

SUMMARY: MODULE 3 CARDIOVASCULAR DISEASE – KNOW YOUR RISKS

Content

- 3.1 Cardiovascular disease (CVD)
- 3.2 Risk factors for cardiovascular disease (CVD)
- 3.3 Coronary heart disease
- 3.4 Detection of cardiovascular disease (CVD)
- 3.5 Prevention of cardiovascular disease (CVD)

Duration 2 1/2 hours

Objective

By the end of this session participants will be able to:

- define the cardiovascular disease (CVD)
- list the types of cardiovascular disease (CVD)
- describe the process of atherosclerosis
- define what the difference is between a heart attack and angina
- define heart failure/ hypertension/ rheumatic heart disease
- list risk factors for cardiovascular disease (CVD)
- describe the risk factors for cardiovascular (CVD) in Aboriginal people
- describe ways to detect cardiovascular disease (CVD)
- describe primary prevention strategies for cardiovascular disease (CVD)

Handouts

14–20

Overheads

16–37



module 3

MODULE 3 PLAN AT A GLANCE

3.1 Cardiovascular disease (CVD)

Sub topic	Explanation	Overhead	Handout
What is cardiovascular disease (CVD)	Cardiovascular disease (CVD) is used to describe a number of conditions that affect the heart and blood vessels	16	14
	Overview types of cardiovascular disease (CVD)	17, 18 & 19	15
Causes of cardiovascular disease (CVD)	Explain what atherosclerosis does Explain that certain factors cause atherosclerosis		

3.2 Risks factors for cardiovascular disease (CVD)

Activity	Small groups to identify possible risk factors		16
Non-modifiable and modifiable risks	After group feedback, present list of known risks		
	Discuss details of risk factors using handout 17	20	17
Cardiovascular risk in Aboriginal people	Ask participants: which risk factors they consider most significant for Aboriginal people		
	Discuss available data		

3.3 Coronary heart disease

Coronary heart disease	Explain what coronary heart disease is. Refer participants to handout 18 for following presentations.	21	18
Heart attack	What happens, signs and symptoms	22, 23 & 24	
Angina	What happens, signs and symptoms	25 & 26	
Heart failure	What happens, signs and symptoms	27 & 28	
Rheumatic fever	What happens, signs and symptoms	29	
Blood pressure (BP)	What happens, signs and symptoms	30 & 31	
Stroke	What happens, signs and symptoms	32 & 33	
Peripheral vascular disease	What happens, signs and symptoms	34	

3.4 Detection of cardiovascular disease

How to detect cardiovascular disease (CVD)	Doing a risk factor assessment	35 & 36	
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3.5 Prevention of CVD

Strategies for preventing cardiovascular disease (CVD)	Explain the many ways of preventing cardiovascular disease (CVD)	37	19
Activity	Role play – take turns in pairs to role play		20
	Vignettes involving a client and an Aboriginal Health Worker (AHW)		
Summary	Repeat the continuum exercise from the Introductory module, noting new knowledge		
	Action plan (optional) – see Notes for Educators		
	Answer any further questions participants may have and outlined		

TEACHING NOTES: MODULE 3

CARDIOVASCULAR DISEASE – KNOW YOUR RISKS

Cardiovascular disease

Aim

To provide an overview of cardiovascular disease

Duration 20 minutes



module 3

Presentation – What is cardiovascular disease (CVD)?



Overhead 16 – What is cardiovascular disease (CVD)?

Present overhead 16 and explain that cardiovascular disease (CVD) is a term used to describe a number of conditions that affect the heart and blood vessels.

Types of cardiovascular disease include:

- coronary heart disease – heart attack, unstable angina, angina
- stroke – cerebrovascular disease
- peripheral vascular disease
- rheumatic heart disease
- high blood pressure.

Distribute handout 14.



Handout 14 – Types of cardiovascular disease

Presentation – Causes of cardiovascular disease



Overhead 17 – Main cause of cardiovascular disease is atherosclerosis

Present overhead 17 and explain that the most common cause of most cardiovascular disease (CVD) is a blood vessel clogging process known as atherosclerosis. Explain that:

- atherosclerosis is the gradual clogging of the arteries that supply blood to the heart, brain, kidneys and other vital organs
- deposits of fat, cholesterol and other substances (plaques) build up on the inner walls of the arteries.

Training tip



Trainers may decide to ask participants for their ideas on the following questions about atherosclerosis before presenting the overheads.

What does atherosclerosis do?



*Overhead 18 – What does atherosclerosis do?
Overhead 19 – Diagram showing atherosclerosis*

Present overheads 18 and 19. Add the following detail to explain the slides:

- atherosclerosis narrows the inside of the arteries, making less room for the blood to flow through
- there is less oxygenated blood flow (arterial) to the cells (some people refer to this as ischaemia)
- atherosclerosis will eventually cause the arteries to become harder and less elastic – this is known as a hardening of the arteries
- any artery can be effected.

What causes atherosclerosis?

The process often begins during childhood and adolescence. Certain conditions and behaviours tend to speed up the development of atherosclerosis including:

- a diet high in saturated fat can increase blood cholesterol and start the build-up of fatty materials in the arteries
- being overweight
- smoking – affects the blood vessels, can make the blood ‘stickier’ and the blood flow slows and makes blockages more likely; speeds up the rate at which atherosclerosis occurs
- diabetes, especially if uncontrolled
- insufficient physical activity
- high blood pressure – speeds up the process of atherosclerosis as the result of the uncontrolled pressure overload on the heart and blood vessels
- a family history
- depression
- low fibre diet.

Important message



Having three or more of the above risk factors greatly increases the risk of having a heart attack.

Distribute handout 15, a summary of the preceding discussion.



Handout 15 – What is cardiovascular disease?

3.2 Risk factors for cardiovascular disease

Aim

To identify and explain the risk factors for cardiovascular disease (CVD).

Duration 40 minutes

Activity – Risk factors for cardiovascular disease (CVD)



Explain that there are many risk factors for the development of cardiovascular disease (CVD). Explain that these risk factors are similar for all cardiovascular disease (CVD). There are some that we can change or modify and there are others that we cannot change or modify.

Group activity



Handout 16 – Risk factors for cardiovascular disease

Distribute handout 16 and ask participants to work in small groups to come up with a list of possible risk factors for cardiovascular disease (CVD). Ask each group to think about which of these they have any control over.

Presentation – Non-modifiable and modifiable risk factors

Present overhead 20 and explain the concept of non-modifiable and modifiable risks.



Overhead 20 – Risk factors for cardiovascular disease (CVD)

Non-modifiable risk factors are those that are out of your control such as:

- family history of cardiovascular disease (CVD)
- age – risk increases with age
- sex – men are at greater risk until women reach menopause and then the risk becomes the same.

Modifiable risk factors are those that can be managed or changed and may be behavioural factors such as:

- tobacco smoking
- insufficient physical activity
- alcohol misuse
- poor nutrition (high intake of saturated fats and salt).

Or they may be biomedical factors such as:

- high blood cholesterol
- high blood pressure
- excess body weight – overweight.





Handout 17 – Atherosclerosis risk factors

Distribute handout 17 and provide the following detail to explain each risk factor as listed on the handout.

High cholesterol

- There is no national data on blood cholesterol levels among Aboriginal and Torres Strait Islander people.
- Cholesterol is a white waxy fatty substance. It is made in the liver and released into the blood stream. Cholesterol is used for many things such as:
 - making hormones
 - making vitamin D (which is used to make our bones and teeth strong).

Cholesterol can be both good and bad, so it is important to learn what cholesterol is, what it does to your health and how people can manage their blood cholesterol levels.

There are different types of cholesterol.

- ‘Good cholesterol’ is called high-density lipoprotein (HDL). It protects you against heart disease. The more you have of this the better. High-density lipoprotein mops up the bad cholesterol.
- ‘Bad cholesterol’ is called low-density lipoprotein (LDL). It leads to fatty stuff building up in artery walls, which can lead to heart disease, heart attacks, chest pains, strokes, kidney and circulation problems.

Important message



Some participants may be interested in information on how to lower cholesterol:

- *keep a healthy weight*
- *cut down on animal fats such as butter, cream, cheese and fried foods*
- *eat less saturated fats (coconut and palm oil, fatty meats, most fried take-away foods)*
- *eat more fibre (fruit, vegetables, cereal, baked beans)*
- *be active*
- *be a non-smoker*
- *take tablets as advised*
- *exercise regularly*
- *keep control of diabetes*
- *importantly, have cholesterol measured once a year.*



Excess body weight / obesity and poor nutrition

Obesity is when a person has too much body fat and is very overweight.

Many Australians are overweight or obese. While the proportion of overweight people is similar for Aboriginal and Torres Strait Islander people and the general Australian population, Aboriginal and Torres Strait Islander people are more likely to be obese.

People who are obese are at risk of serious health problems including:

- heart disease
- bone disease
- high blood pressure
- stroke
- cancer
- diabetes
- high cholesterol.

