Cultural considerations when caring for children with type 1 and 2 diabetes in a culturally and linguistically diverse population.

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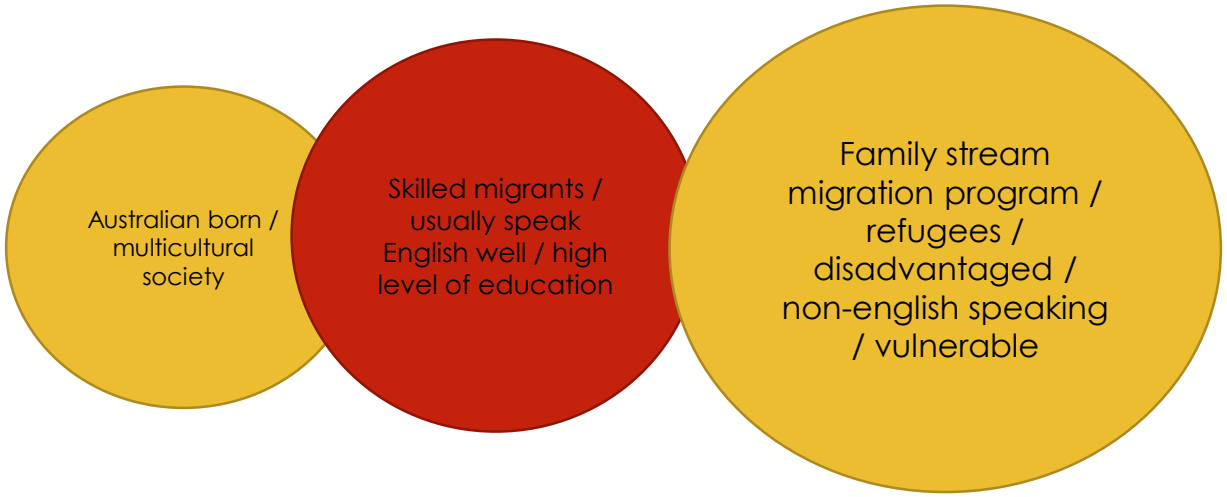
DEMOGRAPHICS OF CHW /WESTERN SYDNEY

- **More than 140 countries make up multicultural Blacktown**
- Western Sydney is **one of the most culturally diverse places in Australia, if not the world**.
- (The Daily Telegraph Jessica Oxford, Blacktown Advocate December 2, 2015)



Incidence of T1DM	Country
Australia[1]	11.5 : 100 000
India	3.2 – 17.93 : 100 000
China[3]	0.51 : 100 000
Qatar[2]	11.4 : 100 000
Kuwait[2]	22.3 : 100 000

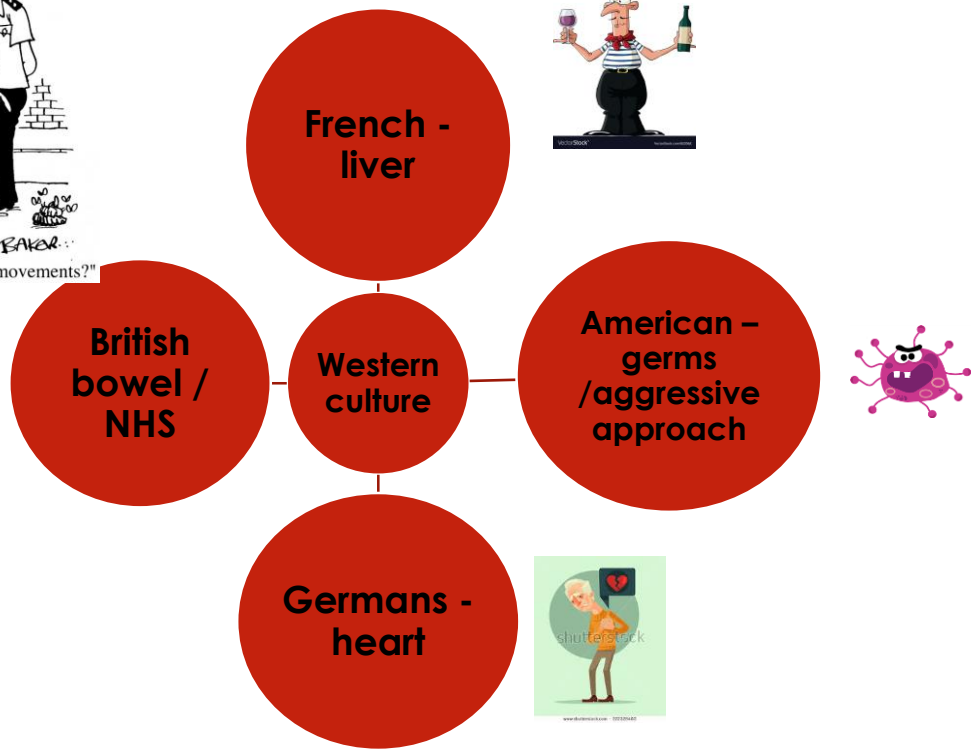
Having an ethnic background has been described as a risk factor for poor metabolic control.

