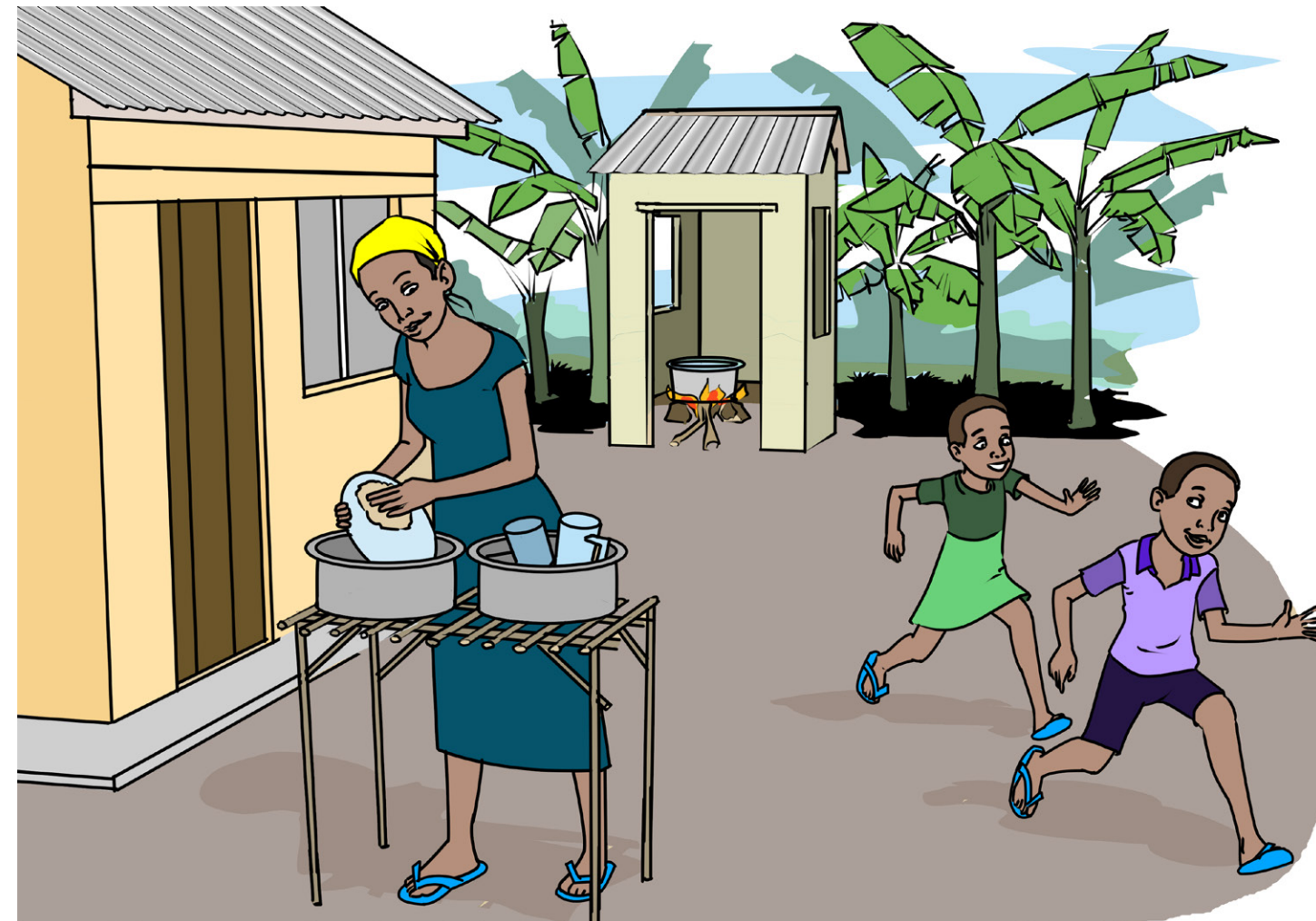




THE IMPORTANCE OF HOUSEHOLD AIR POLLUTION EXPOSURE REDUCTION

FLIP CHART FOR HEALTH WORKERS (MIDWIVES)



FRESH AIR
UGANDA

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TIPS

- Best used in a clinic setting for one to one or small (5-12 people) community outreach.
- Make sure that the client can see the images while you explain.
- Point to the illustrations as you talk- while you read the text behind.

