

Name :Margaret Habiba Nkem-Ajoku

Student Number: :1809941

Name of Lecturer:Adesuwa Ajayi

Course Code:BMHP5003

Course Title: Introduction To Physiology

This report is focused on conducting a health assessment on a patient who suffers from type two diabetes. In an attempt to draw an effective health plan the impact of the disease on the patient will be examined. A health questionnaire will be applied in order to gain insight on the physiological abnormalities experienced by the patient. Based on the finding recommendations will be proffered.

1.1 Case Study

Blessing Ekpe (not real name) is a fifty year old black African who migrated into the United Kingdom at the age of twenty. Blessing is a single mother of two sets of twins aged nine and six. She works full time as a packer in a cold warehouse. Being a single mother has placed Blessing at a precarious situation financially. In order to meet the needs of her children and keep up with her bills Blessing mentioned she constantly takes on additional shifts at work. The long shifts mean she gets home at ungodly hours and most of the time she is too tired to cook.

As a result of her hectic schedule Blessing resorted to stocking up her freezer with ready made meals which she found to be convenient. Being West African her diet was rich in carbohydrates and starch which is a typical diet of people from the region. Over time, Blessing added weight and was termed as being clinically obese. She ascribed her weight gain to eating at late hours and also her increase in the consumption of alcohol which she took to curb depression and anxiety.

Roughly two years ago Blessing mentioned she began to feel extremely tired at work, she was also drinking a lot more as a result of being increasingly thirsty. The need to wake up at night to pass urine became a concern as well. She kept pushing off seeing the GP until she had a blackout at work and was rushed to the hospital and was subsequently hospitalised. Series of tests were conducted and from the outcome of the results Blessing was diagnosed with type two diabetes.

The prevalence of type two diabetes is higher in black women than women from other races (Charlotte et al 2017). Other writers also maintain that African women are more insulin resistant than Caucasian women (Goedecke et al 2017). It can be safely deduced that being a woman of African descent and also being middle aged stood as susceptible factors in being diagnosed as diabetic.

Prior to her discharge from hospital, Blessing was educated by a diabetic nurse on how to manage her condition. She was made aware of the consequences of not adhering to her new regime which are the need to eat healthy, cut down on alcohol, exercise frequently and take her medication as at when due.

Type two diabetes if not treated will lead to further detrimental health consequences for Blessing. It is imperative for these abnormalities to be highlighted for the purpose of getting Blessing enlightened for the benefit of managing her condition.

Diabetic Retinopathy

People with diabetes are at risk of diabetic retinopathy. Diabetic retinopathy is noted to be the most frequent cause of blindness. In this case the retina is damaged as a result of fluid that has leaked from blood vessels into the retina. The patient becomes blind in extreme cases. Early detection of diabetic retinopathy is crucial to prevent blindness (Achara et al 2008). A study also reveals that in black women a markedly increased risk of retinopathy is present despite glycaemic exposure similar to men (Hermes and Rousseau 2020). On this premise it is necessary for Blessing to endeavour to keep up with her routine eye screening check-ups.

Stroke

Blessing will need to ensure her condition is kept under control in bid to reduce the chances of getting a stroke. Diabetes promotes the risk of stroke, elevates inflammation, and exacerbates vascular and white matter damage post stroke thereby hindering long term functional recovery (Venkat and Chen 2020). By keeping blood pressure, blood glucose and cholesterol within target ranges can reduce the risk of getting a stroke (Diabetes.co.uk)

Kidney Nephropathy

Type two diabetes mellitus is the prevalent cause of chronic renal disorders and end stage kidney disease. It is the major cause of dialysis and kidney transplant. Diabetes results in a wide range of alterations in the renal tissue. Again diabetes mellitus induces the proliferation in the kidney precisely in proximal tubules which is an early hyperplasia. This situation sees the reduction of renal barrier potency and more leakage occurs due to protein glycation in the basement membrane (Pourghasem et al 2015). Fortunately Blessing has her blood pressure under control and has a lower risk of suffering from a burst blood vessel.

