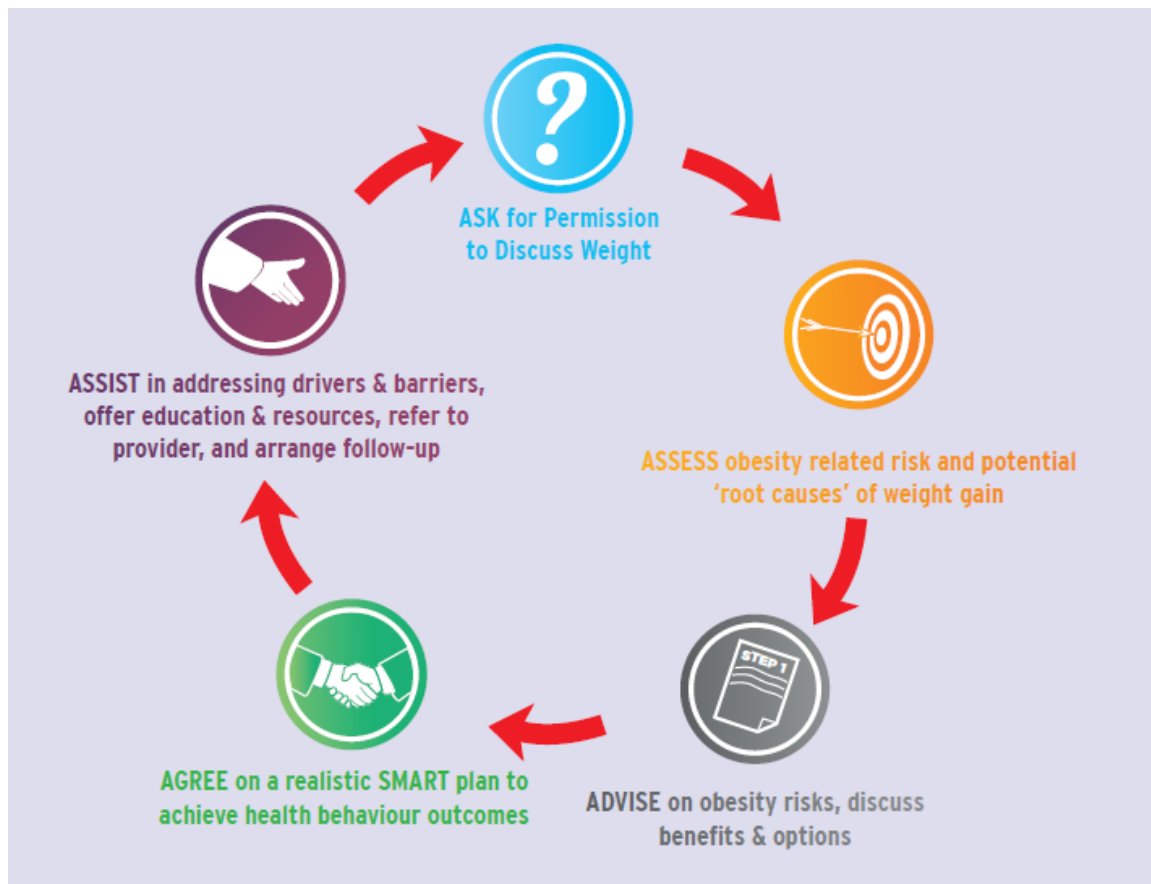


Creating a Patient's Individual Careplan: *The 5As' of Pediatric Obesity Management*



Information gathered from families during the **ASK** and **ASSESS** steps allows us to conceptualize the patient's health and move on into the **ADVISE**, **AGREE** and **ASSIST** steps.