L. Povlsen et al. / Patient Education and Counseling 59 (2005) 164–170

[1]NDR 2016
[2]www.thelancet.com Vol 383 February 2014
[3]*BMJ* 2018;360:j5295

VIEWS OF 'HEALTH'

Western cultures differ[1]

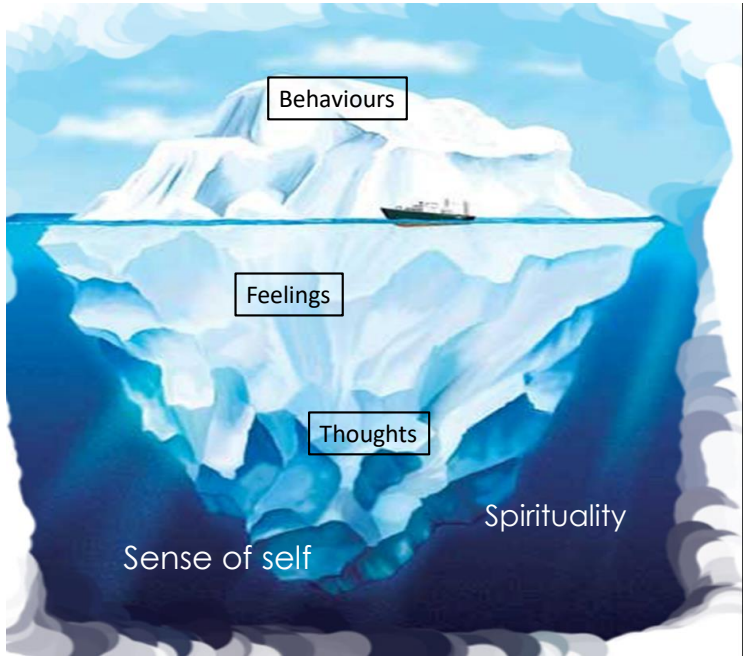


Western Health View	Ayurvedic [2](Indian)
Westerners view the body as a complex machine	Body and health a delicate balance between the physical, social, and supernatural
Focuses solely on the body	Holistic approach
Physician is the expert	Physician is the guide

- 1. The cultural assumptions behind Western medicine, By Honorary Associate Deborah Lupton. First published in The Conversation , 8 January 2013
- 2. Kinsley, 1996; Trollope-Kumar & Last, 2010.

CROSS CULTURAL BARRIERS

- Lack of knowledge
- Fear and distrust
- Stereotyping
- **Assumed similarity**
- Nonverbal communication
- Authority
- Physical touch/contact
- Verbal language and styles



Cultural Considerations in Diabetes Management by Isrra Alibeji, PharmD Candidate 2017; and Autumn Stewart, PharmD, BCACP, CTTS

CULTURAL CONSIDERATIONS

- Family structure
- Religion
- Other

  Previous experience

  School

  Social circumstances

FAMILIES

- Patriarchal
- Gender roles[1]
- Role of mother
- Role of extended family
- Role of siblings

Who makes the decisions ?
Who is empowered to discipline?
What boundaries are in place (sleep patterns / phones / gaming)?