Diabetic Neuropathy

This occurs when the nerves are damaged in diabetics. High blood sugar potentially injures nerves all through the body. Diabetic neuropathy most often damages nerves in the feet and legs. Depending on the nerves affected diabetic neuropathy symptoms range from numbness and pain in the legs. Blessing however mentioned that she has been experiencing occasional numbness in her legs and hands.

Health analysis

Diet	• She is highly dependent on ready prepared meals and also concentrates on a diet rich in carbohydrates • The absence of a balanced diet shows the body is not getting needed nutrients • Rarely prepares home cooked meals
Weight and Age	She has become overweight drastically within a few years, near to obese (BMI of 45). Because she is 50, Women over the age of 40 are more likely to be at risk of having diabetes as they tend to gain weight and eat more.
Lifestyle Choices	• She became a regular drinker of alcohol in recent years • She has no social life. The only places she revolves around are her workplace ,takin the children to and from school and occasional grocery shopping • She chooses to work full time for additional income.
Employment	She works full time as a fruit packer in a warehouse. The job does not require her to be overly active.It involves standing on the same spot for several hours selecting fruits and ensuring they get packaged.
Ethnicity	Blessing is from an African background which makes her more susceptible to be at risk of diabetes
Inherited traits	Although genetics can be a common factor of diabetes, it has not run in her family, but her children can still be at risk of having it.

HbA1C test

HbA1C is an important indicator of long term glycaemic control and has the ability to reflect the cumulative glycemic history of the preceding two to three months. The valuable information provided by a single HbA1C test has rendered it as a reliable biomarker for the

diagnosis and prognosis of diabetes. HbA1c test provides evidence about an individual's average blood glucose levels during the previous two to three months which is the predicted half-life of blood red blood cells. The HbA1c test is recommended to be performed at least twice a year in diabetes patients with stable glucose levels (Sherwani et al 2016), type one diabetes mellitus and type two diabetes mellitus.

Glucose Tolerance Test

A glucose tolerance test is used to determine an individual's ability to handle glucose in the body. The test is able to show if a person can metabolize a standardized measured amount of glucose. The results are termed as abnormal or impaired and normal. The test (glucose test) is one of the tests used to diagnose gestational diabetes mellitus, type one diabetes mellitus and type two diabetes mellitus. Glucose tolerance test involves taking several blood samples over a period of two hours (Eyth et al 2020).

Three days preceding the test the Blessing will be advised to consume a normal diet or one that contains 150 grams of carbohydrates per day and will be required to arrive for the test eight hours prior to the test fasting. Multiple phlebotomies are used during the test (Eth et al 2020). Blessing will be made to consume the correct amount of glucose established by her weight. The results of the test will depend on the amount of glucose both before and after drinking the sweet glucose drink. The results will indicate if Blessing has diabetes or an impaired glucose tolerance.

Urine Test

Blessing will also need to undertake a urine test. This test will be performed in a clinical laboratory or at home using self-test kits and a sample of her urine. Urine tests can be performed for a variety of reasons, but in diabetics they are commonly used to look for ketones or microalbumin. Urine glucose can also be measured, but this is less valuable than blood glucose levels for diagnosis and monitoring of diabetes, so this is not commonly done as a way to monitor blood glucose status.

Care Plan

Diabetes as mentioned in the body of this report is a growing pandemic responsible for a large volume of deaths in the United Kingdom and the world in general. As a result of the growing number of people diagnosed with diabetes, it becomes necessary

to seek innovative strategies to improve the quality of life of sufferers through the implementation and delivery of effective treatment hence the importance of the introduction of a care plan.

The National Health Service England specifies that ‘... every person with a long-term condition or disability has a personalised care plan supporting them to develop the knowledge, skills and confidence.

The use of care plans to manage multiple long-term conditions — by assessing individual behaviour, setting joint goals, supporting self-management, and ensuring proactive follow-up — is based on Wagner’s Chronic Care Model. The model considers the need to provide support and structure to patients, and the fact that all long-term conditions have common challenges.