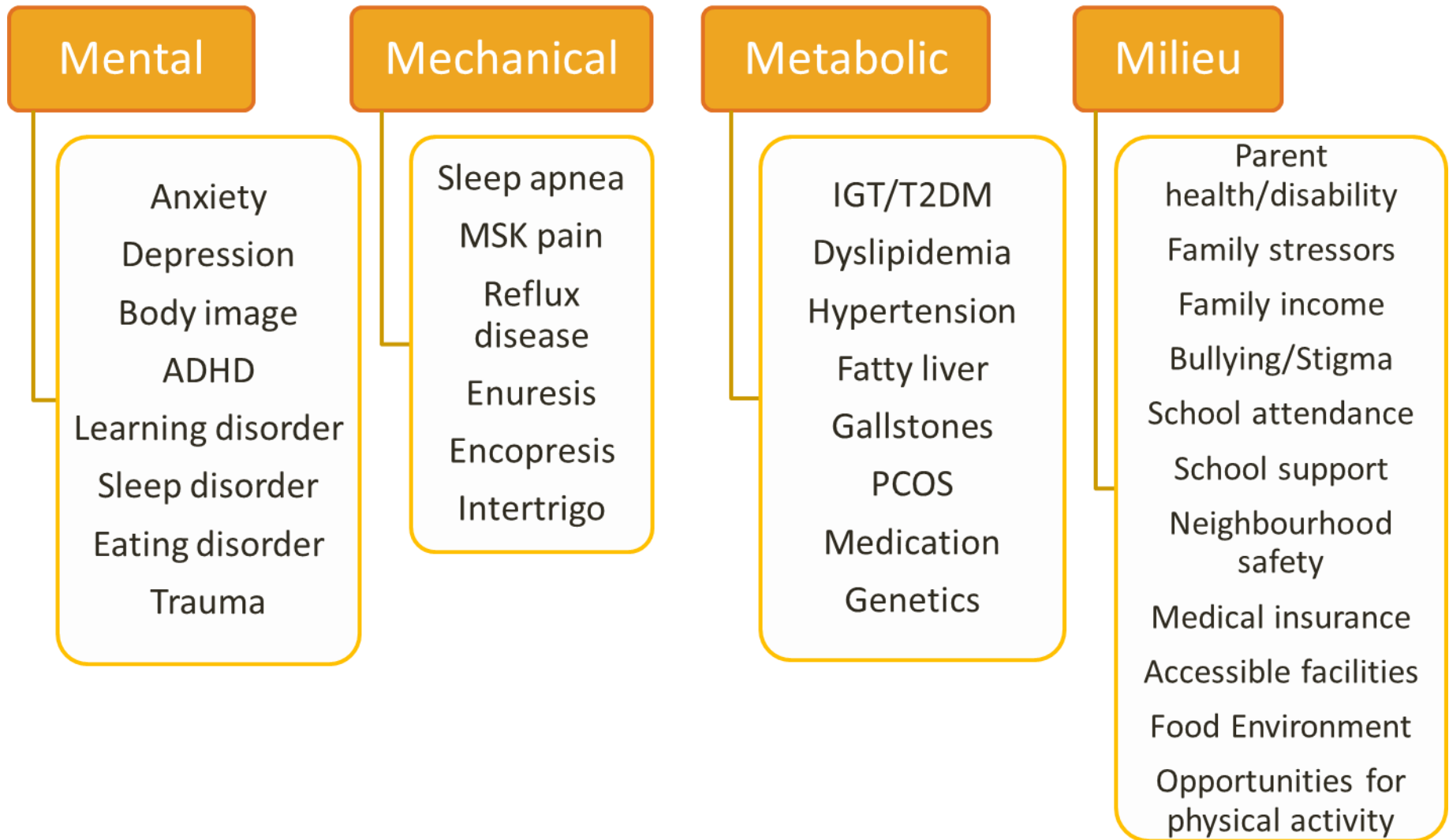
CASE STUDY:

The following information about patient “Jack” was compiled through the first two steps (ASK and ASSESS):