ADVICE ON DELIVERING THE MESSAGE

- Make the client feel welcome and relaxed to talk to you openly.
- Face your clients while talking.
- Ask questions and encourage discussion- especially about their desires and experience.
- Keep checking that the clients understand you (e.g. ask if they can repeat what you previously told them).
- Ask the clients if they have any questions to ask you.

HOW TO USE THIS FLIP CHART

1. Your client may ask you questions. Use the frequently asked questions section to guide your answers.
2. Remember to always refer them to nearby facilities in case you have conducted the health education in the community.

INTRODUCTION.

Research has shown a relationship between pregnancy-related complications (pre-eclampsia, pre-mature labour, antepartum haemorrhage), poor newborn(low birth weight, and neonatal deaths), and exposure to biomass smoke. In addition, the high levels of particulate matter, carbon monoxide and other pollutants in the environment, have been associated with increased occurrence of acute respiratory tract infections, pneumonia, asthma attacks and poor lung function in young children. Thus there is evidence that people of all ages are at risk from biomass smoke exposure. The greatest damage to a child's lungs occurs during pregnancy and infancy.

In order to ensure proper lung growth and reduce infant mortality from respiratory tract problems, interventions to reduce exposure to biomass smoke during

pregnancy and early childhood are needed. Furthermore, reduction of exposure to biomass smoke among pregnant mothers leads to other benefits such as reduced exposure in children because, in many communities, the children are always in close contact with their mothers as they (mothers) do their household chores including cooking.

In a study in Uganda we have shown that many people are widely exposed to biomass smoke throughout their lifetime, and this has been associated with many respiratory diseases and impaired lung function, especially in younger women.

Midwives have unrivaled access to pregnant women and already have dedicated education sessions which are very well attended. However, they currently do not offer any education sessions on biomass smoke mainly due to lack/low awareness about the effects of biomass exposure and its impact on pregnancy outcomes and child health.

This flip chart therefore is to be used by midwives to conduct health education sessions during ANC and PNC clinics with clients.

WHAT IS HOUSEHOLD AIR POLLUTION?

Household Air Pollution refers to chemical, biological and physical contamination of the air inside the houses, including kitchens indoor air. It can lead to adverse health effects in people of all age groups. Household Air Pollution (HAP) from biomass smoke is a major public health especially in low-income countries, where more than 90% of households use biomass for cooking, lighting and heating.

Household air pollution is a major public health problem

KEY MESSAGES

Note: Always remember to give these take away messages to the audience after every session.

- Always attend ANC appointments for monitoring of your pregnancy.
- Avoid staying in the kitchen for long hours while cooking.
- Keep babies and young children away from the smoke/kitchen.
- The effects of the smoke may not be immediately visible but are very detrimental/harmful to the baby's/mother's health.

WHAT IS BIOMASS SMOKE?

