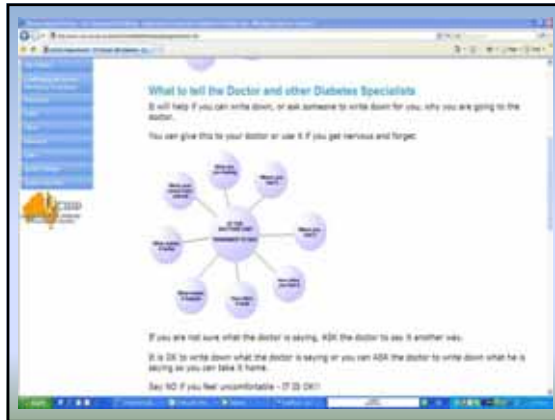
What is Glucose?



Your Podiatrist:

Your Eye Specialist:

Your Dietitian:



Web pages design

Web page designer assisted with:

- Fitting it to W3C international guidelines for people with disability;
- Making it bright, positive and easy-to-negotiate;
- Putting in all graphics;
- Making it interactive with action plans;
- Presenting people with intellectual disability in a positive way;
- Making it easily printable;
- Ensuring **Google** search top listing.




Web pages - useability

- Utilitarian for varied audiences;
- Look standardised;
- Useability frameworks applied;
- Style sheets to match assistive readers;
- Increase the contrast of text and text size;
- Bigger fonts - low vision and glaucoma;
- Level of contrast - white space;
- Graphics four times bigger than printed version;
- More than one sensory channel for input;
- Colours matched for colour blindness.




Moving through pages

- Navigation is uncomplicated
- Lengths of text on one page per topic to avoid losing the reader by forcing them to skip to the next page;
- Because not every user has wide screen, the pages are designed to fit any size screen through any browser and across platforms (IBM, Macintosh);
- User can track back via 'bread crumb' system to main menu.





Printing web pages

- Print icon is clearly legible at all times and remains the same position;
- When print command chosen, graphic components disappear & document printed coherently + page numbers + current date.




Different audiences

- Distinction made in information type, presentation and language between the information for the person with intellectual disability and the care provider






Limitations

- Depends on access to computer/internet
- Potential improvements include:
 - With 30% of people with intellectual disability having hearing impairment, audio boards with a voice-over could make the tool more attractive to many
 - Font could be increased for the severely visually impaired
 - More interactive in style



Success

- **Where none existed, now there is a web page specifically for people with diabetes who also have intellectual disability**
- End-user involved in development
- Targeted at needs of person and their direct care provider rather than professionals
- Accessed 850 times per month on average

Applicability

- Given ready accessibility of information, may prove useful to people with low English literacy



<http://www.som.uq.edu.au/research/qcidd/diabetes>

thank you! any questions?