While people come in many shapes and sizes, those who have a 'pot belly' even if their arms and legs are skinny are at a greater risk of health problems. The measurement of the waist shows how much extra fat is being carried around your belly. Waist measurements should be less than:

- 94 cm for men
- 80 cm for women

Important message



If appropriate to the group, the following information on nutrition can be provided.

- It is important we get a healthy balanced diet so our bodies and minds can work properly.
- Poor nutrition can lead to a lot of health problems such as heart disease and diabetes.
- Breast-feeding is best because it helps babies be strong, healthy and build immunity (fight off infections).
- Children need to eat the right foods so they can concentrate at school and grow strong and healthy.
- Babies born underweight can have health problems later in life-like kidney disease.
- Pregnant mums need to eat healthy foods to give babies the best chance in life.
- Eat healthy, grow strong, live long!

Eating tips:

- include variety in your food
- have low fat food
- eat at least 5 vegetables a day
- eat more light meals a day
- eat smaller portions of food

- do not skip breakfast
- eat enough food from the each of the 5 food groups (see food plate diagram following)
- choose different varieties of things from the food groups
- eat plenty of plant foods (bread, cereal, rice, pasta, noodles, vegetables, and fruit)
- eat moderate amounts of animal foods (milk, yoghurt, cheese, meat, fish, chicken, eggs)
- eat small amounts of fats
- drink plenty of water.

Picture of a healthy food plate



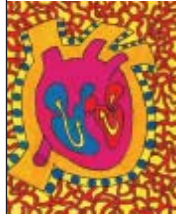
National Heart Foundation of Australia Tick Program

The Tick Program is a public health nutrition program. It is part of the National Heart Foundation’s long-term strategy to improve the eating patterns of all Australians. The ‘tick’ appears on foods that have been approved by the National Heart Foundation. The ‘tick’ is a guide to help people make healthy food choices quickly and easily.

Foods, including cuts of meat and dairy products displaying the ‘tick’ logo should be selected over other choices. These foods are relatively low in saturated fat and salt and high in fibre compared to other products. Choosing foods with the National Heart Foundation ‘tick’ is one step we can take to ensure both ourselves and our families have a more healthy diet and improved nutrition.

Tobacco smoking

Rates of smoking among Aboriginal people are approximately double that of the general population. Smoking prevalence amongst Aboriginal and Torres Strait Islander Health Workers is also higher than the general population. Research suggests that there are many reasons for this high rate of smoking including the effects of colonisation and dispossession such as loss of culture, land and language and the resulting inequality.



Smoking is one of the biggest killers of Aboriginal people however, it is preventable. It damages health and causes:

- heart disease
- stroke
- high blood pressure
- cancer (especially lung, throat, bladder and lip)
- chest infections
- breathlessness and unfit
- yellow teeth and fingers
- affects on children – small babies, ear infections, asthma
- difficulty in having an erection.

Important additional information

Tips on how to stop smoking may be of interest to participants:

- pick a date to stop and don't try to give up before stressful events such as a job interview, court appearance etc
- get your family to support you and plan for upcoming events like a party. Others will be smoking there and it will be hard not to smoke
- have someone to talk to when you feel like giving up
- call the QUIT line for support or information. Call 131 848 (for the cost of a local call)
- use nicotine replacement therapy (NRT) available from a pharmacy without a prescription. NRTs include patches, gum, lozenges, sublingual tablets or inhalers.

Important Information



Nicotine replacement therapy (NRT)

- *Using nicotine replacement therapy (NRT) properly doubles the chances of successful quitting.*
- *Nicotine replacement therapy (NRT) works by reducing the body's addiction to the nicotine in cigarettes.*
- *Nicotine replacement therapy (NRT) reduces symptoms of withdrawal such as cravings, sleeplessness, poor concentration and anxiety.*
- *Talk to your Doctor about using Zyban tablets – they may be cheaper than other nicotine replacement therapies (NRT) and require a prescription.*

If you have recently had a heart attack, are pregnant, or you are breastfeeding, talk to your doctor before using any type of nicotine replacement therapy

Benefits of quitting smoking include:

The benefits of quitting smoking include:

- better health and more energy
- save money
- live longer
- food tastes better.

Physical inactivity

Aboriginal and Torres Strait Islander adults are more likely than other Australian adults to report no physical activity in their leisure time. Physical activity simply means exercise such as:

- walking
- gardening
- playing sports
- walking up stairs
- water aerobics
- golf
- dancing
- swimming.

Regular physical activity reduces the risk of:

- diabetes
- high blood pressure
- heart disease
- depression and anxiety
- becoming overweight.

Regular physical activity:

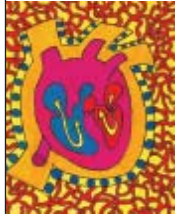
- helps build and maintain healthy bones, muscles, and joints
- improves circulation
- helps the body to fight off diseases
- improves overall fitness and health
- makes you feel good and keeps your weight down.

Important message



Advice on getting started on exercise:

- *get a check from your health worker before you start*
- *take a walk around the block with your family, friends or dog*
- *do some gardening*
- *do some activities with your children – play ball, swim, go cycling*
- *walk up stairs instead of getting the lifts*
- *wear comfortable shoes and loose clothes*
- *drink water when exercising*
- *do not exercise up to 1 1/2 hours after a meal or in the heat of the day.*



People who have diabetes

People with diabetes are at greater risk of atherosclerosis – diabetes is considered a contributing factor to atherosclerosis and therefore is a major risk factor for coronary heart disease (heart attack and angina). Diabetes accelerates the process of atherosclerosis through digesting our food in a wrong way. Fats are stored in parts of our body like the arteries.

Aboriginal people have diabetes at a greater level than non-Aboriginal people.

High blood pressure

Blood is carried around the body in tubes called blood vessels. Blood pressure (BP) is the measurement of the pressure of the blood against the walls of the bigger blood vessels called the arteries. High blood pressure is known as hypertension. It can be very dangerous if left untreated. Normal blood pressure is less than 120/80. You need more than one high reading to be sure you have high blood pressure.

People who suffer from depression

Depression and social isolation are also common problems associated with heart disease and are risk factors for heart disease.

Other co-morbidities

People with coronary heart disease often have or are at risk of other vascular conditions (such as stroke or peripheral vascular disease or diabetes) as they share many of the same risk factors.

Presentation – Cardiovascular risk in Aboriginal people

Ask participants to consider which risk factors they think are the most significant for Aboriginal people. Discuss the following risk factors for Aboriginal people.

High blood cholesterol

There is no national data on blood cholesterol levels amongst Aboriginal and Torres Strait Islander people and how they compare to the general Australian population.

Tobacco Smoking

Rates of smoking among Aboriginal people are approximately double that of the general population.

Physical activity

Aboriginal and Torres Strait Islander adults are more likely than other Australian adults to report no physical activity in their leisure time.

Poor nutrition

Maternal under-nutrition is one factor linked to low birth weight, which is about twice as common among babies born to Indigenous mothers as it is among babies born to non-Indigenous mothers.

Overweight / Obesity

The proportion of people who are overweight is similar for Aboriginal and Torres Strait Islander people and all Australians. However, obesity is more common among Aboriginal and Torres Strait Islander people than all Australians.

Excessive alcohol consumption

The proportion of Aboriginal and Torres Strait Islander people who consume any alcohol at all is lower compared to non-Indigenous people. However, Aboriginal and Torres Strait Islander people who do drink are more likely to consume harmful quantities of alcohol than the general population.

3.3 Coronary heart disease

Aim

To outline the cause, symptoms and effect of coronary heart disease.

Duration 30 minutes

Presentation – Coronary heart disease



Overhead 21 – Coronary heart disease

Present overhead 21 and explain that:

- coronary heart disease is caused by atherosclerosis
- coronary heart disease is also known as ischaemic heart disease (IHD)
- there are 3 forms of ischaemic heart disease (IHD). These are all known as **acute coronary syndrome**:
 - heart attack (myocardial infarction or MI)
 - unstable angina
 - angina
- coronary heart disease develops when there is an inadequate oxygenated blood supply (ischaemia) to the heart muscle
- the inadequate blood supply is caused by blockages in the coronary arteries that supply blood to the heart muscle

Distribute handout 18 and refer participants to the notes on this handout during the following presentations.



Handout 18 – Types of cardiovascular disease (CVD)



Presentation - Heart attack



Overhead 22 – Heart attack

A heart attack:

- is also known as Acute Myocardial Infarction (AMI) or coronary occlusion
- occurs when blood supply to part of the heart muscle is totally blocked.

What happens?

- Sudden rupture of the plaque (from atherosclerosis) which forms a thrombosis (blood clot) in a coronary artery.
- This can lead to a complete blockage of blood supply to that part of the heart.
- That part of the heart muscle can die if blood flow is not restored quickly.



Overhead 23 – Heart attack diagram

Present overhead 23 and discuss the following effects of a heart attack:

- permanent damage to that part of the heart muscle results
- if the damage is very large the heart may stop pumping
- the complete stoppage of the heart is known as cardiac arrest and death may follow if not reversed.