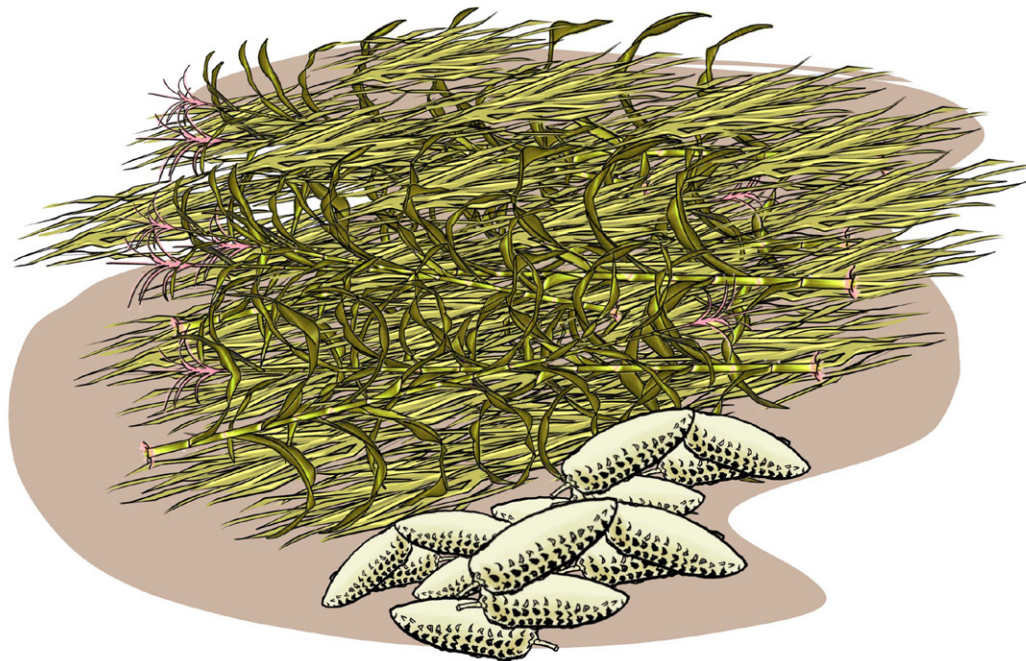
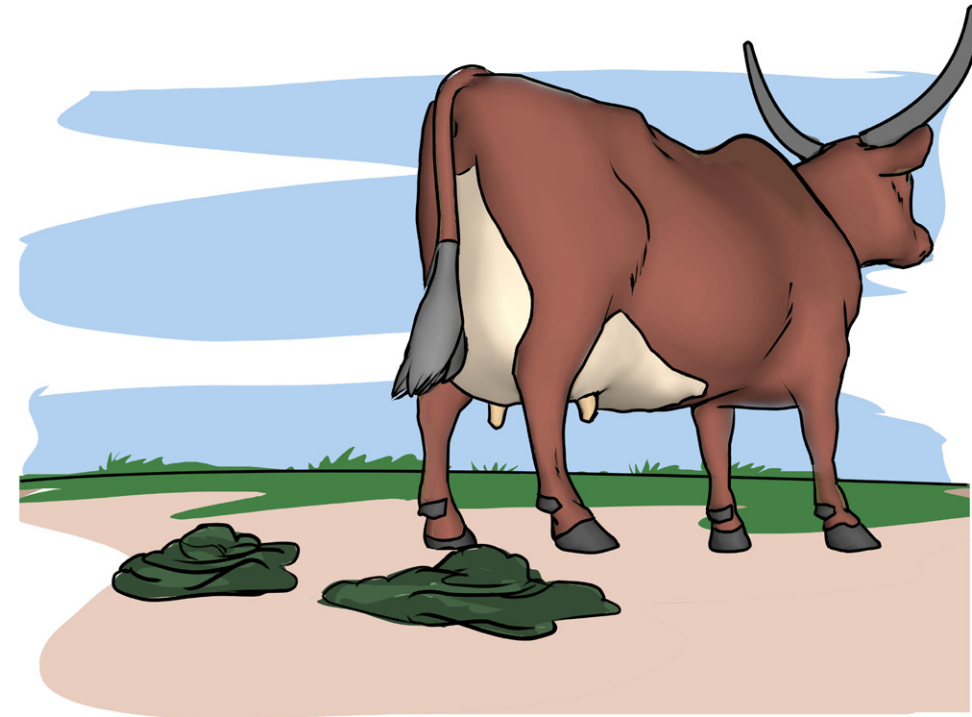


WHAT IS BIOMASS SMOKE?