How do they work ?
- as a team / build resilience
- helicopter parenting
- victim mode

Often siblings are expected to take on parenting roles / represent family for interpretation

1.Katbamna et al., Qual Health Care. 2001 Sep;10(3):166-72

RELIGION

Guilt based religions

Gods punishment
Being at fault
Guilt
Infertility /shameful

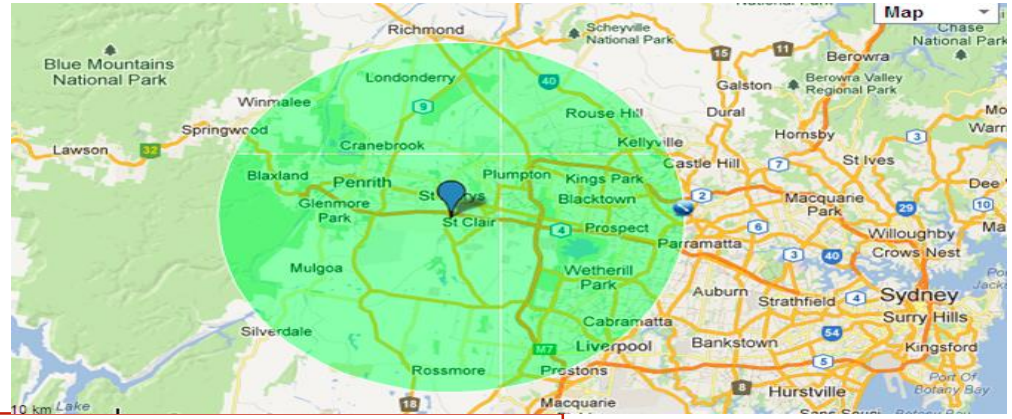
Barnes et al, 2000,Capps,1995

Religious Fasting

Not recommended for Type 1 Diabetes

Ibrahim M, Abu Al Magd M, Annabi FA, et al. Recommendations for management of diabetes during Ramadan: update 2015. BMJ Open Diabetes Research and Care 2015;3: e000108. doi:10.1136

THE PICTURE IN WESTERN SYDNEY FOR COMPLIMENTARY /ALTERNATIVE MEDICINE (CAM)



- CAM use amongst adults with T1 and T2DM
- similar prevalence of CAM use in Western Sydney (46%) to SA (48-53%) and inner Sydney (52%).
- Consistent with UK findings of ~ 46%
- Lower than US ~ 73%, India 63%
- Most used one or more of: multivitamins, cinnamon, Coenzyme Q, prayer, garlic, magnesium, Vit E, Omega 3, Yoga, Vit D
- **More likely to use CAM if born overseas**

Manya, K, Champion, B, Dunning T. (2012) The use of complementary and alternative medicine among people living with diabetes in Sydney. *BMC Complementary and Alternative Medicine*, 12:2.

Other therapies include:

Acupuncture, slapping, cupping, herbs

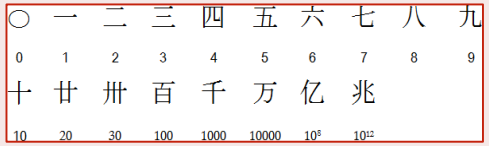
OTHER CONSIDERATIONS

Schools

- Role of teacher / unrealistic expectations

Priorities

- Refugees
- Lower socio-economic

Different numerical symbols / right to left	
mg/dl vs mmol/L	
Need for appropriate educational material	
Negotiating with school / language barriers	

Previous experience

- Overwhelming differences in services Australia vs home country

CASES

8 years old boy / only child
Gifts
Why did God give this to me?