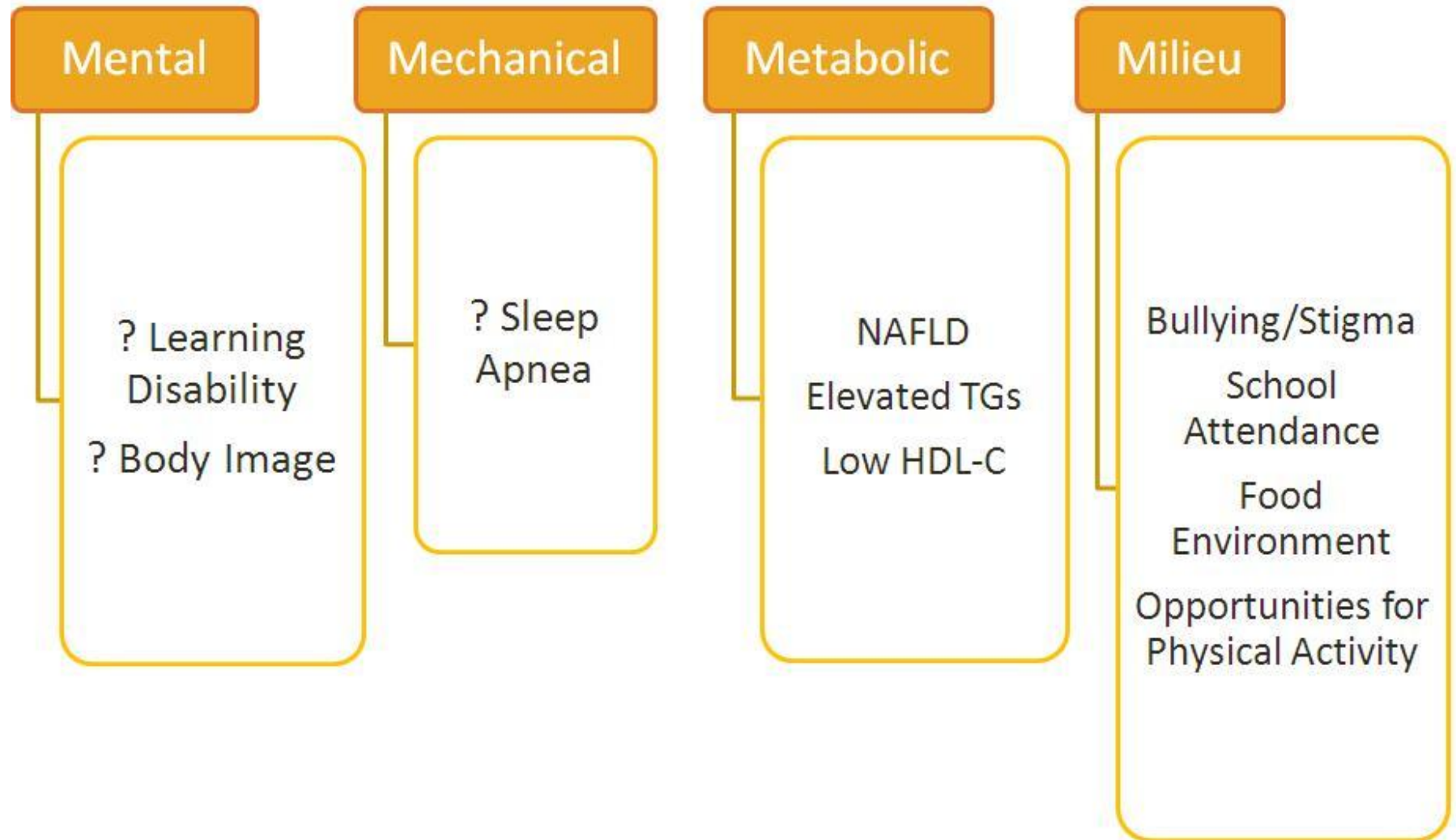
Jack

- Jack is 11 years old and lives with his parents
- He is increasingly getting into trouble at school and doesn't want to go (mornings are difficult)
- He has struggled with school work for some time
- He has been teased about his weight since kindergarten
- Jack goes to his grandmother's house after school - His mother has tried to speak to grandmother about food choices, but this has not led to any changes
- He skips breakfast most days of the week
- His mother has been finding empty wrappers hidden in Jack's room and in the basement
- He and his family eat out 2x per week
- Jack has a TV in his room; Jack has 3-4 hours of screen time/day, including at bedtime
- He is sleeping 10 hours and snores. He is difficult to wake in the morning
- He plays soccer once per week; Jack used to like swimming but has been refusing to go over the past 6 months.
- He has begun wetting the bed at night over the last 6 months
- Jack has a normal growth velocity
- He does not have any dysmorphic features
- He had onset of obesity at 3 years of age
- Mom reports that she has noticed darkened skin around Jack's neck
- Jack's height is 152 cm and his weight is 82 kg
- His BMI is 35.5 kg/m^2 . His waist circumference is 115 cm.
- His Blood Pressure is 124/70
- He has acanthosis nigricans along the back of his neck with a few skin tags
- 2hr OGTT: fasting glucose– 5.3 mmol/L, 2hr blood glucose– 5.2mmol/L, total cholesterol– 5.40 mmol/L, triglycerides– 1.79 mmol/L, LDL-cholesterol– 3.35 mmol/L, HDL-C 0.98 mmol/L, ALT, AST– 60 IU/L, 65 IU/L, Abdominal ultrasound– fatty liver infiltration
- Parents are Aboriginal Canadians and:
 - Mother: BMI of 35 kg/m^2
 - Father: BMI of 40 kg/m^2
- Mom had GDM while pregnant with Jack; Birth weight was 9lbs 8oz
- Jack's parents work long hours and are inactive