Biomass is any organic matter- wood, crops, seaweed, animal waste that can be used as a source of energy.



SOURCES OF BIOMASS SMOKE.



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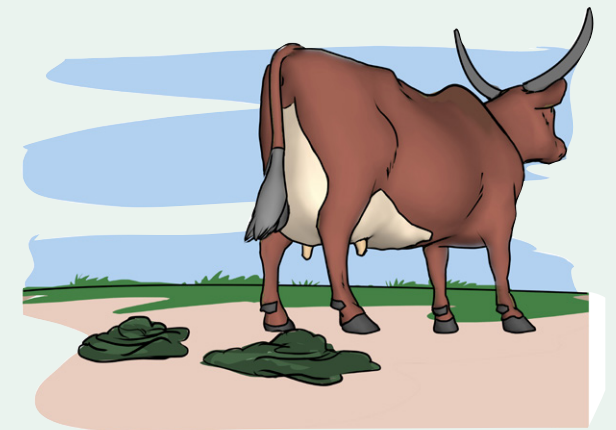
The major sources of biomass smoke are;

- Firewood,
- Charcoal,
- Crop residues and
- Dung from animals.

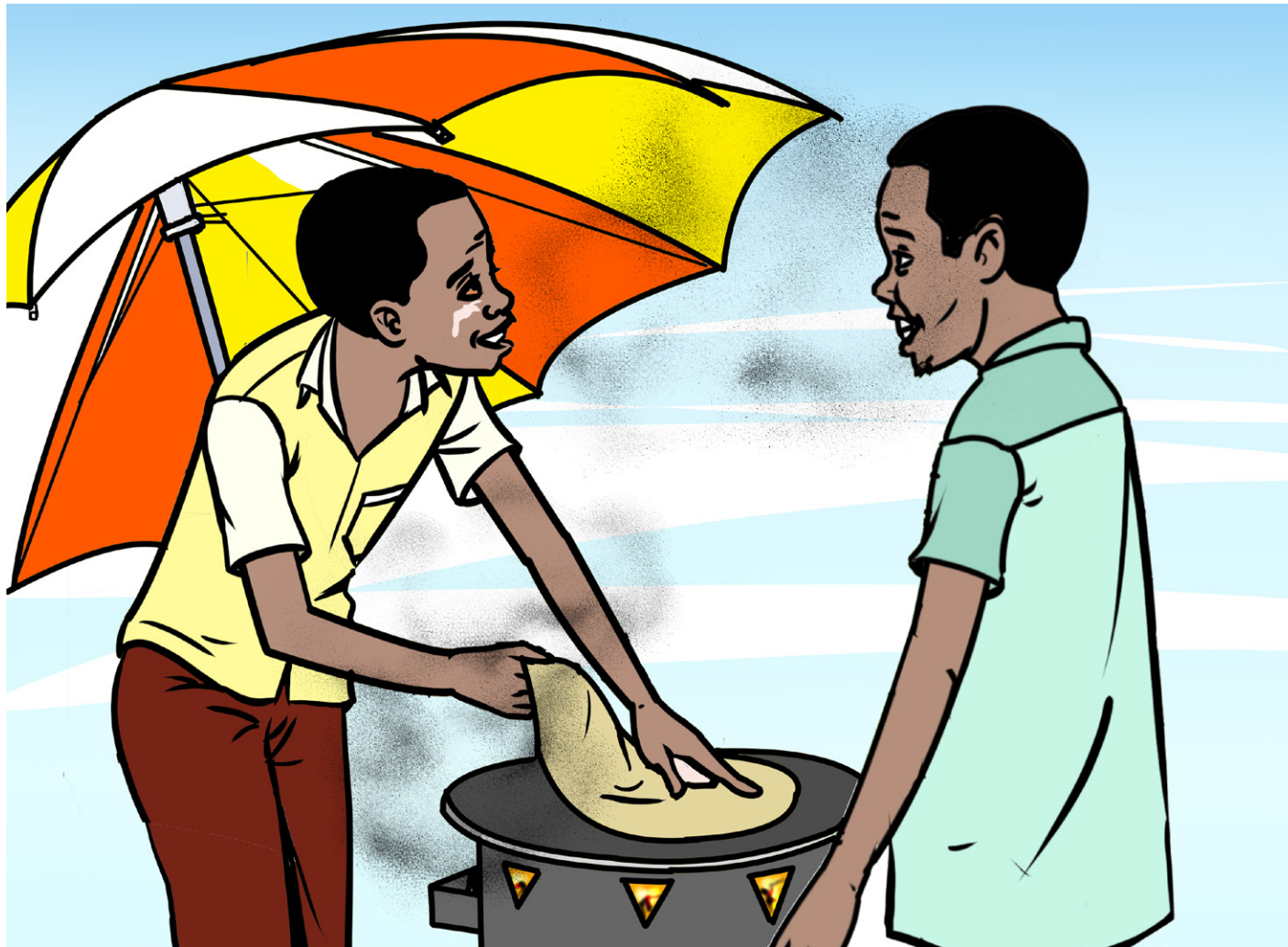
OTHER SOURCES OF HOUSEHOLD AIR POLLUTION.

