# **PLTW** Biomedical Science

# **Project 4.4.2: Resource Sheet**

Patient #1 – John Martin

John is a 58 year old father of 7. All of his children have moved out of the house, so he spends more and more time at work. He has recently been thinking about retiring from his successful yet stressful career as a stock broker. He has smoked 1-2 packs of cigarettes a day for the past 30 years. Recently, after two incidents of angina, his doctor strongly advised him to quit. John increased his trips to the gym from 3 to 5 days a week and cut out fast food at lunch, but he can't seem to give up the cigarettes. John's parents did not have heart disease, but his twin brother had triple bypass surgery last month.

Height	6' 3"
Weight (lbs)	195
Waist Circumference (in.)	36
Blood Pressure	148/85
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	190
<ul> <li>LDL (mg/dL)</li> </ul>	127
HDL (mg/dL)	39
Triglycerides (mg/dL)	128
Fasting Blood Sugar (mg/dL)	95

# Patient #2 – Megan Creig

Megan is a 44 year old single computer programmer. She spends countless hours at her desk at work and only gets up to heat up her lunch or to use the restrooms (which she actually finds herself doing more of these days). She snacks all day long at her desk on chips and candy and drinks 4-6 cans of regular soda a day. Many of her colleagues smoke, but she has not picked up a cigarette since she quit in college. Megan likes to go hiking on the weekends, but she has not been able to do much of that since she broke her left ankle. Her ankle has healed, but she still feels sluggish and unmotivated. Megan has a family history of high blood pressure and has been on medication for her blood pressure for the past 8 years. Her maternal aunt has Type 2 diabetes. Megan has never had any procedures related to her heart and has never felt any chest pain.

Height	5' 6"
Weight (lbs)	168
Waist Circumference (in.)	32"
Blood Pressure	122/75
Cholesterol	
Total (mg/dL)	245
<ul> <li>LDL (mg/dL)</li> </ul>	146
<ul> <li>HDL (mg/dL)</li> </ul>	50
Triglycerides (mg/dL)	175
Fasting Blood Sugar (mg/dL)	125

# Patient #3 – Amanda Fox

Amanda is a 39 year old woman with sickle cell disease. She is taking medications to manage her disease and works with an acupuncturist to help mediate her pain crises. Amanda has two children and runs a small dessert business from her home. She has always struggled with her weight, but in the last few years, she has found it very difficult to shed unwanted pounds. She exercises on and off when she can, but it's often just a few laps in their pool when she is watching the kids. Her doctor has been monitoring her blood pressure as it has been borderline high on the last two appointments. Amanda experiences occasional heart palpitations. Her last EKG was normal; however, her doctor wants her to wear a device called a Holter monitor for a day or two to monitor her rhythms. Amanda's mother and her maternal aunt both developed Type 2 diabetes later in life. Amanda never met her biological father, but her mother thinks he had a history of heart disease and hypertension.

Height	5' 10"
Weight (lbs)	195
Waist Circumference (in.)	36
Blood Pressure	138/90
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	245
<ul> <li>LDL (mg/dL)</li> </ul>	140
HDL (mg/dL)	62
Triglycerides (mg/dL)	115
Fasting Blood Sugar (mg/dL)	99

#### Patient #4 – Ramon Jordana

Ramon is a 60 year old social worker who spends most of his days counseling troubled youth. Ramon has been in a wheelchair since a bad car accident when he was 18 years old. He takes a daily aspirin and even though his doctor recommended cholesterol-lowering medications on more than one occasion, he has chosen to target his cholesterol with diet and exercise. He eats plenty of whole grains and limits saturated fats. He joined a wheelchair basketball league and is enjoying getting back into sports. Ramon has one sister who had angioplasty and a stent at age 62 and a brother who died of a massive heart attack at age 58. Both of Ramon's parents are still alive. Ramon occasionally smokes a pipe, but he has never tried cigarettes.