The next step is to organize that information into the 4M's Framework and identify any drivers and barriers to weight management. Below is the Framework with the types of information that could be filed under each heading.



For our Case Study on Jack, this is what the 4Ms would include:



And here are the identified modifiable **Drivers** and **Barriers** of weight management for Jack and his family:

- Drivers:
 - Skipping breakfast
 - Inadequate/poor quality sleep?
 - High screen time/ low activity

- Barriers:
 - Bullying/poor body image?
 - Busy household/parents work hours
 - Multiple care givers- differing views on nutrition
 - Poor connection at school

With Jack's health information sorted into the **4Ms** and the **Drivers** and **Barriers** identified, it becomes easier to **ADVISE** Jack and his family on his specific obesity related health risks and to discuss treatment options through which a patient's individual careplan can emerge.

ADVISE and AGREE on a Management Plan (Careplan)

- Careplans should be **REALISTIC** and **SUSTAINABLE**.
- When working with adolescents, be mindful of need to set goals with both the adolescent and parent(s) as their goals may differ
- When working with families of younger children, it may be most appropriate to set goals with parents only, about the home food environment, the child's access to physical activity opportunities, their health behaviors, etc..
- Careplans should be focused on **ADDRESSING** the **DRIVERS** of weight gain (e.g. anxiety, sleep apnea, family stressors, etc.)
- The **SUCCESS** of treatment should be measured in terms of improvements in **HEALTH** and **WELL-BEING** (e.g. self-esteem, body image, sleep, fitness, blood sugars, etc.)

Using your patient's 4Ms, Drivers and Barriers, identify 2-3 of the Family-Based Treatment Options (below) that would be most realistic and beneficial for your patient. These options will form the basis, or "Puzzle Pieces", of their individual careplan.



Sleep

- management interventions can significantly improve eating and activity behaviours as well as mood and school performance.

Eating Behaviours

- should focus on eating & drinking hygiene. Extreme and “fad” diets are not sustainable in the long-term.

Physical Activity

- interventions should aim at reducing sedentariness and increasing daily physical activity levels to promote fitness, overall health, and general well-being , rather than focusing on “burning calories”.

Sedentary Behaviour

- should be limited through minimizing recreational screen time to less than 2 hours per day, choosing active transportation over motorized, and increasing active play and active family time.