Apart from the above sources of household air pollution through exposure to biomass smoke, there are other sources like:

- Tobacco smoke.
- Using kerosene lamp (tadooba).
- Using wax candles.



WHO IS MOST AFFECTED BY BIOMASS SMOKE.



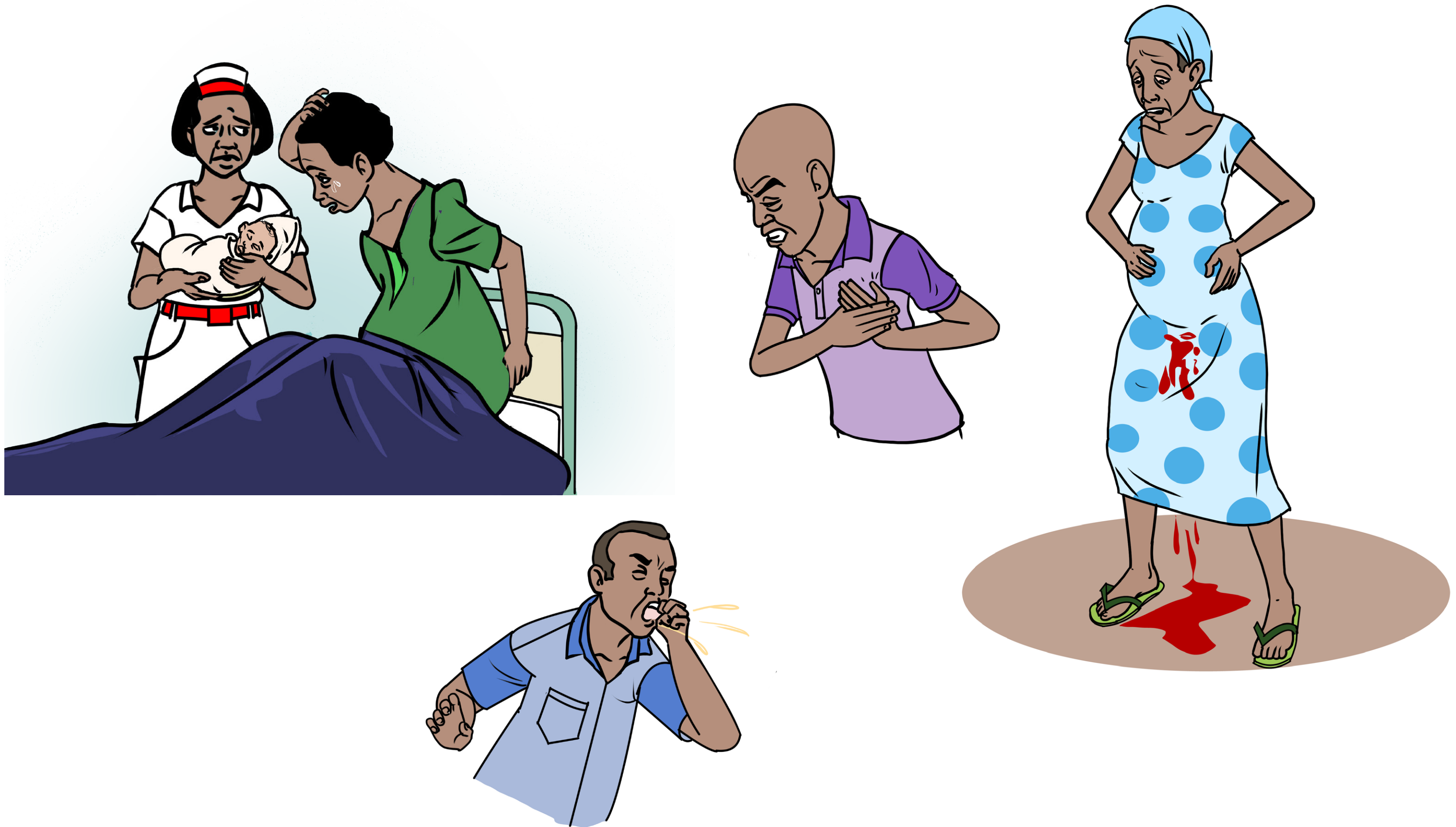
WHO IS MOST AFFECTED BY BIOMASS SMOKE.