Professional	Role		
Diabetic Specialist Nurse	The specialist nurse will seek to provide the needed education and support to Blessing. The key responsibility of the specialist nurse will be to help and enable Blessing to self-manage her diabetes.		
Ophthalmologist	Currently Blessing has good eyesight however it is imperative that she keeps her routine appointments which are scheduled for once a year. Early detection will be beneficial for the commencement of treatment.		
Registered Dietitian	Blessing’s dietitian will work with her to assess her eating habits and support her to make the right lifestyle choices to manage her diabetes. The dietitian will also explain how to self-manage her diet and provide choices of healthy meals and snacks that meets her needs and support with what she consumes on a weekly basis. <table> <tr> <td>Community Nurse (Primary Carer)</td><td>The community nurse will be able to offer her advice about healthy living, diabetes treatments and initiation of insulin and other diabetes therapies that can be considered. They will also advise her about blood glucose</td></tr> </table>	Community Nurse (Primary Carer)	The community nurse will be able to offer her advice about healthy living, diabetes treatments and initiation of insulin and other diabetes therapies that can be considered. They will also advise her about blood glucose
Community Nurse (Primary Carer)	The community nurse will be able to offer her advice about healthy living, diabetes treatments and initiation of insulin and other diabetes therapies that can be considered. They will also advise her about blood glucose		

		monitoring and how to use a glucometer.

A care pathway is a multidisciplinary healthcare management tool based on healthcare plans for a specific group of patients with a predictable clinical course, in which the different tasks or interventions by the professionals involved in the patient care (nurses, physicians, social workers, pharmacists, physical therapists, social workers) are defined, optimised, and sequenced either by hour or day.

The patient will not be dealing with all the professionals at the same time; however, the individual in question will be seeing some more than others. Lifestyle changes such as being active with physical activities and eating healthy is all that is needed by some to manage their diabetes. However, type two diabetes is a continuing situation and overtime medication, coping strategies and support are required.

In order for Blessing to manage her condition she will need to adhere to a healthy lifestyle and also will need to keep her blood glucose under control with the help of prescribed medication. The importance of adhering to her medical regime cannot be overemphasised because it will reduce the risk of developing future complications. Blessing will need the following medication to treat her diabetes condition.

Incretin Mimetics - GLP 1 Analogues – This tablet is comprised of components that have multiple mechanisms of action. These tablets enhance glucose dependent insulin secretion, suppresses inappropriate elevated glucagon secretion, slows gastric emptying and decreases food intake. These drugs work by mimicking the incretin hormones that the body usually produces to stimulate the release of insulin in response to a meal. These medications should be used in conjunction with a diet and exercise to lower blood sugar (Latek et al 2019)

Alpha glucosidase Inhibitors – These tablets prolong the delay of absorption of carbohydrates from the small intestine and therefore have a lowering effect on postprandial insulin and glucose levels. It should be swallowed whole with little liquid or chewed with the first mouthful of food (William and Sheild 2020).

Biguanides (Metformin) - This medication helps to stop the liver from producing new glucose and enables the body's insulin to carry glucose into muscle and fat cells. It should be taken at least 2 or 3 times a day with a meal to help the insulin work at the right time (Manzella, 2019).

Support

Managing a long term ailment will come with its challenges as a result it is imperative Blessing is given all the necessary support from her healthcare professionals as well as family. With the emergence of person centred care Blessing is able to have a say in every aspect of her care. It is of utmost importance that her care plan is reviewed periodically in order to keep abreast with Blessing's needs both medically and socially. Blessing should be encouraged by her health care team to raise whatever concerns she may have regarding her health and care delivery.

Healthcare providers and professionals involved in the provision of care for Blessing have the opportunity to enhance self-management adherence by helping Blessing cope with the burdens of diabetes. These providers should be compassionate and encourage the patient to participate in the decision making process. Health care providers who modify their behaviour to focus on goal directed, participative and supportive approach will enhance their patient's motivation by reducing obstacles and clarifying the path towards self-management and satisfaction adherence outcomes (Hildreth et al 2019).