Mental Health

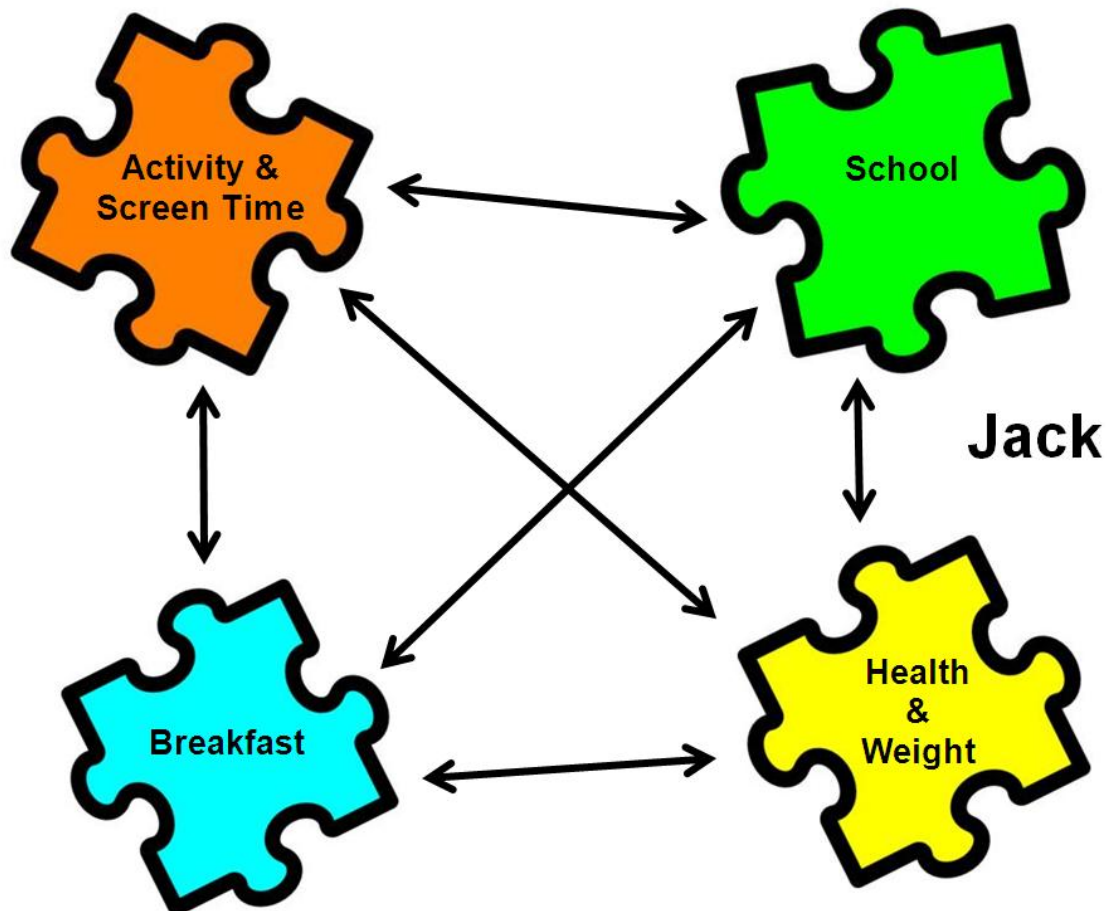
- treatment referrals to help manage underlying /co-morbid psychological issues
- interventions can improve body-esteem, self-esteem, reduce emotional eating, and promote coping strategies.

Bariatric Surgery

- may be considered for adolescents who've reached their final adult height, with BMI>40, and with obesity related health complications. Candidates & their families are required to have completed a multidisciplinary 6-month presurgical intervention.