Important message



A heart attack is sudden but usually results from the process of atherosclerosis, which occurs gradually.

Signs and symptoms of heart attack

Present overhead 24 and explain the following common signs and symptoms of a heart attack:



Overhead 24 – Signs and symptoms of a heart attack

- most common is severe chest pain
- it can also be a discomfort in the jaw, chest, neck, arms or back
- collapse or lose consciousness
- indigestion or feeling sick in the stomach
- symptoms not relieved by rest or chest pain drugs
- sweating, sick feeling in stomach, shortness of breath and anxiety
- some patients may not experience pain or discomfort in their chest but have the other signs and symptoms
- some patients experience a 'sense of doom'.

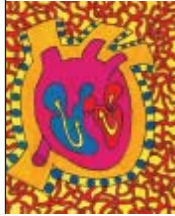
Important message



Emergency management – What should I do if I think I am having a heart attack?

- *If discomfort does not settle down within 15 minutes or 10–15 minutes with medication and rest it is crucial that patients seek help as soon as possible as this may indicate the start of a heart attack. If in an area where an ambulance is not immediately available quickly notify the nearest health service for advice.*
- *Dial 000.*
- *Ask for the ambulance service.*
- *Say you think you are having a heart attack.*
- *Do not drive yourself.*

**Too many Kooris die each year because they did not recognise the warning signs.
IF YOU ARE NOT SURE, no shame, get help.**



Presentation – Angina



Overhead 25 – Angina

Present overhead 25 and explain that angina is chest pain or discomfort resulting from an inadequate oxygenated blood supply to the heart muscle.

What happens?

- Chest pain or discomfort occurs when a diseased coronary artery cannot meet a temporary demand to increase blood flow (and oxygen) to the area of the heart that the artery supplies.
- Usually occurs when the heart has to work harder than usual, when the need for blood and oxygen is increased (ie physical activity, response to emotion).
- Pain or discomfort usually goes away after a few minutes rest or with taking medication (such as anginine tablets).
- The heart muscle is not permanently damaged.

Signs and symptoms of angina



Overhead 26 – Signs and symptoms of angina

Present overhead 26 and explain that angina can affect different people in different ways and individuals can experience different symptoms at different times. People have described their symptoms of angina as:

- a tightness or squeezing pressure in the middle of the chest which can be mild or severe
- this can also spread to the jaw and arms particularly the left arm, and can be felt only there and not in the chest
- may just be an unpleasant sensation or discomfort in the chest.

Unstable angina

Unstable angina is:

- chest pain or discomfort resulting from an inadequate oxygenated blood supply to the heart muscle
- unstable angina differs from angina in that the features or pattern of the chest pain or discomfort changes
- it is not as responsive to the usual medication and the person is at a much greater risk of heart attack.

The underlying process is the same as for angina except that:

- the pain may occur at rest
- it may become more severe
- the pain may occur more often (not being controlled by medications)
- it does not respond as well to the quick relief eg anginine or nitro-lingual spray medications.

Important message



Angina is a warning sign that the heart muscle is at risk.

Angina is associated with a higher risk of heart attack.

If discomfort does not settle down within 10 to 15 minutes with rest and/or medication it is crucial that patients seek help as soon as possible as this may indicate the start of a heart attack.

Presentation – Heart failure



Overhead 27 – Heart failure

Explain overhead 27, saying that heart failure is when the heart muscle is weakened and cannot pump as well as it should. When the heart can't pump efficiently, a number of things happen. The heart is affected as well as skeletal muscle, renal function and the nervous system and hormonal responses.

Causes of heart failure

Heart failure is caused by conditions that damage or overwork the heart muscle including:

- previous heart attack
- long standing uncontrolled high blood pressure
- faulty heart valve
- cardiomyopathy (weakened heart muscle)
- sometimes the cause cannot be determined
- diabetes
- excessive use of alcohol.



Symptoms



Overhead 28 – Symptoms of heart failure

Discuss the symptoms of heart failure, such as:

- tired and unable to carry out normal daily activities
- light-headedness, dizzy or weak
- heart pounding or notice a fast or irregular rhythm
- fluid may build up (called oedema) in:
 - the lungs making you short of breath, even at rest or when lying flat at night
 - the legs causing swelling
 - the abdomen causing loss of appetite or bloating (the abdomen may also feel tender or painful and the person may have some nausea or a feeling of wanting to vomit).

Gaining weight can be a serious sign – people should seek medical advice if more than 1.5–2.0 kgs of sudden weight (fluid) is put on in two days.

Circulation slows down. The muscles don't get all the oxygen they need, which is why people feel more tired. Sometimes blood flow to the brain is reduced, which is why people may feel dizzy or faint.

Blood backs up in the veins, and fluid seeps from the veins into the surrounding tissues. That causes swelling (oedema). This is most common in the legs and ankles, but may affect other parts of the body as well.

Blood also backs up in the blood vessels within the lungs. The inside of the lungs become swollen and stiff with the extra fluid, which is why the person may feel short of breath and may have a cough.

In the daytime, this extra fluid in the blood can add to the swelling in legs and ankles.

When lying down, the fluid may flow to other parts of the body. Some of it gets into the tissue around the lungs, making it especially hard to breathe at night.

Rheumatic fever



Overhead 29 – Rheumatic fever

Present overhead 29 and explain that:

- Rheumatic fever is caused by Group A Streptococcus bacteria associated with infections of the throat and skin
- it may affect the heart valves, the heart muscle and its lining, the joints and the brain if the infections are not treated
- recurrence of rheumatic fever can lead to cumulative heart damage
- recurrence of rheumatic fever can be almost completely prevented by monthly injections of penicillin and follow-up

Rheumatic heart disease

Rheumatic heart disease is due to the damage to the heart muscle and heart valves by an attack of acute rheumatic fever.

This is a disease associated with poverty and overcrowding, lack of education and limited access to medical care to obtain adequate diagnosis and treatment.

Presentation – Blood pressure (hypertension)



Overhead 30 – Blood pressure

Present overhead 30 and explain that blood pressure (BP) is the pressure exerted by blood against the walls of the blood vessels as the heart pumps the blood around the body. High blood pressure, that is blood pressure above the acceptable level, is called hypertension.

Provide the following information.

What can cause high blood pressure?

Risk factors for high blood pressure include:

- family history of hypertension
- being overweight
- smoking
- high blood cholesterol
- high fat and salt intake
- high alcohol intake
- too little physical activity
- age.

Important message



If lifestyle changes do not reduce blood pressure (BP), or if blood pressure is extremely high, medications will be prescribed. These medications will lower the blood pressure and in most cases will need to be taken life long.

It is important to take blood pressure medications regularly.

What's so bad about high blood pressure?



Overhead 31 – What's so bad about high blood pressure

If blood pressure is left uncontrolled and remains high, it can damage internal organs and cause serious problems like kidney disease, heart attack or strokes.

Risks associated with high blood pressure include:

- stroke
- coronary heart disease
- heart failure
- renal disease
- retinopathy
- dementia.

Presentation – Stroke (Brain attack)



Overhead 32 – Stroke

Present overhead 32. Explain that a stroke occurs when:

- there is an interruption of the blood supply to the brain
- when an artery supplying blood to a part of the brain becomes blocked or bursts.

What happens?

Most strokes are due to a restriction of blood flow to the brain leading to 'brain attack' ie similar to what happens with 'heart attacks'.

A lesser percentage of strokes are due to bleeding (haemorrhage) into the brain which can be related to high blood pressure.

As a result part of the brain is damaged because it is deprived of its blood supply that normally carries oxygen and other nutrients to the brain and which enables it to function.

A transient ischaemic attack (TIA) of the brain has the same cause and symptoms as a brain attack/ischaemic stroke but the symptoms completely resolve within a few minutes or a few hours. Just as an unstable angina is a warning sign for a possible heart attack in the future, a TIA is also an important warning sign for a stroke.

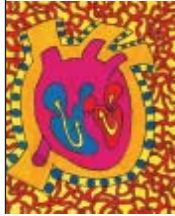
After a stroke

A stroke can be fatal, disabling or you can make a full recovery.

The effects of stroke vary depending on where the brain is damaged.

A 'full' stroke may be preceded by mini strokes (TIA) which cause only short-lasting problems.

It is very important that these mini strokes (TIA) are investigated because not only can tablets like aspirin prevent blood clots in those at risk, but surgery may be appropriate to overcome obstruction in blood vessels in the neck.



Causes of stroke



Overhead 33 – Risk factors for stroke

People at the greatest risk for having a stroke are those who:

- smoke
- have high blood pressure
- have heart disease
- have high blood cholesterol
- are elderly
- drink heavily
- have already had a stroke or transient ischaemic attack.

Signs and symptoms of stroke include:

- unexplained weakness or numbness on one side of the body
- difficulty speaking
- unexplained dizziness
- blurred or sudden poor vision
- confusion
- loss of balance.

