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Developing health literacy skills through the use of community based surveys and multimedia products

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Health literacy

- Fundamental if people are to successfully manage their own health
 - requires a range of skills and knowledge about health and health care;
 - understanding, interpreting and communicating health information,
 - seeking of appropriate care
 - making critical health decisions. Keleher, 2007
 - not simply a technical matter involving reading and numeracy skills.
 - both the process and outcome of people's interactions with the culture and society in which they live.



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- Health literacy is thought to be a better predictor of health status than education, SES, employment, race or gender (Weiss, 2005)
- The American Institute of Medicine reviewed more than 300 studies and found in the vast majority there was a mismatch between health-related materials and the average reading ability of adults (Nielson-Bohlman, Panzer & Kindig, 2004).

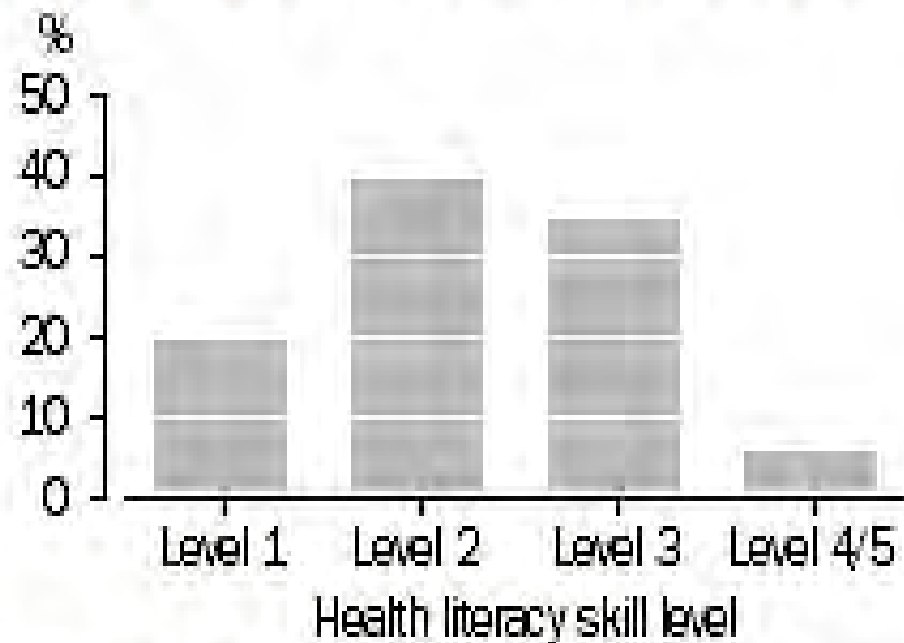




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Health Literacy

HEALTH LITERACY SKILL LEVELS(a) - 2006



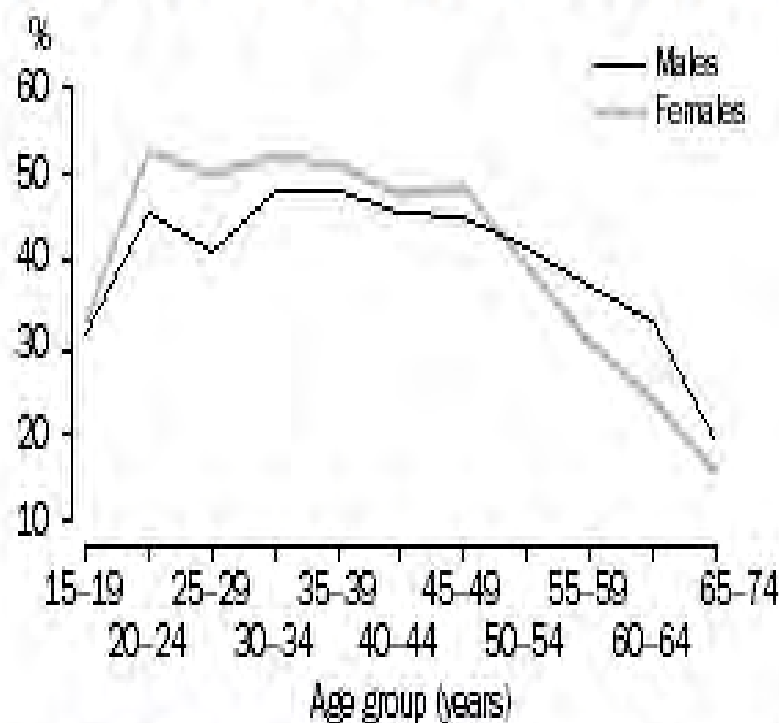
(a) Skill levels 3, 4 and 5 represent adequate or better health literacy.