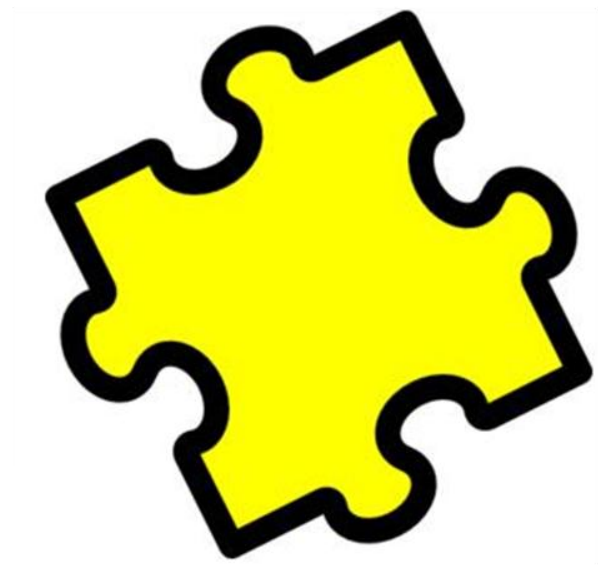
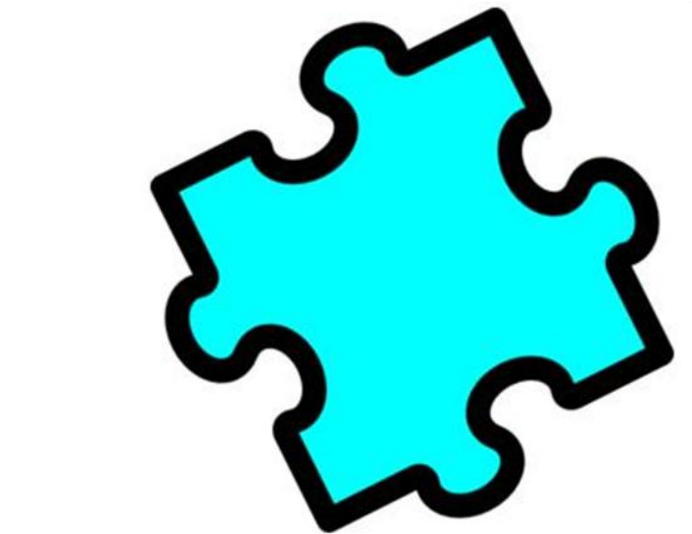
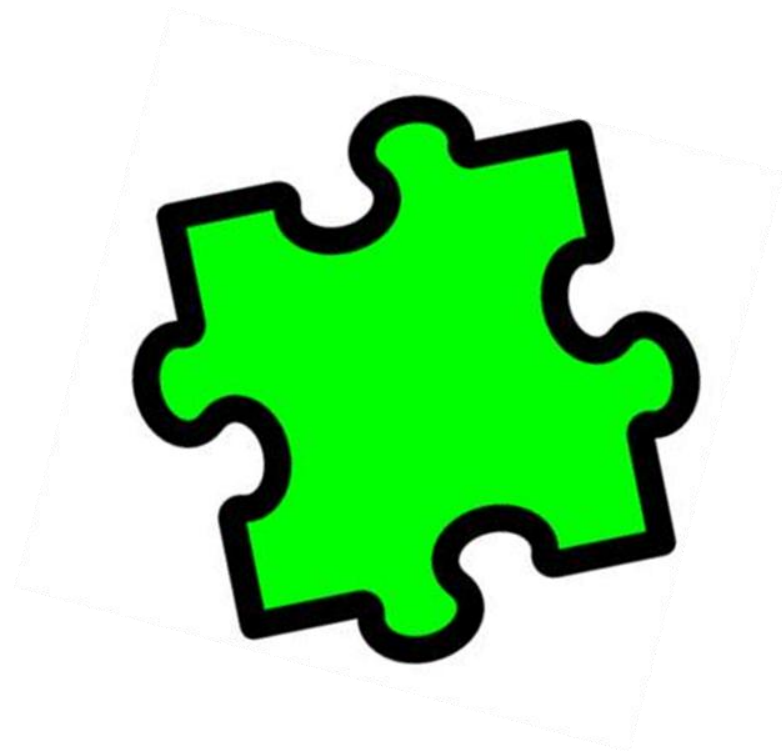
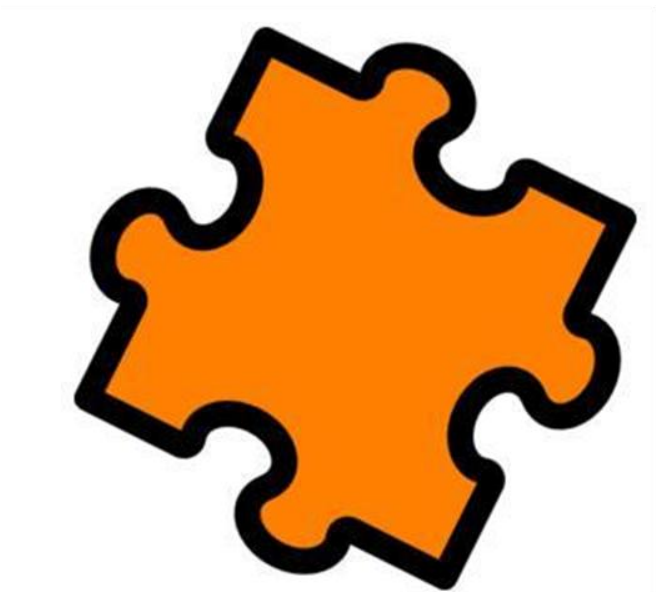
The 2-3 identified treatment options can then be presented to the family during the **AGREE** step” in the form of “Puzzle Pieces,”.

The actual names of the puzzle pieces can be modified for each patient e.g. Eating Behaviours could become Hunger Management, Breakfast, Meal Planning, Sugar-Sweetened beverages, etc. depending on the focus you and your patient would like to take.



The idea is that you are helping to build the “Strong, beautiful and healthy puzzle” of your patient. The base piece (yellow) is the “Health & Weight” piece and the treatment options become the puzzle pieces (orange, blue and green) that, when implemented/followed, can help further strengthen the base piece – with the goal of creating the patient “health puzzle” that depicts a healthy life in which your patient can dream big and meet their goals.