14 year old boy
Chinese background
Stigma attached

6 year old girl
Going back to Iraq in December
Leaf which can cure diabetes

3 year old girl
Father distraught
Main focus….”she will never marry”

HCP APPROACH

- Multidisciplinary approach
- Develop rapport and relationship with family
- Be sensitive to impact of change
- Have some basic cultural awareness
- Acknowledge the role of CAM / discuss and welcome open conversation
- **Strong message regarding continued use of insulin as essential for life**

CAM USE IN CHILDREN WITH DIABETES

(n=86 children age 7-14 yrs, with T1 DM for average of 4.5 yrs, living in US)

- more frequent uptake if parent already using it
- if parents are born overseas
- was not associated with parent educational level or duration of diabetes
- 43% had discussed their CAM use with their diabetes team
- CAM use in T1D - makes it more difficult for parents to determine if CAM has been effective overall when insulin use still essential

Shapiro and Rapaport (2009) The Role of Complementary and Alternative Therapies in Paediatric Diabetes, Endocrinol Metab Clin N Am, 38, 791-810

Why might families consider using Complementary/Alternative Therapies for children?

- one or more parent is already using it
- word-of-mouth
- cultural or ethnic tradition
- trying to improve quality of life
- dissatisfaction with the complexity, discomfort, risks or costs of conventional medical treatment
- all options in conventional medicine have been exhausted
- spiritual need
- desire for a more ‘natural’ or ‘holistic’ approach
- convinced of it’s benefits

TRADITIONAL MEDICINES

“Herbs, roots and pins”

Hot and the cold (Yin & Yang)
(Liu, 2013; Ibeneme et al., 2017)

Acupuncture (Kawakita & Okada, 2014)

ROLE OF WOMEN AND FOOD

- *"My mom prepares foods and cleans the house. She makes things to be nice for dad and me. Dad works outside so we can have money"* (Cligrow, 2010).
- Hierarchy
- Gender norms
- Duties vs care

FEEDING ATTITUDES, PRACTICES AND TRADITIONAL DIETARY BELIEFS OF CHINESE MOTHERS WITH YOUNG CHILDREN IN AUSTRALIA: A MIXED METHODS STUDY

WEI HONG LIU BMED, QUT, 2013

- Australian sample n=254, Chinese immigrant mothers, cross-sectional survey, Chinese version of CFQ

FINDINGS:

- Mothers held **strong traditional dietary beliefs** and fed children according to these beliefs.
- Children had **high exposure** to and intake of energy-dense, nutrient poor non-core foods.
- Mothers had **low level of concern about child overeating or becoming overweight.**
- High level of **controlling feeding practices** :- restriction, monitoring, pressure to eat, use of food as a reward.
- 65% mothers decide what food child ate, **80% decide how much child will eat**.
- Mothers perceptions of picky eating are positively associated with **more pressure to eat.**
- Mothers stated their motivation for these behaviours was to ensure their child's good health.

PARENTING PRACTICES OF ARAB MOTHERS RELATED TO OBESOGENIC DIETARY BEHAVIORS IN CHILDREN AGES 6 – 10 YEARS OLD

TAMI, S.H AND REED D.B. THE FASEB JOURNAL, 30(1) SUPPLE.1155.7; 2016

US, qualitative study, 5 x focus groups (n=23)

Findings:

Arabic mothers wanted their children to eat healthier, in particular to:

- eat less junk and fast foods
- Stop drinking sugary drinks
- Limit their consumption of processed foods
- Eat fewer carbohydrates and more vegetables
- Find more time to cook healthier meals for family

In order to promote better child dietary behaviours, Arabic mothers reported using the following parental feeding practices:

-Pressured child to eat
-Spoon-fed child
-Rewarded with sweets, technology or money
-Bribery

AN EXPLORATORY STUDY OF ASSOCIATIONS BETWEEN AUSTRALIAN-INDIAN MOTHERS' USE OF CONTROLLING FEEDING PRACTICES, CONCERNS AND PERCEPTIONS OF CHILDREN'S WEIGHT AND CHILDREN'S PICKY EATING

JANI MEHTA, MALLAN, MIHRSHAHI, MANDALIKA AND DANIELS (2014) *NUTRITION & DIETETICS*; **71**: 28–34

- n=230, 1-5 yr olds, migrant Indian mothers living in Australia 1-8 yrs,
- 95% mothers had completed tertiary education; Self-reported questionnaire

Findings:

- girls, older children and children with higher wt-for-age Z scores were **pressure fed** to a greater extent
- Indian mothers perceptions and concerns about their child's weight do not appear to drive their use of controlling/**coercive feeding practices**.
- Need to further explore the **influence of extended family** (particularly mother-in-laws) and **cultural beliefs** eg 75% of sample practiced Hinduism, Hindu culture emphasizes food as a sacred commodity, considered disrespectful to leave food on the plate.