Source: [Health Literacy, Australia](#) (ABS cat. no. 4233.0)



Health Literacy

PEOPLE WITH ADEQUATE OR BETTER HEALTH LITERACY(a) - 2006



(a) Skill levels 3, 4 and 5 represent adequate or better health literacy.

Source: [Health Literacy, Australia](#) (ABS cat. no. 4233.0)



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Communication

- Communicate in a way that people readily understand the information
- Teach, check, clarify and this results in understanding





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The context

- 4 week intensive Nutrition and Therapeutics course offered to 4th year Pharmacy students
- work in groups of 4 – 5 students
- develop an innovative 3 minute multimedia resource using ‘clear and accessible’ language to communicate a diet-disease relationship

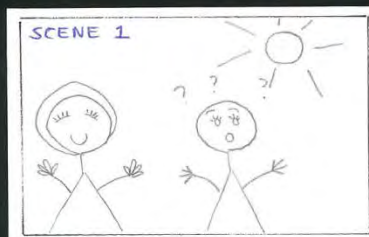
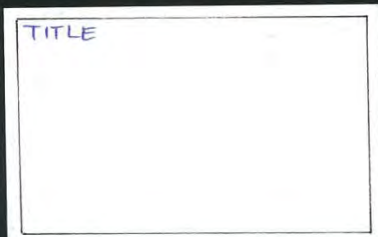
1. The role of iron in women’s health
2. The dietary intake of salt in it’s role in hypertension
3. Vitamin D deficiency in young Muslim women
4. Osteoporosis in elderly men and women (> 70 years) living in their own homes



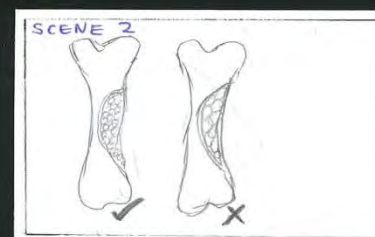
Task

1. Community based survey and literature review
 - a. Survey; identify 'gaps' in knowledge.
 - b. literature review; determine any other factors such as cultural, gender, socioeconomic status, self efficacy, response efficacy, educational background, languages typically spoken, motivation to change etc that may impact on the way you will need to communicate your message.
2. Create storyboards and audio script
3. Prepare multimedia animation / video / blended media
4. Community based evaluation and self evaluation

STORY BOARD...



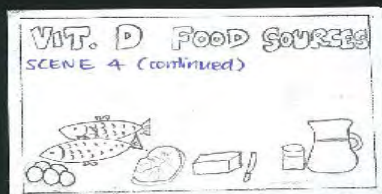
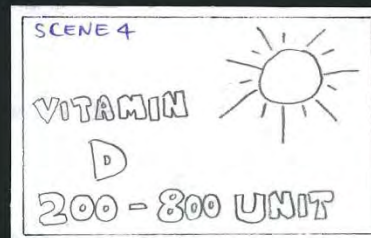
Scene 1 – Mariam out in the sun. Sandy comes along and asks what she is doing. Mariam has been diagnosed with vitamin D deficiency but she still isn't sure what it is.



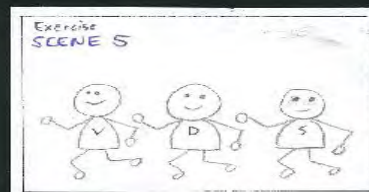
Scene 2 – the vitamin D squad comes along to explain to both of them what vitamin D deficiency is and what it could lead to.



Scene 3 – an explanation of the risks involved with vitamin D deficiency.



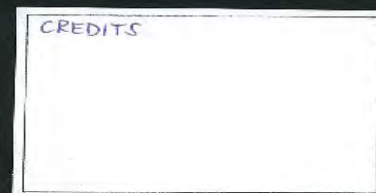
Scene 4 – the recommended daily intake of vitamin D and calcium are explained. Popular sources of vitamin D are recommended.