There are also various network groups and registered bodies that provide support to diabetic sufferers. Diabetes UK for instance has an online community where patients exchange knowledge and experience with other people with diabetes. Type 2 together is a forum where patients interact with one another in an informal and relaxed session led by trained volunteers who share experiences, support each other and make new friends. (Diabetes UK) Blessing should be encouraged to join such group. Being diabetic is a challenging ordeal and the need for a solid support network cannot be overemphasized.

Again on support, the National Health Service England has licensed the release of a support website. It is designed to provide needed information on type two diabetes and its treatment helps with adopting and maintaining healthy behaviour.

Furthermore the introduction of the website is focused at providing type two diabetes mellitus sufferers a different avenue of reaching or accessing support alongside more traditional group based structured education programs. (NHS website)

Coping and Managing Strategies

Efficient diabetes care is a crucial aspect of the disease. In relation to her diet it must be made unequivocally clear that the amount of food consumed is a fundamental determinant of human health. Diet constitutes an integral aspect of the management of diabetes which may involve diet alone, diet with oral hypoglycemic drugs or diet with insulin (Asif 2014).

Blessing mentioned in her questionnaire that her diet is comprised of processed food and is also rich in carbohydrates. As a result of the detrimental effects associated with indulging in a diet rich in starch and processed foods it becomes imperative to suggest that the Blessing is encouraged to change her diet into one that is beneficial. Healthwise. Objectives of dietary treatment of diabetes are to achieve optimal blood lipid concentration, prevent delay and treat diabetes related complications, to improve health through balanced nutrition and to achieve optimal blood glucose concentration.

The epidemic associated with type two diabetes has been attributed to unhealthy foods and a sedentary lifestyle which also favours the occurrence of being overweight. An unhealthy diet has been regarded as a major contributor to the development of type two diabetes mellitus

lifestyle interventions including dietary changes play an important role in the prevention and progression of impaired fasting glucose or impaired fasting glucose tolerance in type two diabetes and it is known that Nutrition therapy is an integral component of type two diabetes mellitus management, self-management, and prevention (Esposito et al 2015)

It is said that the most challenging part of the treatment plan is in determining what to eat. It is important that all members of her health care team are knowledgeable about diabetes nutrition and support its implementation. On this, Blessing will need to work with her dietician and follow a meal plan that is comprised of healthy options. The Mediterranean diet is popular in addressing diabetic challenges. the Mediterranean diet is antioxidative as well as anti-inflammatory mainly because of the high absorption of protective nutrients such as polyphenols, antioxidants, minerals, vitamins and dietary fibre, it is also marked by a reduced intake of proinflammatory aliments and nutrients such as refined sugars and starches, trans fatty and saturated fats and basically those foods that are known for excess energy intake (Esposito et al 2015)

Furthermore it will be beneficial for Blessing to familiarise herself with the various meal plans available on the NHS and diabetic support group websites. Blessing made no mention of eating fruits in the health care questionnaire (please refer to the appendix). The NHS encourages diabetics to include fruits and vegetables in their diet. Fruit and veg are naturally low in calories and packed full of vitamins, minerals and fibre. They also add flavour and variety to every meal. (NHS)

Blessing has the option of trying out fresh, frozen, dried and canned fruits. In order for her to get the required nutrients she should aim for a rainbow of colours to get as wide a range of vitamins and minerals as possible. Try to avoid fruit juices and smoothies as they don't have as much fibre.

Fruit and vegetables can help protect against **stroke**, **heart disease**, **high blood pressure** and some cancers(Diabetes UK). Blessing being diabetic is more at risk of developing these conditions.

Benefits of embarking on a healthy diet are:

- Helps to keep your digestive system working well
- Helps protect the body from heart disease, stroke and some cancers

How often does Blessing need to eat?

Blessing should aim to eat at least five portions a day. A portion is roughly what fits in the palm of a hand.