Height	5' 7'
Weight (lbs)	196
Waist Circumference (in.)	38
Blood Pressure	120/71
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	190
LDL (mg/dL)	100
<ul> <li>HDL (mg/dL)</li> </ul>	39
Triglycerides (mg/dL)	75
Fasting Blood Sugar (mg/dL)	82

# Patient #5 – Tony Farina

Tony is a 42 year old contractor who helps with home renovations. He had angioplasty last fall to open up a clogged vessel. Since then, he has decided to cut out all red meat from his diet and he takes a daily multivitamin. He does still have quite a sweet tooth and has a few beers every day after work. So far, he has felt just fine, although every now and again he feels a tingling sensation in his left calf. Because of this pain and his history of heavy smoking, his doctor wants to evaluate him for peripheral artery disease and look for a potential blockage in his leg. Tony knows that both of his parents take medication for high cholesterol, but he does not think anyone else has had a heart-related incident or procedure. His dad does have Type 2 diabetes.

Height	6' 1"
Weight (lbs)	179
Waist Circumference (in.)	34
Blood Pressure	150/100
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	200
<ul> <li>LDL (mg/dL)</li> </ul>	110
<ul> <li>HDL (mg/dL)</li> </ul>	60
Triglycerides (mg/dL)	160
Fasting Blood Sugar (mg/dL)	105

## Patient #6 – Rebecca Santos

Rebecca is a 28 year old nursery school teacher who runs marathons in her free time. She feels she is in such good shape she does not need to go to the doctor. She only agreed to go in for a checkup as both of her brothers recently found out they have extremely high cholesterol and her father just had his 2<sup>nd</sup> heart attack. As a family, they volunteered to be part of a heart disease study for African American families. Amanda does not drink alcohol and she eats a low-fat, high protein diet when she is training. She sometimes feels a bit of chest pain when she runs, but she attributes it to over-training. Her mother has been told that she is prediabetic, but she has not been formally diagnosed with diabetes.

Height	5' 4"
Weight (lbs)	122
Waist Circumference (in.)	29
Blood Pressure	100/65
Cholesterol	
Total (mg/dL)	356
LDL (mg/dL)	185
<ul> <li>HDL (mg/dL)</li> </ul>	60
Triglycerides (mg/dL)	95
Fasting Blood Sugar (mg/dL)	101

#### Patient #7 – Kevin Wong

Kevin is a 46 year old widow and father of three boys. He shuttles his sons to school and sports practices every day of the week. Many of the family's meals are consumed out at restaurants or quickly in the car. Kevin has severe asthma and food allergies to both peanuts and milk. Because of his asthma he has always shied away from physical exertion. In the last 5 years, he has put on over 100 pounds, most of which is right at his waist. He was rushed to the hospital last month with a mild heart attack. Subsequent testing revealed two blocked coronary arteries that can be best treated with bypass surgery. Kevin's mother died during surgery in her 50s, so he is cautious about having the procedure done.

Height	5' 11"
Weight (lbs)	295
Waist Circumference (in.)	42
Blood Pressure	145/90
Cholesterol	
Total (mg/dL)	265
LDL (mg/dL)	155
<ul> <li>HDL (mg/dL)</li> </ul>	38
Triglycerides (mg/dL)	165
Fasting Blood Sugar (mg/dL)	110

#### Patient #8 – Clementine Frost

Clementine is a single 34 year old woman. She is a movie producer and has been working constantly for the past two months. Some nights she only gets an hour or two of sleep. She has been drinking energy drinks and coffee all day long to keep her going. She has recently gone from a casual smoker to about 1 pack a day. She is a Type 1 diabetic and has an insulin pump. She watches her intake of sugar and tries to exercise when she can escape for a quick run. She has actually lost 10 pounds in the past month. Clementine passed out one day on the set last week and the doctor informed her that she had a transient ischemic attack (TIA) or mini-stroke. Clementine did not think much of this until her mother told her that her grandmother had died of a stroke 20 years ago.