OTHER FAMILY CONSIDERATIONS

- Differing attitudes towards parenting and child development
- Parenting styles (may seem more 'lassez-faire' compared to Western expectations)
- Women are usually assigned the primary responsibilities of caring for a child with a disability or chronic medical condition
- Grandparents often play a major role in child-rearing and medical decision-making

GRANDPARENTING AND FOOD

- Studies show a clear correlation between overfeeding and grandparents being too lenient (Jingxiong et al, 2007, Verloo et al, 2016)

- This may be influenced by grandparents own life experience of childhood poverty.

- Parents do express concern over their inability to influence a grandparent with respect to offering nutritionally appropriate choices to the child.

A COMPARISON BETWEEN THE FEEDING PRACTICES OF PARENTS AND GRANDPARENTS.

Farrow (2014) Eating Behaviours 15:339-342.

- Grandparents increasingly assist with informal child care
- 36% of British parents use grandparents as main form of childcare
- 1 in 5 grandmothers provide over 10 hours of care to grandchildren/week
- Grandparents play a unique role in shaping young children's eating
- Many play an important role in planning and cooking meals for the family
- Their attitudes influence grandchildren's nutrition and eating habits
- Chinese grandparents often use food as an emotional tool to express love, affection and care; encourage children to consume larger portion sizes than is necessary
- In many cultures, parents often adopt the mode of feeding used by grandparents or follow grandparent advice out of great respect for grandparent wisdom and if they are more involved in childcare.

"I advised my mother not to push my daughter to eat so much. My mother argued with me and said that she really knew how to feed children, because she had brought up three children" (Jingxiong et al., 2007).

"The bigger the family is, the harder it is to stick to the new nutrition plan demanded by diabetes. My family lived on the first floor with our kids, and the grandparents lived on the second floor. Although we tried to have a healthy diet on the first floor, the grandparents didn't understand why they couldn't give sweets to their grandchild" (Verloo et al., 2016).

MEALTIME PATTERNS AND FAMILY ROUTINES

- Avoid assumptions about family meal timing and eating patterns, as highly variable
- Work to fit diabetes care around existing family routines
- May not eat together as a family at the same time
- Eating breakfast may not be the norm
- Use a template that allows for flexibility in terms of meal timing and meal names