Examples of she can try

- sliced melon or grapefruit topped with unsweetened yogurt, or a handful of berries, or fresh dates, apricots or prunes for breakfast
- mix carrots, peas and green beans into your pasta bake
- add an extra handful of peas to rice, spinach to lamb or onions to chicken
- try mushrooms, cucumber, spinach, cabbage, cauliflower, broccoli, celery and lettuce for lower carb vegetable options
- try avocados, blackberries, raspberries, strawberries, plums, peaches and watermelon for lower carb fruit option.

Starchy foods are things like potatoes, rice, pasta, bread, chapattis, naan and plantain. They all contain carbohydrate, which is broken down into glucose and used by our cells as fuel. The problem with some starchy foods is that it can raise blood glucose levels quickly, which can make it harder for her to manage her diabetes. These foods have something called a **high glycaemic index**

There are some better options for starchy foods – ones that affect blood glucose levels more slowly. These are foods with a **low glycaemic index** (GI), like wholegrain bread, whole-wheat pasta and basmati, brown or wild rice. They also have more fibre, which will help to keep her digestive system work well. Since Blessing needs to cut down on her high consumption of carbohydrates she can start by reducing the intake on things like white bread, pasta and rice first.(Diabetes.UK)

Benefits

- The fibre helps to keep the digestive system healthy

Some affect the blood sugar levels more slowly

- Some affect the blood sugar levels more slowly
- Wholegrains help protect the heart

Blessing should try to have some starchy foods every day. For instance

- two slices of multigrain toast with a bit of spread and Marmite or peanut butter
- brown rice, pasta or noodles in risottos, salads or stir-fries
- baked sweet potato with the skin left on – add toppings like cottage cheese or beans
- boiled cassava, flavoured with chilli and lemon
- chapatti made with brown or wholemeal atta.

Meat and fish are high in protein and will help in keeping Blessing's muscles healthy. A healthy diet means she will need to eat less red and processed meat since it has been linked to cancer and heart disease. Oily fish like mackerel, salmon and sardines have a lot of omega-3 oil, which can help protect the heart. Benefits of introducing seafood to her diet are-

- Helps keep muscles healthy
- Oily fish protects the heart

Blessing needs to aim to have some food from this group every day. Specifically at least 1 or 2 portions of oily fish each week. But does not need to eat meat every day.

Blessing may be interested in trying the following

- a small handful of raw nuts and seeds as a snack or chopped with a green salad
- using beans and pulses in a casserole to replace some – or all – of the meat
- eggs scrambled, poached, dry fried or boiled
- grilled fish with masala, fish pie, fishcakes
- chicken grilled, roasted or stir-fry

Multi-disciplinary Teams

Continuous care for life changing and chronic conditions such as diabetes is best provided by a range of health professionals working together. Blessing will be receiving care from her general practitioner, medical specialists, diabetes educators, dieticians, optometrists and podiatrists. Blessing will be receiving care from four main healthcare professionals and they include:

Diabetologist -They are specialists usually based in hospital in clinics. Their clinical practice is focused on the diagnosis and treatment of all types of diabetes.

Diabetes Practice Nurse-They are seen as the backbone of diabetes treatment in the UK. Blessing will need to see both a diabetic nurse and a practice nurse for the management of her diabetes.

Registered Podiatrists-Medical podiatrists help with the treatment of foot injuries as well as complications from ongoing lower limb problems related with diabetes. Blessing may receive advice on appropriate suitable footwear and occasional examination of legs and feet to detect any problems.

Pharmacists-These days pharmacists do more than dispense drugs. Blessing will be able to receive advice and support with blood glucose monitoring systems, help with dental health products and glucose tablets and treatment.

It is important for the professional team to collaborate and communicate effectively in order to provide the best possible care to Blessing.