See next page for Puzzle Piece template.



Following agreement on the areas of focus and presenting the family with the Puzzle Pieces, a detailed careplan is then generated and sent to the families in the days following this initial appointment.

The careplan has a standard template that has areas populated based on the individual patient. On the next few pages you will find:

1. A blank careplan template (used by CHEO's Centre for Healthy Active Living's program)
2. A completed careplan (based on the puzzle pieces depicted on page 9) for Jack and his family

Patient Contact Information

Date

Dear XXXX,

It was great to meet with you on {date}. We look forward to working with you and your family. Your next clinic appointment is **{date} with Dr. XXX at our Centre.**

Below you will find the care plan we established together at our meeting:
Healthy and beautiful & strong bodies come in all shapes and sizes. We want you to remember that weight management is not easy and that our biology/genetics and the society we live in are the biggest reasons for that. Our team would like to help support you in achieving and maintaining good health (emotional and physical).

As discussed on the day of the assessment, we would like to invite your family to our CHAL *** group. Each week, various topics are covered that relate to health and health behaviours (body image, self-esteem, mood, nutrition, physical activity, etc.) and how to implement change within the family. Group programming is our primary method of working with families here at CHAL. One of the benefits is that it gives parents a chance to meet with other parents who might be facing similar challenges – the same for the youth when they are old enough to be involved in group. It is often a place where you can learn and receive support from others as well as share your own knowledge and experiences that might help others.

Over the course of the assessment day, we identified the following health complications:

Current health complications	<ul style="list-style-type: none">• XXXX• XXXX• XXXX
-------------------------------------	--

Below are the areas identified by yourself and our team that, if worked on, will likely improve the health complications listed above:

Areas of focus	<ul style="list-style-type: none">• XXXX• XXXX• XXXX
-----------------------	--

****each area (puzzle piece) identified is expanded on, below.*

Additional Assessment Findings

***any of the areas below that were included as an area of focus above, are removed from here.*

Medical Assessment:

Nutrition:

Physical Activity:

Mental Health:

Follow-up:

1. We would like to invite *** to our CHAL *** Group. We will contact you with further information
2. We will continue to follow *** in clinic with an appointment in 6 months and then annually with questionnaire measures. We will also repeat the 2 Hour OGTT on an annual basis.
3. Your next clinic appointment is on {date} with Dr. XXX at our Centre.
4. For any questions or concerns, please contact the CHAL nursing case manager at ***.

Regards,

CHAL team

Jack Smith
123 Sample Rd
Canadaville, ON
K1H 8K7

June 23, 2015

Dear Mr. and Mrs. Smith and Jack,

It was great to meet with you on Monday, June 22, 2015. We look forward to working with you and your family. Your next clinic appointment is Thursday, December 17, 2015 with Dr. XXX at our Centre.

Below you will find the care plan we established together at our meeting:

Healthy, beautiful & strong bodies come in all shapes and sizes. We want you to remember that weight management is not easy and that our biology/genetics and the society we live in are the biggest reasons for that. Our team would like to help support you in achieving and maintaining good health (emotional and physical).

As discussed on the day of the assessment, we would like to invite your family to our CHAL Family Parent group. Each week, various topics are covered that relate to health and health behaviours (body image, self-esteem, mood, nutrition, physical activity, etc.) and how to implement change within the family. Group programming is our primary method of working with families here at CHAL. One of the benefits is that it gives parents a chance to meet with other parents who might be facing similar challenges – the same for the youth when they are old enough to be involved in group. It is often a place where you can learn and receive support from others as well as share your own knowledge and experiences that might help others.

Over the course of the assessment day, we identified the following health complications:

Current health complications	<ul style="list-style-type: none">• At risk for obstructive sleep apnea• High triglycerides, low HDL-cholesterol• Nocturnal enuresis
-------------------------------------	--

Below are the areas identified by yourself and our team that, if worked on, will likely improve the health complications listed above:

Areas of focus	<ul style="list-style-type: none">• Activity & Screen Time• Breakfast• School
-----------------------	---

Activity & Screen Time

Being able to create and maintain a good balance between the amount of time spent being sedentary (e.g. engaged in screen time) and physically active can help people achieve and maintain very important health benefits including:

- Improved mood
- Increased confidence and self-esteem
- Improving body esteem (feeling good about your body) and having a better understanding of what your body is capable of doing
- Better quality and quantity of sleep
- Opportunities for social interactions – gaining the confidence and skills necessary to make new friends, improving communication skills, getting better at expressing your emotions, and having something outside of school to focus on and feel good about

Jack expressed an interest in martial arts, as discussed today, there are facilities near you that offer martial arts classes for Jack's age group on the weekend – making it easier for you to get him there.