ADAPTED ‘TYPICAL DAY’ PLAN

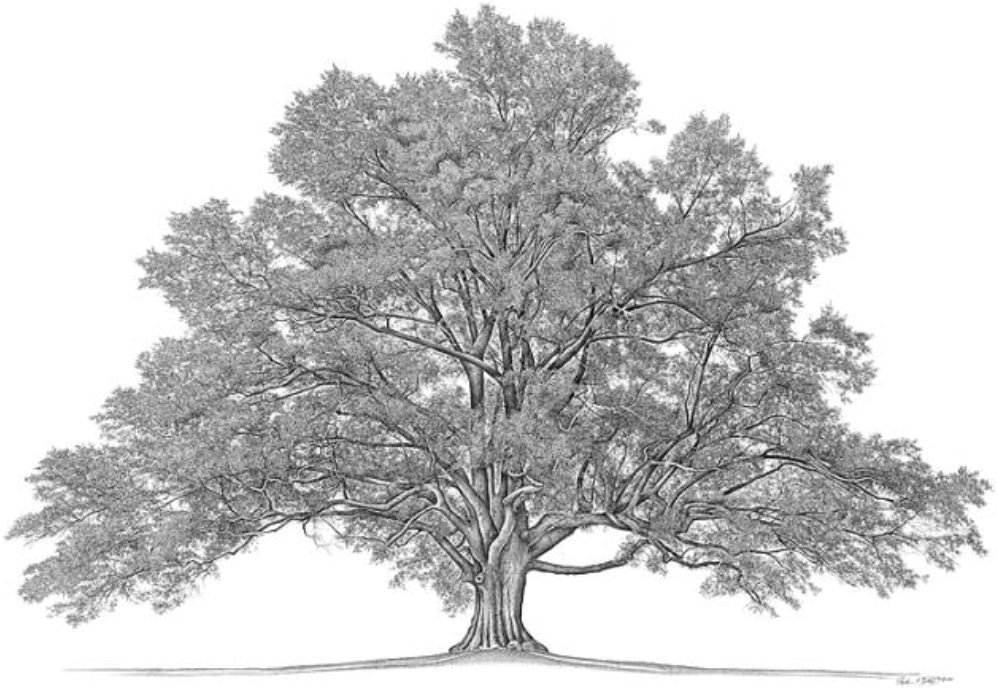
TYPICAL DAY

	Time	Food Ideas
Breakfast		
1. Finger prick		
2.		
3. Eat		
Crunch & Sip		
First Break		
1. Finger prick		
2.		
3. Eat		
Second Break		
1. Finger prick		
2.		
3. Eat		
After School		
1. Finger prick		
2.		
3. Eat		
Once you are discharged from hospital and remain in regular contact with the diabetes team please call before 4pm for insulin dose adjustments. If you are unable to call in or speak with anyone, use the same doses as the day before.		
Evening		
1. Finger prick		
2.		
3. Eat		
Bedtime		
1. Finger prick		

- **The 2 hour rule**: To get an accurate blood glucose level there needs to be at least a 2-hour gap between a carb meal/snack and next fingerprick.
- **If blood glucose level < 6 at parent bedtime, wake child and give 1 cup milk.**
- **If blood glucose level < 5 at 3am, wake child and give 1 cup milk. If blood glucose level < 4 at any time of day or night, treat as a hypo (see front of log book for treatment options).**