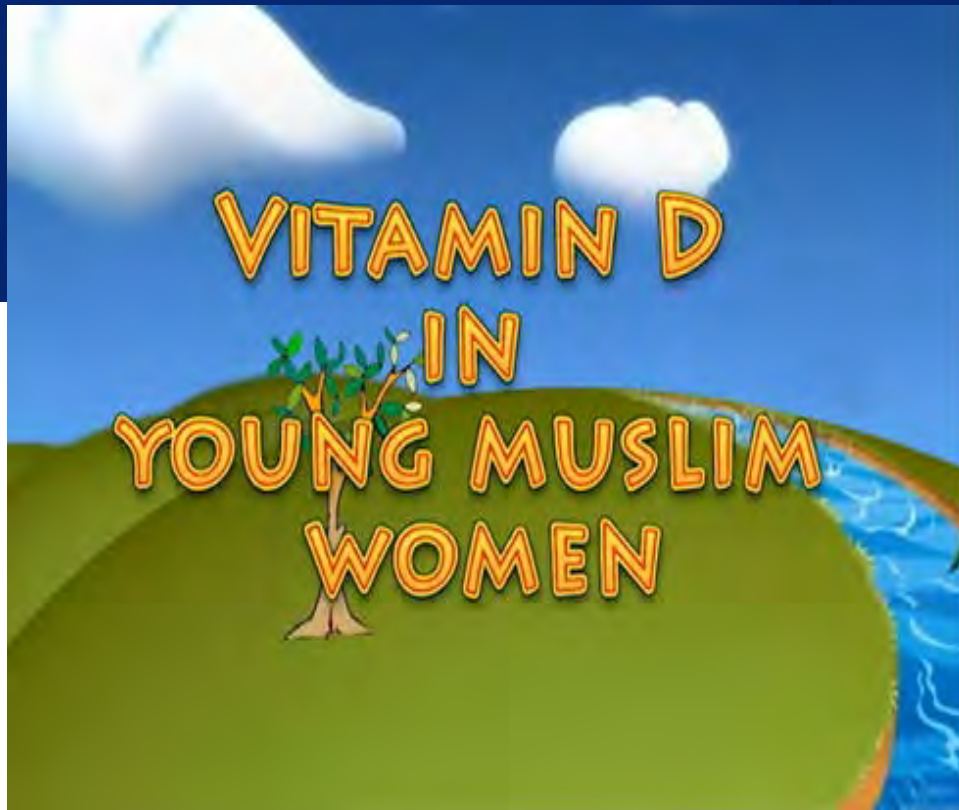


Scene 5 – other ways of reducing the risk of osteoporosis are explained. Some examples include, weight bearing exercise such as running, walking, light weights etc.



Scene 6 – the summary. Mariam concludes what she has learnt and why vitamin D deficiency is a problem.





Csontrikulás

Osteoporosis

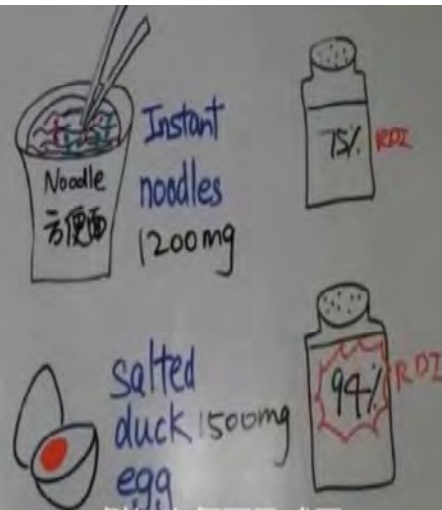
骨质疏松

Остеопороз

Οστεοπόρωση

골다공증 โรคกระดูกพรุน

C.H.E.N.
Productions
presents...