Presentation – Peripheral vascular disease



Overhead 34 – Peripheral vascular disease

Peripheral vascular disease (PVD) is also the result of the atherosclerosis process and results in a reduced arterial blood flow most commonly observed in the legs.

What happens?

- An inadequate blood supply (ischaemia) travels to the legs.
- This results in the narrowing of or blockages in the arteries that supply blood to the leg muscles.

Causes of peripheral vascular disease

The underlying problem is atherosclerosis.

People who are at greatest risk for peripheral vascular disease are those who:

- smoke
- have high blood pressure
- have high cholesterol levels
- have diabetes.

Signs and symptoms of peripheral vascular disease

- No symptoms.
- Calf/leg pain on walking.
- Calf/leg pain at rest.
- Limb-threatening reduced blood supply leading to amputation.



3.4 Detection of cardiovascular disease

Aim

To detail detection methods for cardiovascular disease

Duration 30 minutes

Presentation – How to detect cardiovascular disease (CVD)



Overhead 35 – Detection of cardiovascular disease

Present overhead 35 and state that early detection of cardiovascular disease (CVD) is possible by completing a risk factor assessment for the following:

- blood pressure (BP)
- cholesterol
- body mass index (BMI) calculated using a person's height and weight
- family history
- diabetes
- physical activity
- smoking.



Overhead 36 – Diagrams of medical tests

Further explain that heart disease can be detected in a number of ways:

- electrocardiograph – 12 lead ECG
- blood tests – cardiac enzymes or troponins
- nuclear scanning – gated heart scan
- echocardiogram
- coronary angiogram/cardiac catheterisation
- exercise/stress testing.

Cardiac catheterisation or angiogram

An angiogram is an examination of blood vessels using x-rays. A doctor who is specially trained performs this procedure in a special department called the Cath Lab (Cardiac catheter laboratory).

The doctor will insert a small tube (catheter) into the blood vessel usually in the groin, passing it up to the heart blood vessels and then he/she will inject x-ray dye (contrast) that makes the vessels visible when the x-ray pictures are being taken. This will then allow the doctor to determine how well the blood moves through the heart's arteries and to see how much and where the blockages are. There will be a DVD or video made of the angiogram.

Diagnosing heart attack

Tests can be undertaken to assess the damage to the heart and risk of another heart attack.

These may include:

- taking the story/history of pain or discomfort
- blood tests – blood tests will show up special enzymes (cardiac enzyme – troponin), which get into the blood stream if the heart muscle is damaged
- ECG (electrocardiogram) – traces the electrical pattern of a heartbeat and can indicate areas of damage
- stress test – exercise test on treadmill or stationary bike (measures the heart's response to exercise)
- coronary angiogram – X-ray of the heart to look for more blockages in the coronary arteries and to see how well the heart is pumping. Involves putting the patient under a local anaesthetic and inserting a long thin tube (catheter) into an artery in the groin or inside of the elbow. The tube is moved up the inside of the artery until it reaches the heart where a special dye is injected into the coronary arteries and x-ray pictures are taken. This gives detailed information about the state of the heart and coronary arteries.

Diagnosing heart failure

Certain tests will be conducted to assess the extent of a person's heart failure including:

- blood tests – test for the levels of kidney function, how much oxygen is in the blood
- electrocardiogram(ECG) – a test that picks up the electrical activity of the heart
- X-ray can be used to show the size of the heart. An enlarged heart is a sign of heart failure
- X-ray test in the Nuclear Medicine Department. A small amount of radioactive dye is injected into a vein and pictures are taken as the dye fills the heart's chambers. This tells how much blood the heart can pump with each beat
- echocardiogram – uses sound waves to safely show how the heart is working.



3.5 Prevention of cardiovascular disease

Aim

To discuss methods of preventing cardiovascular disease

Duration 30 minutes

Presentation – Strategies for preventing cardiovascular disease



Overhead 37 – Prevention of cardiovascular disease (CVD)

Discuss the strategies for prevention of cardiovascular disease (CVD) as listed on overhead 37:

- do not smoke/quit smoking/do not breathe in other peoples smoke (known as passive smoking)
- reduce blood fats such as cholesterol by eating a diet low in saturated fat
- control you blood pressure
- high blood pressure can be lowered by measures such as increasing physical activity, weight loss, and restricting salt and alcohol intake
- blood pressure tablets are frequently necessary. Often a combination of more than one medication is used to lower blood pressure to safe levels
- maintain a healthy weight
- eat plenty of cereals, fruit, fish and vegetables
- eat less salt (don't add salt when cooking or to take away foods)
- increase physical activity – walking is great for you
- decrease alcohol intake (no more than 2 standard drinks a day for men and no more than 1 standard drink per day for women) with at least two free alcohol days per week
- visit your General Practitioner (GP) and Aboriginal Health Worker (AHW)) for regular check ups
- management of diabetes – it is important to keep blood glucose levels(BGL) in normal limits and to get regular checks from your General Practitioner (GP) or Aboriginal Health Worker (AHW)
- management of depression – your GP or Aboriginal Health Worker (AHW) can help
- identify and manage stress.

Distribute handout 19.



Handout 19 – Prevention of cardiovascular disease

Activity – Role playing

Distribute handout 20 and ask participants to work with a partner to take turns at:



Handout 20 – Role playing

- acting as a client asking a health worker about a certain question or condition
- being in your health worker role and responding to the client's question or concern to role play the vignettes listed on the handout.

Summary

Activity – Repeat the continuum exercise

Indicate a line along the floor extending from 'minimum knowledge' to 'a lot of knowledge'. Ask participants to stand along the line to indicate their new knowledge level on cardiovascular disease (CVD). Participants should be further along the continuum than at the beginning of the workshop.



Activity – Action plan (optional)



See **Suggestions for presenters using the manual** for further information on the use of an action plan.

- Redraw the overlapping circles on the whiteboard indicating individual, family and community, and health worker roles that each participant has.
- Ask people to think about and write down the actions they will take and the things they can do differently as a result of their new knowledge.
- After 5 minutes, begin a group discussion. Invite people to offer their proposed actions and list on the whiteboard under separate lists for individual, community and work role. Encourage discussion about the benefits of each action, the possible barriers to success, who else will need to be involved, who should have responsibility, what some of the unintended outcomes may be etc.
- Allow 20 minutes for this exercise.

Then:

- Ask if there are any comments/questions on this module, then recheck questions list you compiled at the beginning of the workshop.
- Cross off questions that have been answered, at the same time going over the explanations.
- Explain that remaining questions will be answered during the next sessions.
- Briefly mention what will be covered in the next session – Module 4:
 - healthy lifestyles
 - medical treatment
 - surgical procedures
 - medications.

Module 3 Useful resources

Australian Bureau of Statistics

The most recent statistics on the health of Aboriginal people can be found on the Australian Bureau of Statistics website www.abs.gov.au/ In the search bar, enter 'Aboriginal and Torres Strait Islander' to be directed to specific information.

Australian Institute of Health and Welfare

- The Australian Institute of Health and Welfare(AIHW) is the national source for health and welfare statistics. The AIHW regularly produces publications, and compiles statistical information that is available for downloading or in hardcopy. Website www.aihw.gov.au
- *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander People* (Fourth edition) provides an overview of the health and welfare of Australia's Indigenous population. Draws on Australian Bureau of Statistics surveys and censuses and the range of data held by the AIHW. Topics include health status and death and sickness. Authored by AIHW & ABS. Published 2003; ISSN 1441-2004; AIHW Cat. No. IHW-11; ABS Cat. No. 4704.0

Cardiovascular Disease

Heart, Stroke and Vascular Diseases: Australian Facts 2004

Comprehensive information covering patterns of cardiovascular health and illness among Australians, their associated risk factors, treatment and management of the disease are available in this publication. Produced jointly by the AIHW, National Heart Foundation of Australia, National Stroke Foundation of Australia and the Australian Diabetes Association. The most recent publication (2004) is available from the AIHW website and may be viewed online for free at www.aihw.gov.au/publications/index.cfm/title/10005.

National Heart Foundation

The Heart Foundation produces a broad range of resources that are available for both members of the public and, for professionals, independent evidence-based cardiovascular health information.

The range of patient education materials include:

- *Living with angina*
- *Lets talk about heart failure*
- *Heart attack? Every minute counts*
- *Life after heart attack*
- *Stroke, How to lower your risk*
- *Cholesterol, triglycerides and heart disease*
- *It only takes a tick*
- *Enjoy healthy eating: A guide to keeping your cholesterol in check*
- *Get the good eating habit*
- *Physical activity*
- *Be active every day*
- *Healthy weight*
- *Healthy eating and activity guide*



Some facts sheets and publications and information are available for viewing on the website of the organisation at www.heartfoundation.com.au

Resources can be ordered through Heartline on 1300 36 27 87.