Complementary alternative treatment

Complementary alternative treatment is gaining increasing popularity as a result of the benefits accrued to its treatment. However Blessing will need to consult with her general practitioner and team of healthcare professionals prior to embarking on this route. On this note it is also known that the National Health Service approves of a number of alternative medicines therapies and general practitioners refer their patients to approved complementary practitioners.(NHS England)

Yoga practice is useful in the management of various lifestyle diseases including type two diabetes. The incorporation of yoga practice in daily life helps to achieve glycaemic control and reduces the risk of complications in

people with diabetes(Raveedran et al 2018).Many benefits are ascribed to the practice of yoga , results of a study reveal that as a result of practicing yoga diabetic sufferers experienced a significant reduction in fasting plasma glucose, low density lipoprotein, lowered cholesterol and exceptionally low density lipoprotein(Mondal et al 2018)

Type two diabetes has been strongly associated with psychosocial factors such as stress, anxiety, depression, and quality of life. As a result Blessing may also find yoga a useful tool in managing stress and finding some measure of relaxation. Yoga practice involves a relaxation component and a physical activity component.

Medical practitioners encourage dietary supplements and herbal medicine for the treatment of type two diabetes (Haun et al 2019). Dietary supplements may help Blessing have adequate nutrients in order to maintain good health. However Blessing should be careful not to replace supplements with a healthy diet. Certain supplements such as Vitamin D offer several health benefits, and there is growing evidence to suggest that some could be beneficial for people with diabetes.

Since Blessing is clinically obese she will need to begin an exercise regime due to the benefits accrued to a physical fitness routine . Readings from her BMI classifies Blessing as being severely overweight. In the care and management of people with type two diabetes exercise intervention is considered a cornerstone. A clinical guideline suggests that sufferers of type two diabetes Melitus should exercise permanently, they are recommended to exercise between three to five days weekly at a low intensity of oxygen intake. A minimum of a hundred and fifty minutes a week should be devoted to exercising and that resistance exercise should be combined with endurance exercise(Hansen et al 2013).

Blessing will need to consult with her general practitioner before embarking on a fitness regime however if she suffers from the following -untreated vision disturbance, sudden body weight loss, untreated wounds in lower extremities, peripheral neuropathy, frequent hypoglycaemic episodes and fasting hyperglycaemia engaging in exercise may be counterproductive.

Conclusion

This report has been consistent in stating that type two diabetes has an adverse negative impact on the human physiology and also shown the consequences of not adhering with the recommendations proffered in the care plan.

Living with a life threatening disease like diabetes is a daunting challenge for anyone as a result it is important that the healthcare providers responsible for providing care to Blessing

ensure that she is carried along in all decisions involving her care at all times. This report maintains that periodic reviews of the care plan is of paramount importance because it ensures that Blessing receives the appropriate treatment and support for her condition.

References

Asif, M. (2014) The Prevention and Control of type 2 Diabetes by Changing Lifestyle and Dietary Pattern, Journal Of Educational Health Promotion Vol.3, Issue 1

Charlot, M., Castro-Web, N., Tracy, B. and Bertrand, K. (2017) Prevalence of type two diabetes in black women . Cancer Causes and control Vol.28 Issue1

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=prevalence+of+type+two+diabetes+in+black+women&btnG=#d=gs_gabs&u=%23p%3DEtnpkcjWBLwJ

Diabetes.org.uk. 2020. *Diabetes and Your Emotions*. Available at:
<https://www.diabetes.org.uk/guide-to-diabetes/emotions>

Eyth, E., Basit, H and Smith, C (2020) glucose Tolerance Test
<https://www.ncbi.nlm.nih.gov/books/NBK532915/>

Hermans, M. and Rousseau, M. (2020) Established and novel gender dimorphisms in type 2 diabetes mellitus: Insights from a multi-ethnic cohort
<https://www.sciencedirect.com/science/article/abs/pii/S1871402120302757>

Goedecke, J., Mtinstlina, S. and Kenne, A. (2017) Type 2 diabetes Mellitus in African Women
https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=african+women+and+type+two+diabetes&btnG=#d=gs_gabs&u=%23p%3DN3mOgkJSNIEJ