例如方便面及咸蛋

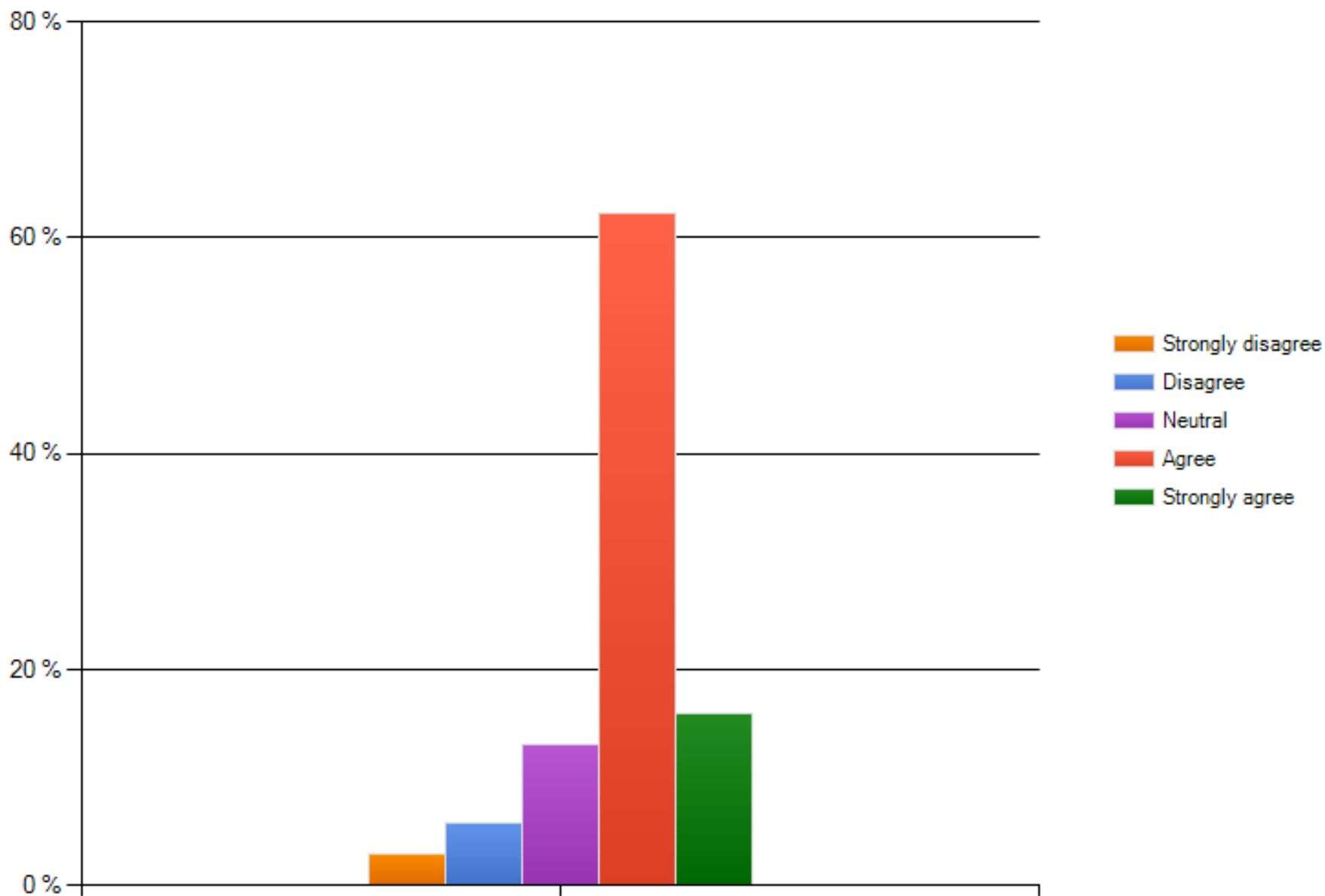


Key outcomes

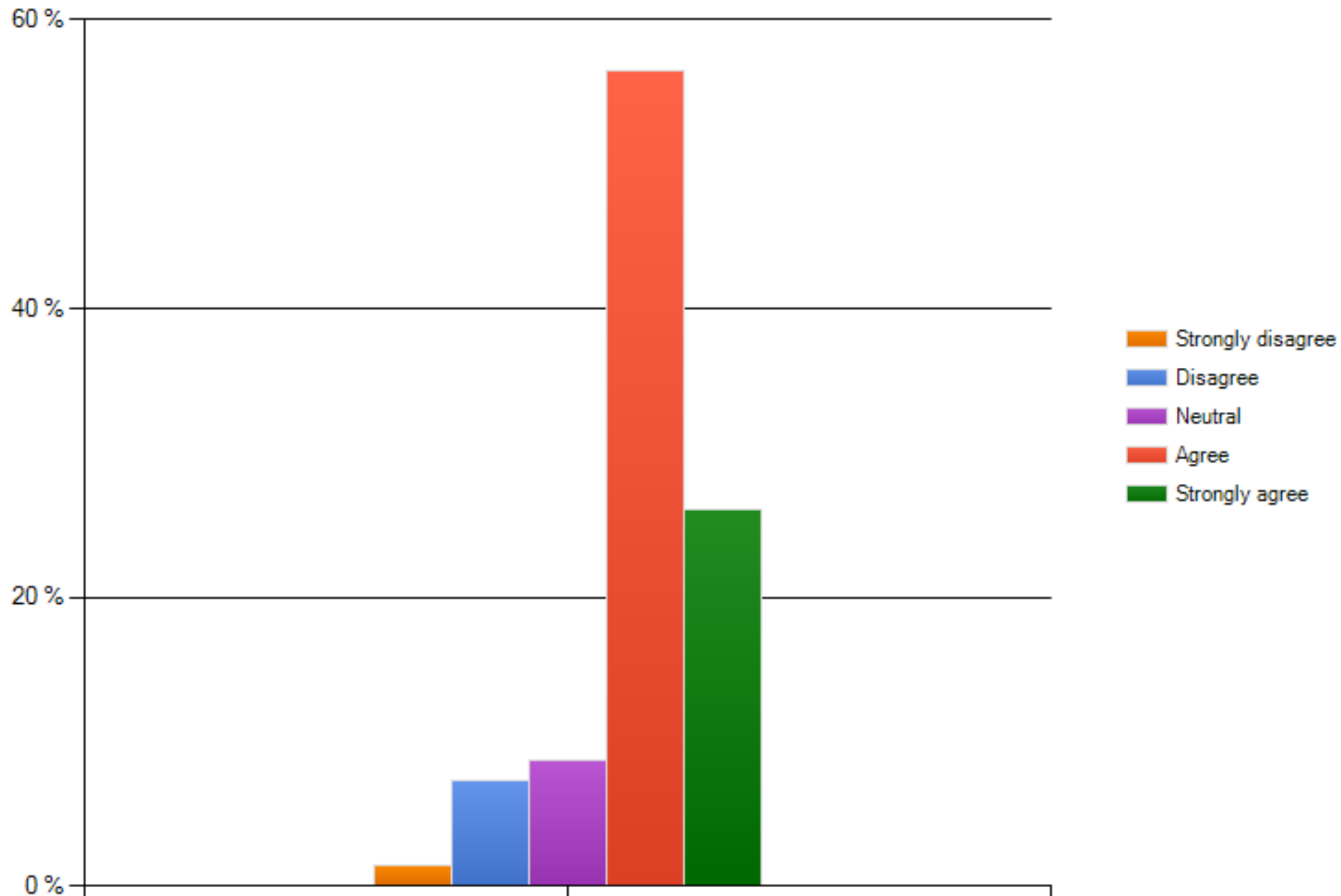
- 215 students provided feedback
- reduction from 71%-18% of students overestimating health literacy levels in Australia after training
- 68% - 90% of students understood the factors that influenced health literacy after training
 - Significant improvements in the belief that health literacy is influenced by
 - language and literacy levels ($p < 0.001$)
 - numeracy skills ($p < 0.01$)
 - an individual's interaction with the community ($p < 0.001$)
- Analysis of assessment tasks using BIGG's SOLO taxonomy demonstrated >90% students achieved deep learning (4.4+0.6 out of a max. 5.0)

'Before this course, I always thought poor health outcomes were attributed to either patients choosing not to adhere to their medication or a weak health care system'.

Do you believe the process encouraged iterative ways of learning through sharing and conveying ideas to clarifying and confirming information?



Did you enjoy conveying the health literacy message using your creative talents?



Community feedback

- multimedia productions ‘held their attention’, ‘informative’ and at times ‘entertaining’
- 72% of the 196 people surveyed reported they would prefer to receive diet-disease information via a 3 minute multimedia production instead of a written brochure.
- pre and post survey data generally demonstrated an increase in knowledge of the role diet can play in preventative health
- A small number of misconceptions existed post program (grams vs. oz).

Student feedback - creativity

‘Initially the thought of having to make a multimedia production was rather frightening to me. However, ...the process became more enjoyable. I enjoyed the creative process of developing the storyboard because it got me to use much of my imagination, drawing skills and thought processes on how we could best portray our message using picture. The process was quite fun!’



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Student reflections

“Now I get it! I am Vietnamese and have not traditionally consumed dairy as part of our daily diet. I now know why so many Vietnamese are crippled in old age. I have sent the video link back to my friends and a pharmacy in Vietnam and when I graduate want to go back and change this for all these people. I have also started eating more fish, green leafy vegetables and dairy and exercising more myself”.