NSW Department of Health

- *Aboriginal Vascular Health Program: Health Education Pamphlets* (series of 13 pamphlets) in a simple easy to read format. Topics include:
 - *Heart attack*
 - *Blood pressure*
 - *Heart disease*
 - *Cardiovascular disease*
 - *Cholesterol*
 - *Stroke*
 - *Kidney disease*
 - *Smoking*
 - *Obesity*
 - *Nutrition*
 - *Physical activity*
 - *Stress*
 - *Depression.*

SHPN(AH) 040076 – 040088. (Revised January 2005) SHPN (AH) 040076–040087, NSW Department of Health, Sydney. To obtain hardcopies of the pamphlets please contact the NSW Better Health Centre on ph: (02) 9816 0452. Further information about the program is available on the Aboriginal Chronic Care Program web site www.health.nsw.gov.au/sd/igfs/hp/avhp/

- *Smokecheck: Brief motivational Interviewing for Smoking Cessation: Facilitators Training Manual*
Developed by the Tobacco and Health Branch, NSW Department of Health to build the capacity of health workers to deliver smoking cessation interventions to reduce smoking in Aboriginal communities. Due for Publication in late 2005. Contact the Senior Project Officer (Cessation), Tobacco and Health Branch (02) 9391 9466.
- *Quitline* The Quitline is a confidential telephone based service primarily designed to help people who smoke tobacco and want to quit.
A range of fact sheets are available from Quitline on topics to help quit including:
 - *Cardiovascular disease and smoking*
 - *Health effects of smoking*
 - *Benefits of quitting smoking*
 - *Getting ready to quit smoking*
 - *Quitting smoking – the first few days.*

The Quitline can be contacted for information and support on 131 848.

SUMMARY: MODULE 4 TREATMENT AND MANAGEMENT OF CARDIOVASCULAR DISEASE

Content

- 4.1 Common medications for heart disease (CHD)
- 4.2 Lifestyle management of cardiovascular disease (CVD)
- 4.3 Medical and surgical treatment options for coronary heart disease (CHD)
- 4.4 Management of a heart attack

Duration 2 hours

Objectives

By the end of this session participants will be able to:

- describe medication used for cardiovascular disease (CVD)
- describe lifestyle management strategies for cardiovascular disease (CVD)
- explain medical treatment options for coronary heart disease (CHD)
- explain common surgical procedures for coronary heart disease (CHD)

Handouts

21–24

Overheads

38–46



module 4

MODULE 4 PLAN AT A GLANCE

4.1 Common medications for cardiovascular disease

Sub topic	Explanation	Overhead	Handout
Common medications	Role of medicines	38	21
	Range of drugs used to treat cardiovascular disease (CVD)	39-41	

4.2 Lifestyle management of cardiovascular disease

Benefits of providing better management of cardiovascular disease (CVD)	Discuss ways to improve the quality of life of people with cardiovascular disease(CVD)	42	
	Lifestyle changes needed		

4.3 Medical and surgical treatment options for coronary heart disease (CHD)

Coronary angioplasty	Explain how the following processes are carried out	43	22
Coronary stenting		44	23
Coronary artery bypass grafting		45	24

4.4 Management of heart attack

If a heart stops beating	Emergency and follow-up procedures	46	
Describe the management of heart failure	Explain how heart failure is diagnosed		

TEACHING NOTES: MODULE 4 TREATMENT AND MANAGEMENT OF CARDIOVASCULAR DISEASE

4.1 Common medications for heart disease

Aim

To describe the range of medications for heart disease.

Duration 45 minutes



module 4

Presentation – Common medications



Overhead 38 – Table of medications for heart disease

Present overhead 38 and discuss the following:

- it is important to stress that medications will vary depending on each individual's history of coronary heart disease(CHD) and their risk factors
- medications are an important part of care for heart disease
- it is important to know or keep a record of:
 - the names of medication
 - what they are used for
 - how often and at what times to take them
 - common side effects
- medications can slow the heart rate, make the blood vessels wider, thin the blood, make the blood less sticky or lower the blood pressure (BP) or cholesterol.



Handout 21 – Table of medications for cardiovascular disease



Overheads 39 – 41 – Table of Medications

Distribute handout 21 and discuss drugs used to treat cardiovascular disease(CVD). The overheads can also be used for reference.

Drug / Other names	What it is used for	Side effects
Evidence shows that the first four groups of medications have the most benefit for people with heart disease or at high risk of heart disease		
Anticoagulant- Antiplatelet		
<ul style="list-style-type: none"> ■ Aspirin ■ Cardiprin ■ Warfarin ■ Cartia ■ Coumadin 	<p>Helps with angina symptoms</p> <p>Thins the blood and reduces blood clots from forming</p>	<p>Stomach upsets</p> <p>Bleeding</p> <p>Indigestion</p>
Beta Blocker		
<ul style="list-style-type: none"> ■ Metoprolol ■ Betaloc ■ Atenolol ■ Carvedilol ■ Sotalol ■ Propanolol 	<p>Helps the heart pump stronger and reduces the work the heart has to do</p>	<p>Dizziness</p> <p>Tiredness</p> <p>Wheezing</p> <p>Breathlessness at night</p> <p>Numbing of fingers, toes</p> <p>Dreams and nightmares</p> <p>Loss of libido</p>
ACE Inhibitor		
<ul style="list-style-type: none"> ■ Captopril ■ Enalapril ■ Lisinopril ■ Ramipril ■ Coversyl 	<p>Reduces the work the heart has to do</p> <p>Reduces blood pressure</p> <p>Helps heart failure</p> <p>Makes arteries get bigger (dilate) and this decreases blood pressure</p>	<p>Dry cough</p> <p>Dizziness</p> <p>Kidney problems</p> <p>Headache</p> <p>Swelling of the lips and tongue and face</p>
Statin		
<ul style="list-style-type: none"> ■ Pravachol ■ Cholestyramin ■ Lipitor ■ Zocor ■ Lipex ■ Atorvastatin 	<p>Lowers your cholesterol levels</p>	<p>Aching joints</p> <p>Constipation</p> <p>Diarrhoea</p> <p>Headache</p> <p>Backache</p> <p>Tingling and numbness in legs and arms</p>

Drug / Other names	What it is used for	Side effects
--------------------	---------------------	--------------

Evidence shows the next groups of medications should only be prescribed when there are further symptoms of heart disease

Calcium antagonist

■ Norvasc	Helps angina and controls blood pressure	Headache
■ Diltiazem		Facial flushing
■ Isoptin	Works on calcium in muscles to reduce the contraction of the heart	Ankle swelling
■ Adalat		Constipation
■ Cardizam		Rash

Nitrates

■ Anginine	Opens blood vessels and lets more blood flow through them	Headache
■ Isordil		Dizzy or fainting
■ Tridil	Reduces the work the heart has to do	Flushing
■ Transiderm		Low blood pressure
■ Nitradisc	Helps reduce pain/discomfort from angina	
■ Nitro-dur		
■ Nitrolingual (spray)		

Diuretics

■ Lasix		Thirst
■ Aprinox		Dry mouth
■ Spironolactone	Takes water away from your body (known as 'water tablets')	Muscle cramps
■ Indapamide		Loss of appetite
■ Chlotride	Helps heart failure. Used with other drugs for high blood pressure	Dizziness and fainting
■ Burinex		Bloating of stomach
		Mood changes

Digoxin

■ Lanoxin	Makes the heart beats regular	Sick feeling in stomach
	Helps the heart to beat more strongly	Vomiting and diarrhoea
		Blurred vision
		Tiredness
		Confusion and depression



4.2 Lifestyle management for cardiovascular disease

Aim

To highlight lifestyle strategies for cardiovascular disease.

Duration 20 minutes

Presentation – Benefits of providing better management of cardiovascular disease

Explain that providing better management of cardiovascular disease(CVD) will:

- improve the quality of life of people with cardiovascular disease(CVD)
- prevent future cardiovascular disease and progression of cardiovascular disease(CVD)
- prevent crisis situation and urgent admissions to hospital.

Some common practices occur in the treatment and management of cardiovascular disease(CVD). These depend on the type of cardiovascular disease(CVD) and how the person responds to the treatment and may include education, awareness and support involving family, carers and communities working together to:

- address self-management issues
- address psychosocial issues
- identify a person able to recognise signs and symptoms of deterioration of condition.

How to prevent cardiovascular disease



Overhead 42 – Lifestyle changes

Discuss the lifestyle changes needed to prevent cardiovascular disease(CVD) as summarised on overhead 42:

- stop smoking
- exercise for 30 minutes on most or every day. Walking is great for you as is swimming, dancing or cycling
- keep your weight within normal range for your age and height
- reduce your blood fats such as cholesterol by eating a diet low in saturated fat
- if diabetic keep your blood glucose level (BGL) within normal limits
- keep your blood pressure (BP) under control
- take all medications as advised
- try to relax and reduce stress
- limit alcohol to no more than two standard drinks a day for men and one standard drink per day for women. Also have two alcohol free days per week
- visit your GP or health worker for regular check ups
- eat healthy foods.