Manzella, D., 2019. *Understanding Metformin For Diabetes*. Verywellhealth.com.
Available at: <https://www.verywellhealth.com/biguanides-diabetes-medications-1087355>

Mondal, S., Kundu, B, and Saha, S. (2018) Yoga as a therapeutic intervention for the management of type 2 diabetes mellitus, International Journal of yoga Issue 11, Vol 2

nhs.uk. 2020. *Diabetes*. Available at: <https://www.nhs.uk/conditions/diabetes/>

Pourhasen, M., Shafi, H. and Zahra, B. (2015) **Histological changes of kidney in diabetic nephropathy** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4650785/>

Raveedran, A., Deshpandee, A, and Joshi, R. (2015) Therapeutic Role of Yoga in Type Two Diabetes <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6145966/>

Sherwani, S., Ekhzaimy, M. and Masood, A. (2016) Significance of HbA1C Test in Diagnosis and Prognosis of Diabetic Patients <https://www.ncbi.nlm.nih.gov/books/NBK532915/>

Venkat, P. and Chen, J. (2020) Exosomes derived from bone marrow mesenchymal stem cells harvested from type two diabetes rats promotes neurorestorative effects after stroke in type two diabetes rats. Experimental Neurology- Issue 1 Vol.334
<https://www.sciencedirect.com/science/article/abs/pii/S0014488620302879>

APPENDIX

Health Assessment Questionnaire

Name Blessing Ekpe Date of Birth 21/07/1970

Do you smoke? Yes ☐ No ☒

If Yes, do you –

smoke less than 1 cigarette/day ☐ 1-9 cigarettes/day ☐ 10-19 cigarettes/day ☐ 20-39 cigarettes/day ☐ more than 40 cigarettes/day ☐ smoke a pipe ☐ smoke cigars ☐

If No, have you –

never ever smoked ☒ given up smoking in the last year ☐ not smoked for more than 1 year ☐

Do you have high blood pressure? Yes ☒ No ☐

Have you ever had a heart attack or suffered from angina? Yes ☐ No ☒

Have you ever had a stroke, “shock” or any weakness down one side? Yes ☐ No ☒

Have any of the following – mother, father, brothers or sisters had –

a heart attack below the age of 60 Yes ☐ No ☒ a heart attack above the age of 60 Yes ☒ No ☐ a stroke Yes ☐ No ☒ trouble with very high cholesterol Yes ☒ No ☐ (hyperlipidaemia)

.....

Practice Use Only – NOT APPLICABLE

Health Education Smoking

BP 90..... / ...60..

Height 59..... Weight 99k.....

EXERCISE Healthy exercise usually involves activity that lasts for at least 20 minutes, raises your pulse and produces hard breathing. In younger people this might be running, cycling or sport, or brisk walking for older people.

Do you take this type of exercise –

daily ☐ 3 times weekly ☐ once weekly ☐ once monthly ☐ seldom ☒

I cannot take exercise because of disability ☐

DIET Please tick the one category which is closest to your usual eating pattern.

I eat no meat, fish or dairy produce ☐ I eat no meat ☐ I eat a mixture including daily fruit and vegetables ☐ I eat a mixture including regular chips and fries ☒ I eat frozen meals (eg TV dinners) 3 or 4 times/week ☒ I eat mainly snacks ☒ I eat a special medical diet ☐

Please specify – poultry, red meats, fish, starch foods such as white rice and potatoes, packet, and frozen meals such as curry's, lasagne and pasta bakes, chips and cod mainly for the children

ALCOHOL Please tick the statement which most closely describes your usual average alcohol intake. (1 unit is 1 glass wine, ½ pint beer or a single measure of spirit.)

I never drink alcohol ☐ I drink less than 1 unit per day ☐ I drink between 1 and 2 units a day ☒ I drink between 3 and 6 units a day ☐ I drink between 7 and 9 units a day ☐ I drink more than 9 units a day on average ☐

Practice Use Only – NOT APPLICABLE