In working towards creating balance between screen time and physical activity, it can be helpful to create clear screen time limits in the house that apply to everyone. Here are some things to consider:

1. The limits should help clarify when during the day/evening screen time can occur and when screens need to be turned off and other activities engaged in.
2. No screens on during meal and snack times.
3. Screens (smartphone, TV, iPod, computer, iPad, etc.) are very stimulating to the brain cells - confusing them into thinking it's not nighttime - and so when we use screens close to the time when we want to sleep, it delays the time we fall asleep and can affect the quality of our sleep. Remove screens from bedrooms and avoid screen time within 30-60 minutes of bedtime. Replace screens as the tool used to fall asleep with a non-screen related and calming activity such as reading a (paper) book or listening to music.
4. Current Canadian Guidelines recommended the following screen time maximums:
 - For those under 2 years of age, screen times are not recommended
 - For children ages 2-4, screen time should be limited to under 1 hour per day
 - Children ages 5-17 should have no more than 2 hours of recreational screen time per day (screen time related to school work is not included in this).

Breakfast

Over-hunger often leads to over-eating. This is the body's natural response to being under-fed and it's very difficult to ignore this biological drive to eat....and sometimes eat a lot! Eating regularly throughout the day (starting with breakfast) not only fuels your body and brain for optimal physical and mental performance but it helps to manage your hunger, allowing you to make healthy food choices after school and throughout the evening.

Start small with breakfast since something is better than nothing. Once this becomes a habit, aim for a balanced breakfast that includes food from at least three food groups (see attached handouts for quick and balanced breakfast ideas). If possible, sit down at the kitchen table with others to eat breakfast and keep the screens off (e.g. TV, smart phone, tablets).

School

As we talked about at the end of the assessment day, it sounds as though Jack is having quite a bit of difficulty at school, both in terms of his academic achievement and peer relationships. It is recommended that parents speak with the school about to try to get a sense of the following:

- How Jack is doing academically – are there difficulties with certain subjects or tasks? Are there any problems with attention?
- How Jack is doing socially – how does he get along with his classmates? Does he have friends in class? What does he do at recess? Is there any bullying that has been observed?

Based on what school staff report, we can then decide as a team, whether a psychoeducational assessment may be helpful. As well, we can work with the school to help Jack to feel more confident and included with his peers. We may also want to look for other opportunities for socializing, outside of school.

Additional Assessment Findings

Medical Assessment: Jack's blood sugars were normal with no sign of diabetes or pre-diabetes- which is great news.

Jack does have elevated triglycerides (1.79 mmol/L- normal is less than 1.70 mmol/L) and low levels of HDL-C "good cholesterol" (0.98 mmol/L- normal is greater than 1.03 mmol/L) This pattern can be associated with higher than average risk for future type 2 diabetes and/or heart disease. This risk can decrease through our eating/drinking, activity and sleep habits and effective management of our stress levels. If you would like any extra support with this, please do not hesitate to contact **** (registered dietitian) and/or ***** (exercise specialist) and/or **** (psychologist).

Sleep is very important for our bodies. If we don't get enough sleep at night and/or the quality of our sleep is poor it can affect our body weight, appetite, mood, energy level and ability to concentrate. Jack needs 10-11 hours of good quality sleep per night. We would like to look at the quality of Jack's sleep by arranging for him to have a sleep study done. The sleep lab will be in touch with an appointment for this.

Follow-up:

1. We would like to invite Jack's to our CHAL Family Parent Group. We will contact you with further information including dates and time.

2. We will continue to follow Jack in clinic with an appointment in 6 months and then annually with questionnaire measures. We will also repeat the 2 Hour OGTT on an annual basis.
3. Your next clinic appointment is on Thursday, December 17, 2015 with Dr. XXX at our Centre.
4. For any questions or concerns, please contact the CHAL nursing case manager, at 613-555-5555.

Regards,

CHAL team