How to increase physical activity

The Heart Foundation recommends that over time people should aim to accumulate 30 minutes or more of moderate intensity physical activity (such as brisk walking) on most, if not all days of the week, for health benefits. The amount of activity can be accumulated in short bouts, such as three 10 minute walks. Strategies to build up the amount of exercise taken can include:

- identifying preferred methods of physical activity
- identifying barriers to increasing physical activity
- identifying strategies to overcome these barriers
- setting goals to increase physical activity.

Quitting smoking

Recap on principles discussed in previous module including:

- benefits of quitting smoking
- strategies to assist with quitting
- benefits of nicotine replacement therapy (NRT) to help quit.



4.3 Medical and surgical treatment options for coronary heart disease

Aim

To describe medical treatments available for coronary heart disease.

Duration 40 minutes

Presentation – Coronary angioplasty



Overhead 43 – Coronary angioplasty

Describe the process of coronary angioplasty, explaining that it is carried out to release a blockage in an artery by:

- inserting a catheter with a balloon into a major artery via the skin and threading it to the area of a coronary blockage
- the balloon is then inflated to create a wider passage for blood to flow
- the balloon and catheter are then removed.



Handout 22 – Coronary angioplasty

Presentation – Coronary stenting



Overhead 44 – Coronary stenting

Explain that stenting is carried out by:

- placing a plastic or metal mesh tube (stent) within the artery to form a supporting structure to hold the artery open at a point previously narrowed
- this is done following angioplasty
- the stent is left in place to keep the artery open
- the lining of the artery grows over the stent making it part of the arterial wall.



Handout 23 – Coronary stenting

Presentation – Coronary artery bypass grafting



Overhead 45 – Coronary bypass

Explain using overhead 45 that:

- coronary artery bypass grafting (CABGs) is also called bypass surgery
- this is a major operation where the chest bone and muscles are opened
- hospitalisation is usually for four days
- a healthy section of a blood vessel (arteries or veins) from another part of the body (usually the leg or chest) is taken and is attached to the coronary artery above or below the blockage to bypass the blocked area
- healing can take 6-12 weeks with some soreness of the chest wall for many months.



Handout 24 – Coronary bypass

Important message



Remember that coronary angioplasty, coronary stenting and bypass surgery are all treatments for coronary heart disease (CHD) and not a cure. The best way to lessen the risk of further disease is to reduce or remove the 'risk factors' that contribute to it.



4.4 Management of a heart attack

Aim

To provide information in the event of a heart attack.

Duration 15 minutes

Presentation – If a heart stops beating (cardiac arrest)



Overhead 46 – Cardiac arrest

State that a heart attack is life threatening, and must receive immediate treatment.

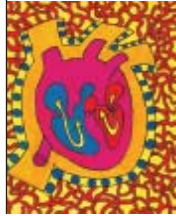
Emergency management requires:

- cardiopulmonary resuscitation (CPR)
- external chest compression to maintain blood circulation and expired air resuscitation in a person who has collapsed and has no detectable pulse and has stopped breathing
- defibrillators (machine that delivers external electric shocks to the chest to resort normal pumping action of the heart)
- administration of drugs (thrombolytic) to dissolve the clot in the coronary artery.

What happens after a heart attack?

Before leaving hospital:

- tests will be done to assess the degree of damage to the heart and the risk of another heart attack
- an exercise test is done on a treadmill or stationary bike to measure the heart's response to exercise (this can help determine how well the heart meets the challenge to an increasing work load as it works harder – known as exercise capacity)
- an X-ray of the heart (coronary angiogram) is done to look at any other blockages in the coronary arteries and to see how well the heart is pumping
- this involves a local anesthetic and the insertion of a long thin tube (catheter) into an artery in the groin or inside of the elbow. The tube is moved up the inside of the artery until it reaches the heart where a special dye is injected into the coronary arteries and x-ray pictures are taken
- this gives detailed information about how well the heart pumps the blood out of the heart and the state of the coronary arteries
- medicines may be prescribed to take long-term, such as tablets for high blood pressure (BP) or cholesterol
- a health team may be available to help plan recovery.



Returning home

A person will return home after a heart attack once they are feeling better and have no chest pain and their condition is settled. This is usually within a week or two.

After they have returned home they should:

- make an appointment with a cardiologist within a few weeks of returning home
- also make an appointment with a local General Practitioner within a week, as they will have a long-term role in helping manage the person's heart disease. This doctor will need to know what medications were prescribed in hospital and may have to give another medication script
- talk to their Doctor and AHW about when to restart various activities and how to start a regular physical activity/exercise program.

Presentation – Diagnosing heart failure

Certain tests can be conducted to assess the extent of a person's heart failure including:

- blood tests – test for the levels of kidney function and cholesterol
- electrocardiograph (ECG) – a test that picks up the electrical activity of the heart
- X-ray – can be used to show the size of the heart (an enlarged heart is a sign of heart failure)
- X-ray test undertaken in the nuclear medicine department - a small amount of radioactive dye is injected into a vein and pictures are taken as the dye fills the heart's chambers in order to tell how much blood the heart can pump with each beat
- echocardiography – uses sound waves to safely show how the heart is working.

Important message



000 Call ambulance immediately if:

- *severe chest pain (unrelieved by nitrates)*
- *severe shortness of breath or blackouts.*

Seek medical attention within 24 hours if any of the following occurs:

- *swelling ankles, increased oedema*
- *rapid weight gain (more than 1kg per day for 2 days)*
- *decreased BP with dizziness*
- *worsening shortness of breath.*

Summary

Ask if there are any comments/questions on this module, then recheck questions list you compiled at the beginning of the workshop.

Cross off questions that have been answered, at the same time going over the explanations.

Explain that remaining questions will be answered during the next session.

Briefly mention what will be covered in the next session – Module 5:

- What is cardiac rehabilitation (CR)?
- chronic condition self-management
- models of care.

Module 4 Useful resources

Australian Bureau of Statistics

The most recent statistics on the health of Aboriginal people can be found on the Australian Bureau of Statistics website www.abs.gov.au/ In the search bar enter 'Aboriginal and Torres Strait Islander' to be directed to specific information.

Australian Indigenous Health InfoNet

Summary of Australian Indigenous health available from www.healthinfonet.ecu.edu.au/html/

Australian Institute of Health and Welfare

The Australian Institute of Health and Welfare (AIHW) is the national source for health and welfare statistics. The AIHW regularly produces publications, and compiles statistical information that is available in for downloading in hardcopy.

Publication and internet sites of relevance to this manual include:

- *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander People* (Fourth edition) provides a unique overview of the health and welfare of Australia's Indigenous population. The report draws on the extensive surveys and censuses conducted by the Australian Bureau of Statistics and the range of data held by the Australian Institute of Health and Welfare. The result is a publication that covers topics as diverse as population statistics, housing and infrastructure, community services and housing assistance, health status, death and sickness, and the availability, resourcing and use of services. Authored by AIHW & Australian Bureau of Statistics. Published 2003; ISSN 1441-2004; AIHW Cat. No. IHW-11; ABS Cat. No. 4704.0
- *Chronic diseases and associated risk factors in Australia, 2001*. Canberra: AIHW. Published (2002) jointly by the Australian Bureau of Statistics and the AIHW, these reports are available in hardcopy (phone 02 6244 1032) or through the website www.aihw.gov.au/publications/index.cfm .
- *Chronic Disease Information*
Posted on the AIHW web site at www.aihw.gov.au/cdarf/diseases_pages/index.cfm
This page provides brief overviews of 12 chronic diseases and conditions that have a large impact on the health and quality of life of Australians. Specific diseases and conditions listed on this site include: coronary heart disease, stroke, lung cancer, colorectal cancer, depression, diabetes, asthma, chronic obstructive pulmonary disease, chronic kidney disease, oral diseases, arthritis and osteoporosis.
- The *National Cardiovascular Disease and Diabetes Database* (NCDDD) provides easy access to the data currently held by the Cardiovascular Disease, Diabetes and Risk Factor Monitoring Unit at the AIHW. It contains the latest available data and is updated as new data become available. The database currently contains information on deaths from cardiovascular diseases and diabetes and cardiovascular procedures and operations conducted in hospitals in Australia. It is an important source of data for epidemiologists, policy makers, researchers and others. This site may be accessed at www.aihw.gov.au/cvdhtml/cvd-menu.cfm



Australia's Health

Information on patterns of health and illness, determinants of health, the supply and use of health services, and health services expenditure is available from AIHW. The most recent of these, the ninth biennial health report of the Australian Institute of Health and Welfare is available in hardcopy (CanPrint phone 1300 889 873) or can be accessed online at www.aihw.gov.au/publications/aus/ah04/ah04-050222.pdf

Cardiovascular Disease

Heart, Stroke and Vascular Diseases: Australian Facts 2004

Comprehensive information covering patterns of cardiovascular health and illness among Australians, their associated risk factors, treatment and management of the disease are available in the publication *Heart, Stroke and Vascular Diseases: Australian Facts*. Produced jointly by the Australian Institute of Health and Welfare, National Heart Foundation of Australia, National Stroke Foundation of Australia and the Australian Diabetes Association, the most recent publication (2004) is available from the AIHW website and may be viewed online for free at www.aihw.gov.au/publications/index.cfm/title/10005.