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Student reflections

“Working in a pharmacy and dealing with many direct sales of calcium and vitamin D supplements to the elderly, I held a biased belief that many elderly people had a sound knowledge of osteoporosis and its prevention.... This activity really grabbed my attention, highlighting the pharmacist’s responsibility and need to address and improve health literacy of customers. As a pharmacy assistant, I found myself addressing a fail old lady who claimed she was unaware of supplements or their contribution to bone health. I was very ecstatic to have completed this task and be able to provide her with more knowledge in an appropriate way. Most importantly, it was the personal satisfaction of playing a part in increasing the health literacy of an individual, and the opportunities through customer interaction to find and address gaps in their knowledge”.



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Feedback from the students

“I offer our most sincere appreciation and gratitude for the opportunity to run the Health Literacy project. As Muslims ourselves, it wasn’t until this project that we are fully aware of the issue of vitamin D deficiency in our community (young Muslim women). This project has also brought a great impact in delivering and communicating this issue to young Muslim women as the message was delivered from one Muslim woman to another Muslim woman.....We highly hope that this project will continue in future years to benefit the juniors and most importantly, to the community”.



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Continual improvement

- Software crashes using windows movie maker
- Volume of marking with a very short turn around time



Literature Review

Of the thousands of international students studying in Australia, a significant number are Muslims from countries such as Malaysia, Indonesia and Pakistan. Many have settled in Australia under the government's 'skilled' migration program after completing studies at their own expense.

Cultural and Gender Aspects:

- The Qur'an states that females must be covered with a veil known as a hijab. Depending on her and her family's interpretation of this text, this may mean the entire body is covered, or some parts, such as the face and hands, may be uncovered.
- Women are inferior to men in Islam?
 - It is true that some Muslims believe that women are subservient to men. But this view is not shared by many other Muslims who believe that men and women are equal before God

Socioeconomic status:

- Muslims live separately from other Australians in Muslim ghettos?
 - Muslims do not live in ghettos. Their choice of suburb is more likely to be determined by their economic circumstances. Professionals and wealthy Muslims live in areas they think are appropriate to their requirements. Working class Muslims live in working class areas. Services such as mosques and Islamic schools are established where Muslims live, not the other way around. Most Muslims live in average suburbs with other Australians. Given the ethnic diversity among Muslims, the emergence of a Muslim ghetto in Australia is highly unlikely.

General diet:

Many people have heard of *halal* food these days. There are *halal* butchers, *halal* restaurants and *halal* takeaways. 'Halal' is an Arabic word which means 'permissible'. In the context of food it means what Muslims are allowed to consume.

In general, Muslims are allowed to consume all foods (e.g. grains, vegetables, fish and meat), except those that are explicitly prohibited in Islam. Prohibited foods are very few but include:

- Alcoholic drinks such as beer and wine.
- Pig meat (eg. ham, pork, bacon) and by-products of the pig such as pig fat.
- Meat of an animal that has died of natural causes, or as a result of strangling or beating.
 - This applies to all animals that Muslims may consume such as cows, sheep, goats and birds (e.g. chickens, turkeys and ducks). The animal or bird should be:

- Handled with kindness. Desensitisers and restraining methods can be used but should not lead to the death of the animal before slaughter.
- Killed quickly, with a sharp object such as a knife, to minimise pain and suffering. After that, the blood must be drained

- Blood that is in liquid ('drinkable') form.
- Cakes, biscuits or ice cream containing animal-based products such as lard, gelatine or enzymes.
- Packaged foods that contain 'animal fat' in case the fat comes from pigs.
- Restaurants and take away shops that serve pig meat, as the utensils used to prepare such meat might also be used with other foods.

Languages typically spoken:

- By the beginning of the twenty-first century, Muslims from more than sixty countries had settled in Australia. While a very large number of them come from Turkey and Lebanon, there are Muslims from Indonesia, Bosnia, Iran, Fiji, Albania, Sudan, Egypt, Palestine, Iraq, Afghanistan, Pakistan and India, among others.
- Arab Muslims comprise approximately 20% of the Muslim population of the

Reference:

Saeed, A 2004, *Muslim Australians – Their beliefs, practices and institutions*, Department of Immigration and Multicultural and Indigenous Affairs, viewed 6 June 2012, http://amf.net.au/library/uploads/files/Religion_Cultural_Diversity_Resource_Manual.pdf



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Reflections from the lecturer



- chaotic, busy, crazy, noisy
- fun, happy, productive, improved confidence
- increased workload over a short time period offset by improvements in deep learning
- ‘light bulb moments’ re preventative health



Questions?