Height	5' 2"
Weight (lbs)	98
Waist Circumference (in.)	24
Blood Pressure	137/91
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	228
LDL (mg/dL)	143
HDL (mg/dL)	50
Triglycerides (mg/dL)	100
Fasting Blood Sugar (mg/dL)	90

# Patient #9 – Russell Bates

Russell is a 69 year old physician who travels with a medical group servicing third world nations. He has always been extremely healthy and figured that since he was a doctor, he would know if something was wrong. His life is very high stress, but he tries to meditate at least once a day. He takes daily supplements such as Echinacea, fish oil, and green tea extract. He has been infected with both tuberculosis and malaria, but he has never had any issues with his heart. Recently, he has felt occasional heart palpitations and suspects he is suffering from premature ventricular contractions (PVCs). His brother and his sister are now on medication for blood pressure and his brother is having valve replacement surgery next month. His mother died when he was young from cancer, but his father lived to be 97 years old. Russell drinks plenty of water and eats only the local cuisine when he is traveling. At times, food can be sparse.

Height	5' 11"
Weight (lbs)	150
Waist Circumference (in.)	30
Blood Pressure	142/75
Cholesterol	
Total (mg/dL)	187
<ul> <li>LDL (mg/dL)</li> </ul>	100
<ul> <li>HDL (mg/dL)</li> </ul>	40
Triglycerides (mg/dL)	87
Fasting Blood Sugar (mg/dL)	90

# Patient #10 – Vanessa Hart

Vanessa is a 72 year old grandmother of 16. Vanessa has always had a heart murmur, but it has never progressed to anything more serious and has not affected the function of her heart. She tries to keep up with exercise, but has not been able to go for walks like she used to before she underwent her hip replacement surgery five years ago. Vanessa had a stent inserted to open a blocked artery almost 10 years ago. She stopped going to her cardiologist and only sees her primary care physician when she has a cold. Recently she has felt some pain in her back and upper arm. These instances are accompanied by shortness of breath and slight nausea. She has two siblings with diabetes and her dad died of a stroke at age 45.

Height	5'4"
Weight (lbs)	179
Waist Circumference (in.)	37
Blood Pressure	138/83
Cholesterol	
Total (mg/dL)	250
LDL (mg/dL)	154
<ul> <li>HDL (mg/dL)</li> </ul>	49
Triglycerides (mg/dL)	152
Fasting Blood Sugar (mg/dL)	120

# Patient #11 – Jasper Covington

Jasper is a 24 year old soldier who just returned from his final tour overseas. He has been trying to relax now that he is home, but he feels the need to always be on the go. He reports that at times it feels like his heart is racing. He is a Type 1 diabetic, but he has been less than vigilant with taking his insulin. He reports that his vision is often a bit blurry, but he has not had time to schedule an appointment with his eye doctor. Jasper continues to go running as often as he can with his wife and lifts weights to put on muscle mass. He has only smoked once or twice when he was in his teens. He eats what he wants as he has never had to worry about his weight. Jasper likes to unwind at night with his friends at the local pub. His father and mother both have a history of high blood pressure and his father had his first heart attack at 39. His brother had his first heart attack at 32.

Height	6' 1"
Weight (lbs)	168
Waist Circumference (in.)	32
Blood Pressure	140/88
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	239
<ul> <li>LDL (mg/dL)</li> </ul>	140
HDL (mg/dL)	58
Triglycerides (mg/dL)	198
Fasting Blood Sugar (mg/dL)	120

# Patient #12 – Marjorie Cooper

Marjorie is a 46 year old mother of three who has worked as a nurse in the neonatal care unit for almost 20 years. For the past 10 years, she has worked the night shift. She is used to the schedule but she still does drink a good amount of coffee to stay alert. She tries to sleep in as much as she can when she gets home, but most days, she can only get 4-5 hours. She plays golf once or twice a month with her cousin to get some exercise, but most often they take a golf cart instead of walk. Marjorie has celiac disease and has to follow a gluten free diet. She has always struggled to maintain a healthy weight. Marjorie has never smoked although both of her parents did. Her sister recently had an abnormal cardiac stress test and goes in next week for a cardiac catheterization to examine her vessels. Her mother never had any heart issues, but her dad had both high cholesterol and high blood pressure. He had angioplasty at age 68. She reports that no one in her family has had diabetes.