National Heart Foundation

The Heart Foundation produces a broad range of resources that are available for both members of the public and, for professionals, independent evidence-based cardiovascular health information.

Specific and statistical information is available in a variety of specific areas including: *Aboriginal and Torres Strait Islander, Acute Coronary Syndrome, Blood Pressure, Heart Failure, Lipid Management, Medications, Nutrition, Obesity, Physical Activity, Tobacco and Data Sets*. Resources for professionals include health policies, information sheets, guidelines and other professional resources. These are developed by the National Heart Foundation with expert input and are also available for downloading.

Publications and information are available for viewing on the website of the organisation at www.heartfoundation.com.au

A Heart Resource Catalogue is also available listing resources and publications. These are available by calling the Heartline on 1300 36 27 87.

Health Education and Vascular Health Resources for Aboriginal and Torres Strait Islanders

- *Aboriginal Health Worker Heart Health Manual: a resource for the certificate in cardiovascular health for Aboriginal Health Workers*, developed jointly by National Heart Foundation, (WA Division) and Derbarl Yerrigan Health Services (2001) National Heart Foundation, Perth.
- *Aboriginal Vascular Health Program: Health Education Pamphlets* (series of 13 pamphlets) (Revised January 2005) SHPN (AH) 040076- 040087, NSW Department of Health, Sydney. Available through *The Better Health Centre*, NSW Health. To obtain hardcopies of the pamphlets please contact the NSW Better Health Centre on ph: (02) 9816 0452.

SUMMARY: MODULE 5 CARDIAC REHABILITATION – TAKING CONTROL

Content

- 5.1 What is cardiac rehabilitation?
- 5.2 Components of cardiac rehabilitation
- 5.3 Cardiovascular disease – Impacts on Indigenous Australians and cardiac rehabilitation programs

Duration 90 minutes

Objectives

By the end of this module participants will be able to:

- define cardiac rehabilitation
- list the barriers to cardiac rehabilitation for Aboriginal people
- discuss concepts of chronic condition self-management
- describe alternative models of care for chronic conditions.

Handouts

25–28

Overheads

47–49



module 5

MODULE 5 PLAN AT A GLANCE

5.1 What is cardiac rehabilitation?

Sub topic	Explanation	Overhead	Handout
Understanding cardiac rehabilitation	Define the term cardiac rehabilitation (CR)	47	
What does cardiac rehabilitation (CR) consist of?	Explain the components of a cardiac rehabilitation (CR) program		25

5.2 Components of cardiac rehabilitation

Phases of cardiac rehabilitation (CR)	Inpatient, outpatient and maintenance phases		26
Who are the cardiac rehabilitation (CR) team?	List members of team, patient is at centre	48	

5.3 Cardiovascular disease – impacts on indigenous Australians

Background information	Incidence and mortality from cardiovascular disease in Aboriginal people		
Activity	Barriers to cardiac rehabilitation (CR) – large group discussion. Record ideas on whiteboard.		
Alternate models of care	Seek participant ideas on making cardiac rehabilitation (CR) more accessible, sum up with overhead 49	49	
Activity	Where to now. Small group discussion of where to go with new knowledge and ideas. Record on handout and feedback to large group.		27
	Provide resources handout		28

Workshop close **Thank participants**

TEACHING NOTES: MODULE 5

CARDIAC REHABILITATION – TAKING CONTROL

5.1 What is cardiac rehabilitation?

Aim

To describe cardiac rehabilitation and why it is important for patients with cardiovascular disease or at risk of developing cardiovascular disease.

Duration 30 minutes



Presentation – Understanding cardiac rehabilitation



Overhead 47 – Cardiac rehabilitation

Present overhead 47 and explain the following:

- Cardiac Rehabilitation Units were first established throughout the world in the 1950s and 1960s
- the first Cardiac Rehabilitation Program in Australia was organised by the National Heart Foundation (NHF) and ran in 1961.

What is cardiac rehabilitation?

Cardiac rehabilitation (CR):

- is designed to help people recover quickly from acute events (heart attack, angina, heart failure)
- helps the patient and their family/carers to accept the disease, manage the risk factors and make the best recovery possible
- is 'all measures used to help cardiac patients return to an active and satisfying life and to prevent reoccurrence of cardiac events' (National Heart Foundation)

Who is it for?

Cardiac rehabilitation is:

- for individuals, families and communities with heart problems or risk factors that cause heart disease
- available to all clients (men and women) and to all age groups
- an integral part of the management of heart disease
- designed to help through all phases of heart disease including prevention for those at high risk (high blood pressure, high cholesterol, cigarette smoking), management for those who have had a stent or bypass and follow up treatment and guidelines to enable people to better manage their heart problems.

What are the aims of cardiac rehabilitation?

The broad aims of cardiac rehabilitation are to:

- maximise physical, psychological and social functioning to enable patients to live productively and with confidence
- assist and encourage behaviours that may minimise the risk of further cardiac events and conditions.

More specific aims cardiac of rehabilitation include:

- assisting and shortening the period of recovery after an acute cardiac event
- promoting strategies for achieving mutually agreed goals of secondary prevention
- developing and maintaining skills for behaviour change
- promoting appropriate use of health and community services.

Cardiac rehabilitation is an organised approach to achieve the above aims and should be integrated into the routine management of all patients.

The treating doctor, cardiac rehabilitation team members, Aboriginal Health Workers and the patient should all be involved in planning the patient's rehabilitation to ensure that the appropriate cardiac rehabilitation services are available to meet the needs of the patient and their family.

Presentation – What does cardiac rehabilitation consist of?



Handout 25 – What is cardiac rehabilitation

Discuss the diagram on the handout, explaining that cardiac rehabilitation (CR) includes:

- education
- counselling and support
- discharge planning
- mobilisation and exercise.

Cardiac rehabilitation (CR) aims to encourage behaviours that are likely to reduce the risk of further cardiovascular events and conditions, such as identifying and modifying risk factors and encouraging adherence to recommended medical therapies.

5.2 Components of cardiac rehabilitation

Aim

To provide an overview of the elements of cardiac rehabilitation

Duration 30 minutes

Presentation – Phases of cardiac rehabilitation



Handout 26 – Phases of cardiac rehabilitation

Discuss the phases of rehabilitation as explained on the handout.

Phase 1 – In patient

Begins as soon as possible after admission to hospital. It consists of basic information and reassurance for the person and their family. Time should also be given to devising a mobilisation and education plan and appropriate discharge plan.

Phase 2 – Outpatient

- This occurs on discharge from hospital and lasts until recovery has taken place.
- It takes place in a variety of settings (homes, clinics, hospitals, private sectors, community halls)
- Main elements of outpatient rehabilitation are:
 - education
 - exercise
 - counselling
 - lifestyle modification self-management.
- This phase of the recovery process focuses on empowering the person to adopt life-long, self-management strategies to prevent further cardiovascular events.

Phase 3 – Maintenance

Generally described as that stage of a person's recovery when they have successfully progressed through phase 1 and phase 2. The person has now progressed to self-management, with support from community-based services such as Aboriginal Health Workers (AHW), General Practitioners, Aboriginal Medical Services (AMS) etc.

Presentation – Who are the cardiac rehabilitation team?



Overhead 48 – Cardiac Rehabilitation team

The World Health Organisation recommends that cardiac rehabilitation be available and offered to all patients with cardiovascular disease (CVD) and be delivered by trained health professionals. The coordinator is usually a specially trained nurse, but other health professionals can also coordinate the team.

The patient is always the centre of the team.



Team members can include:

- Coordinator / Nurses
- Doctors
- Exercise Specialist
- Physiotherapist and Occupational Therapist
- Dietitians
- Social workers
- Psychologists
- Pharmacists
- Aboriginal Health Workers
- family
- community.

5.3 Cardiovascular disease – Impacts on Indigenous Australians and cardiac rehabilitation programs

Aim

To discuss the need for culturally appropriate cardiac rehabilitation programs for Aboriginal people

Duration 30 minutes



Presentation – Background information

State that:

- coronary heart disease affects 1 in 6 Australians and this figure is expected to grow. By mid-century it is anticipated to increase to 1 in 4.
- coronary heart disease (CHD) which includes heart attack and angina, is the leading cause of death for both Indigenous and non-Indigenous people
- the health and economic burden of coronary heart disease (CHD) exceeds that of any other disease
- the incidence and mortality from coronary heart disease (CHD) in Aboriginal populations is much greater than in non-Aboriginal populations
- Aboriginal people are twice as likely to die from coronary heart disease (CHD) with death rates greatest in the younger age groups 25-54 years
- Aboriginal people have higher rates of risk factors for coronary heart disease (CHD) compared to non-Aboriginal people
- the risk factors include physiological, behavioural, social, economic and biological risks. Within Aboriginal communities there is an evidence base to suggest that reducing risk factors is effective
- there are numerous programs throughout Australia, which address coronary heart disease (CHD) within a primary care model; there is however, a paucity of information in relation to the effectiveness of and barriers to cardiac rehabilitation (CR) in Aboriginal communities
- it is also well known that Aboriginal people do not access mainstream health including cardiac rehabilitation (CR) programs
- as the number of Aboriginal people trained in health professions increases it is hoped that more Aboriginal people will access culturally appropriate services.