CHALLENGES FOR THE CHILD WITH OTHER DIAGNOSES

- Coeliac Disease
- Vitamin D deficiency
- Autism Spectrum Disorder



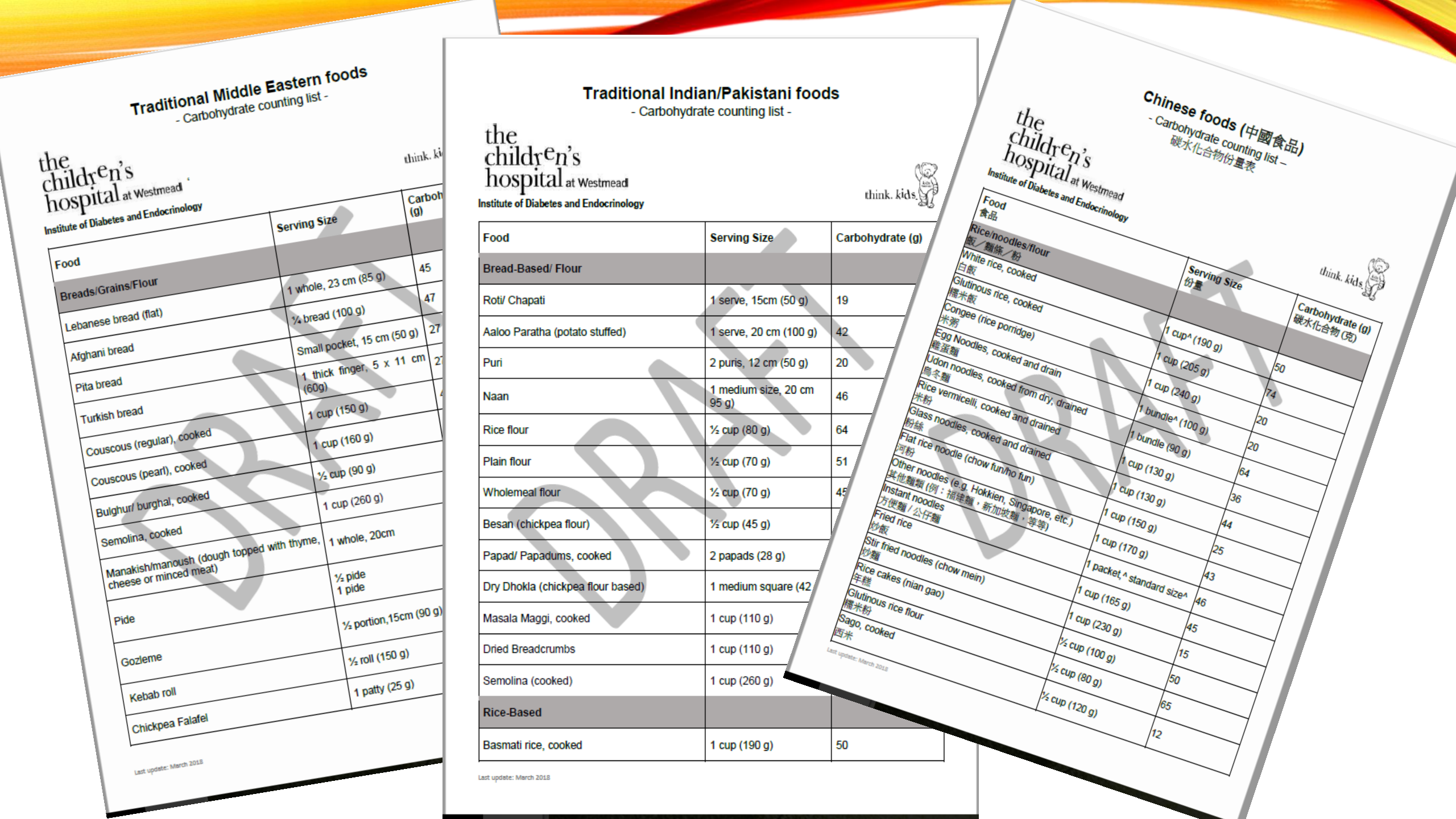
NUTRITION ASSESSMENT

Some examples of lessons learnt:

- The importance of exploring sleep routines, as closely aligns with eating patterns
- Children's access to $ and food purchased on way to or from school ? Parent may not be aware of what is eaten outside of the home
- If the T1D diagnosis has not been shared with the school, the child may not eat (or avoid carbohydrate) at school in order to avoid a lunchtime injection
- School breaks – "Crunch'n Sip", reversed recess and lunch times, some high schools 3 eating breaks / day
- Importance of exploring food conflicts – adolescents may reject cultural family foods and demand takeaway instead

MORE LESSONS LEARNT:

- Always ask if there is anything else in the child's bottle besides milk
- Common to see bottle use and spoon feeding through to age 5 yrs +
- Ask about food eaten late at night (after parents may have gone to bed)
- What foods do visitors bring to your home?
- Importance of considering past food deprivation eg in refugee camps, war-torn countries
- Opportunity to teach parents how to adapt to the new school environment eg cannot expect teacher to heat up child's food
- Value of using visual food aids and culturally specific diabetes resources eg for carb counting, translated if possible



Traditional Middle Eastern foods
- Carbohydrate counting list -

the children's hospital at Westmead
Institute of Diabetes and Endocrinology

think. kids.

Food	Serving Size	Carboh (g)
Breads/Grains/Flour		
Lebanese bread (flat)	1 whole, 23 cm (85 g)	45
Afghani bread	¼ bread (100 g)	47
Pita bread	Small pocket, 15 cm (50 g)	27
Turkish bread	1 thick finger, 5 x 11 cm (60g)	2
Couscous (regular), cooked	1 cup (150 g)	
Couscous (pearl), cooked	1 cup (160 g)	
Bulghur/ burghal, cooked	½ cup (90 g)	
Semolina, cooked	1 cup (260 g)	
Manakish/manoush (dough topped with thyme, cheese or minced meat)	1 whole, 20cm	
Pide	½ pide 1 pide	
Gozleme	½ portion,15cm (90 g)	
Kebab roll	½ roll (150 g)	
Chickpea Falafel	1 patty (25 g)	