Height	5' 6"
Weight (lbs)	170
Waist Circumference (in.)	34
Blood Pressure	160/92
Cholesterol	
Total (mg/dL)	212
<ul> <li>LDL (mg/dL)</li> </ul>	135
HDL (mg/dL)	42
Triglycerides (mg/dL)	120
Fasting Blood Sugar (mg/dL)	96

#### Patient #13 – Pablo Suarez

Pablo is a 52 year old elementary school teacher. In his spare time, he coaches soccer for his nephew's team and enjoys completing small carpentry projects around the home. Last year he was experiencing some mild chest pain and found out he had a blocked coronary vessel. He had a stent placed in the vessel and has since felt back to his old self. He now takes an aspirin as well as a multivitamin every day. He takes medication for his cholesterol and has tried to cut out candy and soda from his diet. He smokes casually when out with friends, but his wife smokes 2-3 packs a day in their home. He knows he should probably quit all together, but he figures it's only 1-2 a week. Pablo is adopted and does not know much about his medical history. Pablo has been relatively healthy all of his life, although he has had a few issues with blood clots after minor injuries.

Height	5' 10"
Weight (lbs)	208
Waist Circumference (in.)	39
Blood Pressure	137/88
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	230
<ul> <li>LDL (mg/dL)</li> </ul>	136
HDL (mg/dL)	41
Triglycerides (mg/dL)	170
Fasting Blood Sugar (mg/dL)	86

# Patient #14 – Jude Charles

Jude, a 47 year old owner of an adventure sports company, had a heart attack last year. Even though his doctor told him to slow down, he refuses to give up skiing and snowboarding. He gave up smoking and limits his alcohol to 1-2 drinks a week, but he says he can't live without feeling alive out on the slopes. Jude eats a relatively healthy diet, but he loves red meat and eats steak or hamburger 3-4 times a week. He has a family history of high blood pressure, and his younger brother has just been diagnosed with Type 2 diabetes. His mom passed away after a stroke at age 62. His aunt, his mom's sister, just had a stroke last week. Luckily she was able to get to the hospital in time and will recover.

Height	6' 6'
Weight (lbs)	195
Waist Circumference (in.)	36
Blood Pressure	139/89
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	255
<ul> <li>LDL (mg/dL)</li> </ul>	170
HDL (mg/dL)	49
Triglycerides (mg/dL)	137
Fasting Blood Sugar (mg/dL)	124

#### Patient #15 – Sherese Randall

Sherese is a 46 year old single mother of two. Her husband passed away a little over a year ago and she's still adjusting to life without him. She still meets with a grief group and while she has rough days, she does not feel as depressed as she had earlier in the year. Sherese wants to shed some unwanted pounds so she has tried to eliminate almost all carbohydrates from her diet. She has lost a bit of weight, but she complains of lack of energy. She doesn't necessarily feel chest pain, but she does feel a tightness lately that worries her. Sherese also thinks she may be experiencing early menopause, so she has set up an appointment with her primary care physician. Both of her parents had high cholesterol, and her mother was diagnosed with diabetes late in life. Sherese has been on medication for her blood pressure for the past two years, but she admits to not taking it every day since her husband has been gone.

Height	5'3"
Weight (lbs)	155
Waist Circumference (in.)	36
Blood Pressure	160/85
Cholesterol	
<ul> <li>Total (mg/dL)</li> </ul>	210
<ul> <li>LDL (mg/dL)</li> </ul>	150
<ul> <li>HDL (mg/dL)</li> </ul>	37
Triglycerides (mg/dL)	130
Fasting Blood Sugar (mg/dL)	130