Activity – Barriers to cardiac rehabilitation

Conduct an open group discussion, asking participants:



Q: What factors do you think have an effect on the involvement of Aboriginal people in cardiac rehabilitation?

Brainstorm ideas onto the whiteboard. The following information can be used in the discussion.

Participation rates in cardiac rehabilitation (CR) programs in all population groups have been slow with less than desirable numbers attending. Some of the reasons for the low participation rates are:

- time
- financial constraints
- transport issues
- work related issues
- failure by medical clinicians to refer their patients.

There are groups where participation rates are even lower, these include women, the aged, less educated patients and those from lower socio-economical groups. Amongst these groups are Aboriginal Australians, who have additional barriers such as:

- suitability of current programs
- inappropriate education material
- lack of support to enrol in programs
- culturally inappropriate venues.

There have been attempts to try to find out how to improve the rates of participation of Aboriginal people to undergo some form of cardiac rehabilitation(CR). The National Heart Foundation acknowledge that if identified by the patient as appropriate, Aboriginal Health Workers should be included in the cardiac rehabilitation(CR) team to work with other health professionals to provide best practice cardiac rehabilitation(CR) services to Indigenous people. There have also been suggestions that cardiac rehabilitation(CR) in the Aboriginal population should be offered as an outreach program.

Presentation – Alternate models of cardiac rehabilitation in Aboriginal communities

Ask participants for their ideas on how to make cardiac rehabilitation in their community more accessible to Aboriginal people.



Overhead 49 – Alternate models of care

Ensure the following points are addressed.

Aboriginal people do not access mainstream cardiac rehabilitation services. The National Heart Foundation (NHF) and the National Health Medical Research Council (NHMRC) are exploring alternative approaches for cardiac rehabilitation (CR) programs for Aboriginal communities, other than hospital-based cardiac rehabilitation(CR) programs. The following recommendations need to be considered in planning for alternative approaches:

- education sessions should include family and community members
- cardiovascular disease risk factor management using health promotion principles including developing patients skills
- creating supportive environments
- building healthy public policy
- reorienting health services
- conducting sessions in a culturally safe environment
- building community capacity
- community driven
- outreach services.

Self-management

Self-management is a process whereby patients can engage in activities that protect and promote their health, manage their symptoms and signs of illness, monitor behaviours and manage the impact of their condition.

Self-management support has been described as working in partnership focussing on empowering and preparing patients to manage their health and health care through :

- *emphasizing the patient's central role in managing their health*
- *use of effective self-management support strategies that include assessment, goal setting, action planning, problem solving and follow up*
- *organising internal and community resources to provide ongoing self-management support to patients*

Excerpt from Wagner, E.H. (1998). Chronic disease management: What will it take to improve care for chronic illness? Effective Clinical Practice. 1: p2-4

This recognises that most ongoing management of chronic conditions takes place in the community setting in the context of people's individual life situation and in the absence of health professionals. Self-management support incorporates a philosophical and practical approach of empowering people to make decisions and to manage their health and health care within the bounds of their circumstances and capacity. Building the evidence base demonstrating the effectiveness of self-management support is critical.

A self-management support approach involves:

- working in partnership with patients, their carers and families to ensure shared decision making and incorporation of patient preferences into clinical care and support
- enhancing self-efficacy (one's belief in oneself to undertake a particular task) to manage one's illness
- providing assessment, goal setting, action planning, problem solving and follow-up based on patient decision making and preferences
- linking patients, their carers and families with appropriate services and resources to support self-care and health enhancement
- providing information and education, which is tailored to the patient's needs and stage of the illness trajectory.

Activity – Where to now



Handout 27 – Where to now?

Ask participants to break into small groups to consider the questions on handout 27. Each group should nominate a spokesperson to feedback their ideas to the whole group.



Summary

Check question list generated at the start of the day. Note if any questions remain outstanding and how they will be followed up.



Handout 28 – References and resources

Distribute handout 28, a list of references and resources that may be used by health workers to access the most recent statistical information or to gather resources to distribute to community members.

Thank participants for their involvement in the workshop.

Workshop close

Module 5 Useful resources

Australian Institute of Health and Welfare

- *Heart, Stroke And Vascular Diseases, Australian Facts 2004.*
Australian Institute of Health and Welfare, National Heart Foundation of Australia, National Stroke Foundation of Australia, Canberra. Authored by AIHW Cat. No. CVD-27
- *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2004.*
Australian Bureau of Statistics, Australian Institute of Health and Welfare (2003) Canberra: Australian Bureau of Statistics, AIHW Cat.No.4704.0
- *Secondary prevention and rehabilitation after coronary events or stroke: a review of monitoring issues.* Australian Institute of Health and Welfare (2003) Cat. No. CVD 25. Canberra: Australian Institute of Health and Welfare.
- *National Health Priority Areas Report: Cardiovascular Health 1998.*
Commonwealth Department of Health and Aged Care, Australian Institute of Health and Welfare (1999) Canberra: Australian Institute of Health and Welfare

Cardiac Rehabilitation

- *Best Practice Guidelines For Cardiac Rehabilitation and Secondary Prevention,*
Goble, A. J. & Worcester M., (1999) Health Research Centre. Melbourne
- *Improving Access to Cardiac Rehabilitation for Remote Indigenous Clients*
Shepherd, F., Battye, K., Chalmers, E., & Bala, M (2001) Proceedings of the 6th National Rural Health Conference Canberra, Australian Capital Territory, 2001.
- *Recommended Framework for Cardiac Rehabilitation*
National Heart Foundation of Australia. (2004) (Online) Accessed on 31.05.05 . Available at www.heartfoundation.com.au/downloads/CR_04_Rec_Final.pdf
- *Rehabilitation after Cardiovascular Diseases, with Special Emphasis on Developing Countries*
World Health Organisation, Organisational Expert Committee (1993) Technical Report Series, No 831 Geneva WHO. Accessed on 31.05.05 . Available at www.who.int/bookorders/anglais/detart1.jsp?sesslan=1&codlan=1&codcol=10&codcch=831
- *Strengthening Cardiac Rehabilitation and Secondary Prevention for Aboriginal and Torres Strait Islander Peoples: A Guide for Health Professionals*
The National Health and Medical Research Council (NHMRC) has developed this guide with the aim of providing health services (including Aboriginal Health Services, hospitals, primary health care workers and Aboriginal Health Workers) with strategies to improve uptake and access to cardiac rehabilitation services. It is hoped that this will help to improve the general health and prevent further cardiac events in Aboriginal and Torres Strait Islander people with heart disease. To obtain details regarding NHMRC publications contact: Tel: Toll Free 1800 020 103 extension 9520, email: nhmrc.publications@nhmrc.gov.au, internet: www.nhmrc.gov.au
ISBN Print: 1864962666, National Health and Medical Research Council, Australian Government 2005, Canberra



Chronic Disease

- *Chronic disease management: What will it take to improve care for chronic illness?*
Wagner, E.H. (1998) Effective Clinical Practice. 1: p2-4. Accessed online on 31.05.05. Available from www.improvingchroniccare.org/change/model/smsupport.html

National Heart Foundation

- The Heart Foundation produces a broad range of resources that are available for both members of the public on subjects including:
 - *Life after heart attack*
 - *Physical activity after heart attack and heart surgery*
 - *Lets talk about heart failure*
- *Taking Control of Your Life*
A short video for patients recovering from heart disease that outlines the main elements of cardiac rehabilitation and encourages participation in programs.
Publications and resources are available for ordering through Heartline 1300 36 27 87
- *Cardiac Rehabilitation Program National Datalist.*
The National Heart Foundation maintains a comprehensive data list of cardiac rehabilitation programs provided throughout Australia. For information about cardiac rehabilitation programs in your area contact Heartline 1300 36 27 87

NSW Department of Health

- *Clinical Service Framework for Heart Failure* (Volume 1 and 2).
The framework outlines best practice approaches for the management of patients with heart failure. Standards cover issues such as prevention, identification and management of factors that precipitate and exacerbate congestive heart failure (CHF), assessment and diagnosis, essential components of multidisciplinary care, best practice pharmacological and non-pharmacological management, self-management, rehabilitation and palliative care. SHPN(QCP) 030179 and SHPN (QCP) 030180. Copies of this document are available from the Better Health Centre on ph: (02) 9816 0452 or online www.health.nsw.gov.au/pubs/c/pdf/heartfailure_1.pdf
- *My Health Record* is a folder that holds information about a patient's health in one place. It contains details about a patient's medical condition and the treatment recommended by doctors and other health care providers. My Health Record allows patients and their health workers to keep track of important health records in a single place and be aware of what is being done. Copies of My Health Record are available from local health services including public hospitals or community health centres.