Last update: March 2018

Traditional Indian/Pakistani foods
- Carbohydrate counting list -

the children's hospital at Westmead
Institute of Diabetes and Endocrinology

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Food	Serving Size	Carbohydrate (g)
Bread-Based/ Flour		
Roti/ Chapati	1 serve, 15cm (50 g)	19
Aaloo Paratha (potato stuffed)	1 serve, 20 cm (100 g)	42
Puri	2 puris, 12 cm (50 g)	20
Naan	1 medium size, 20 cm 95 g)	46
Rice flour	½ cup (80 g)	64
Plain flour	½ cup (70 g)	51
Wholemeal flour	½ cup (70 g)	45
Besan (chickpea flour)	½ cup (45 g)	
Papad/ Papadums, cooked	2 papads (28 g)	
Dry Dhokla (chickpea flour based)	1 medium square (42	
Masala Maggi, cooked	1 cup (110 g)	
Dried Breadcrumbs	1 cup (110 g)	
Semolina (cooked)	1 cup (260 g)	
Rice-Based		
Basmati rice, cooked	1 cup (190 g)	50

Last update: March 2018

Chinese foods (中國食品)
- Carbohydrate counting list –
碳水化合物份量表

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Food 食品	Serving Size 份量	Carbohydrate (g) 碳水化合物 (克)
Rice/noodles/flour 飯／麵條／粉		
White rice, cooked 白飯	1 cup^ (190 g)	50
Glutinous rice, cooked 糯米飯	1 cup (205 g)	74
Congee (rice porridge) 米粥	1 cup (240 g)	20
Egg Noodles, cooked and drain 雞蛋麵	1 bundle^ (100 g)	20
Udon noodles, cooked from dry, drained 烏冬麵	1 bundle (90 g)	64
Rice vermicelli, cooked and drained 米粉	1 cup (130 g)	36
Glass noodles, cooked and drained 粉絲	1 cup (130 g)	44
Flat rice noodle (chow fun/ho fun) 河粉	1 cup (150 g)	25
Other noodles (e.g. Hokkien, Singapore, etc.) 其他麵類 (例：福建麵，新加坡麵，等等)	1 cup (170 g)	43
Instant noodles 方便麵／公仔麵	1 packet,^ standard size^	46
Fried rice 炒飯	1 cup (165 g)	45
Stir fried noodles (chow mein) 炒麵	1 cup (230 g)	15
Rice cakes (nian gao) 年糕	½ cup (100 g)	50
Glutinous rice flour 糯米粉	½ cup (80 g)	65
Sago, cooked 西米	½ cup (120 g)	12

Last update: March 2018

VISUAL AIDS

- Helping families and staff to recognise and identify foods
- Bridging the gaps
- Available for use

Visual Aid for Indian/ Pakistani Food

(Serving portions in photos are not indicative of recommended serving sizes)

the children's hospital at Westmead

Last updated: March 2018

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Visual Aid for Middle Eastern Food

(Serving portions in photos are not indicative of recommended serving sizes)

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Visual Aid for Chinese food

(Serving portions in photos are not indicative of recommended serving sizes)

the children's hospital at Westmead

Last updated: March 2018

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Roti/Chapati

Aaloo Parantha

Puri

Naan

Besan flour (chickpea flour)

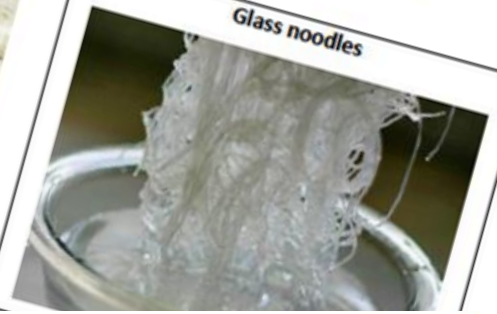
Papad/ Papadums

Congee

Rice vermichelli

Egg noodles

Glass noodles



Udon noodles

Chow mein

Pide

Gozleme

Chickpea falafel

Fattoush

Kibbeh

Vine leaf/ Dolma


THANKS