Women and young girls. This is because of the traditions and cultures that require them to cook and spend a long time doing so hence prolonged exposure to biomass smoke.

In addition, young children are affected by biomass smoke because of their close contact with their mothers and young girls through the day.



EFFECT OF HOUSEHOLD AIR POLLUTION/BIOMASS SMOKE.



EFFECT OF HOUSEHOLD AIR POLLUTION/BIOMASS SMOKE.

In pregnancy

- Growth of baby is slowed, hence giving birth to small babies.
- Increased risk of premature births.
- Increased risk of stillbirth.
- Increased risk of antipartum hemorrhage.
- Increased risk of pre-eclampsia.

In children

Increased risk of:

- Acute respiratory tract infections.
- Pneumonia.
- Asthma.
- TB.

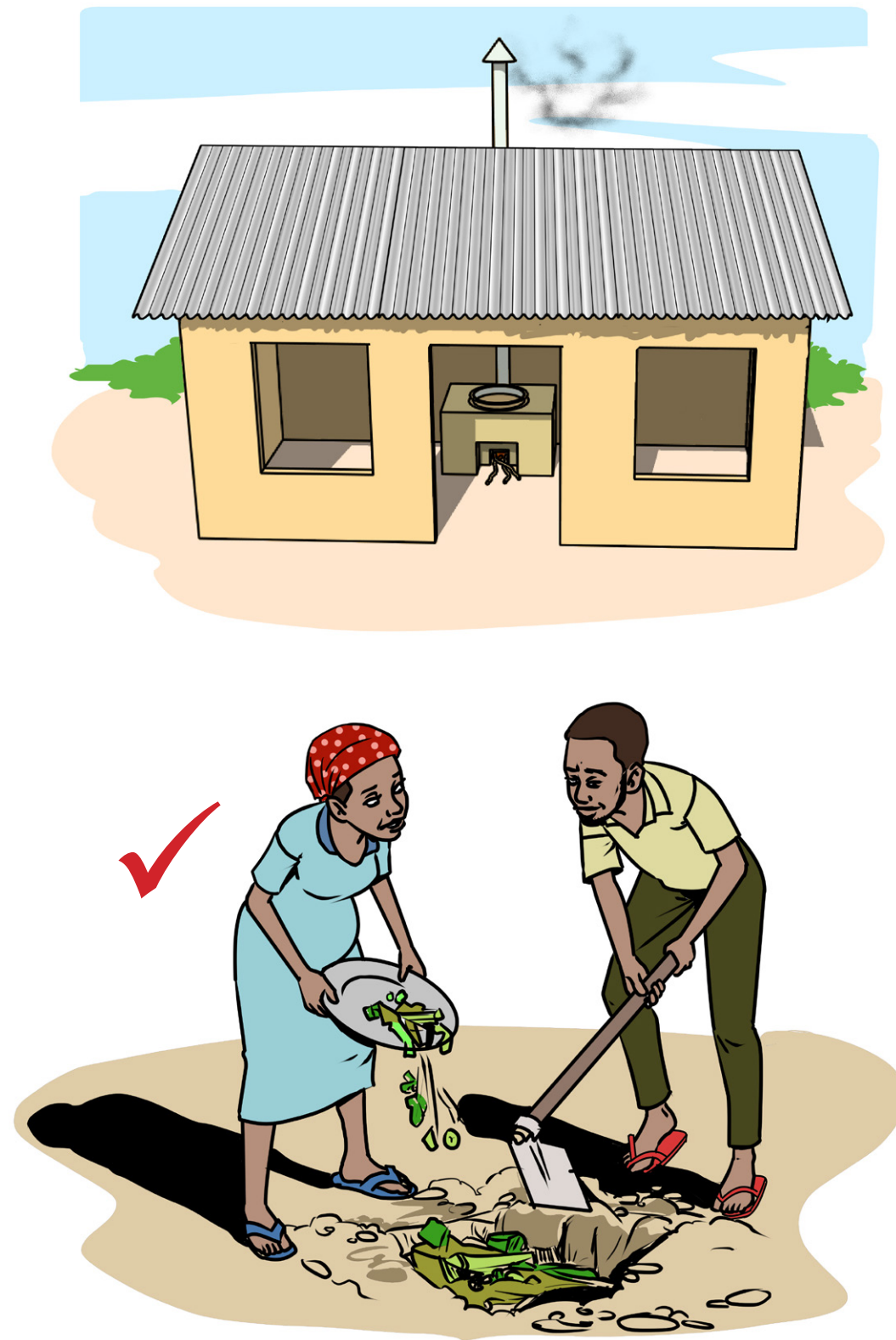
In adults

Increased risk of:

- Asthma.
- COPD- Chronic Obstructive Pulmonary (lung) Disease.
- Heart disease.
- Cancer (especially Lung and the larynx).



HOW TO PREVENT/REDUCE EXPOSURE TO BIOMASS SMOKE.

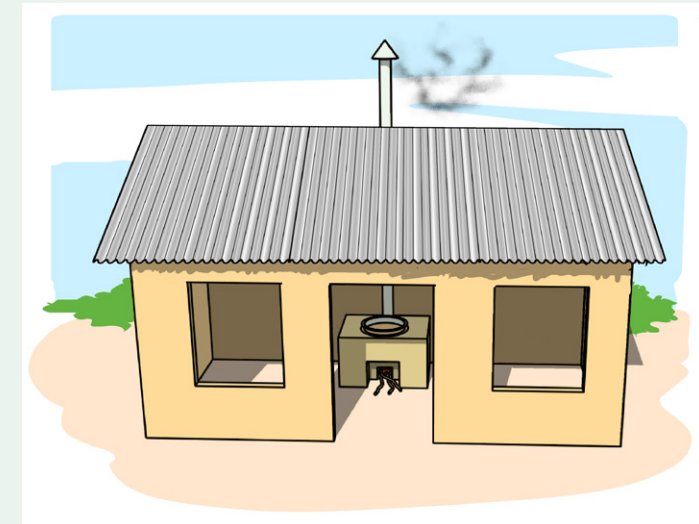


HOW TO PREVENT/REDUCE EXPOSURE TO BIOMASS SMOKE.

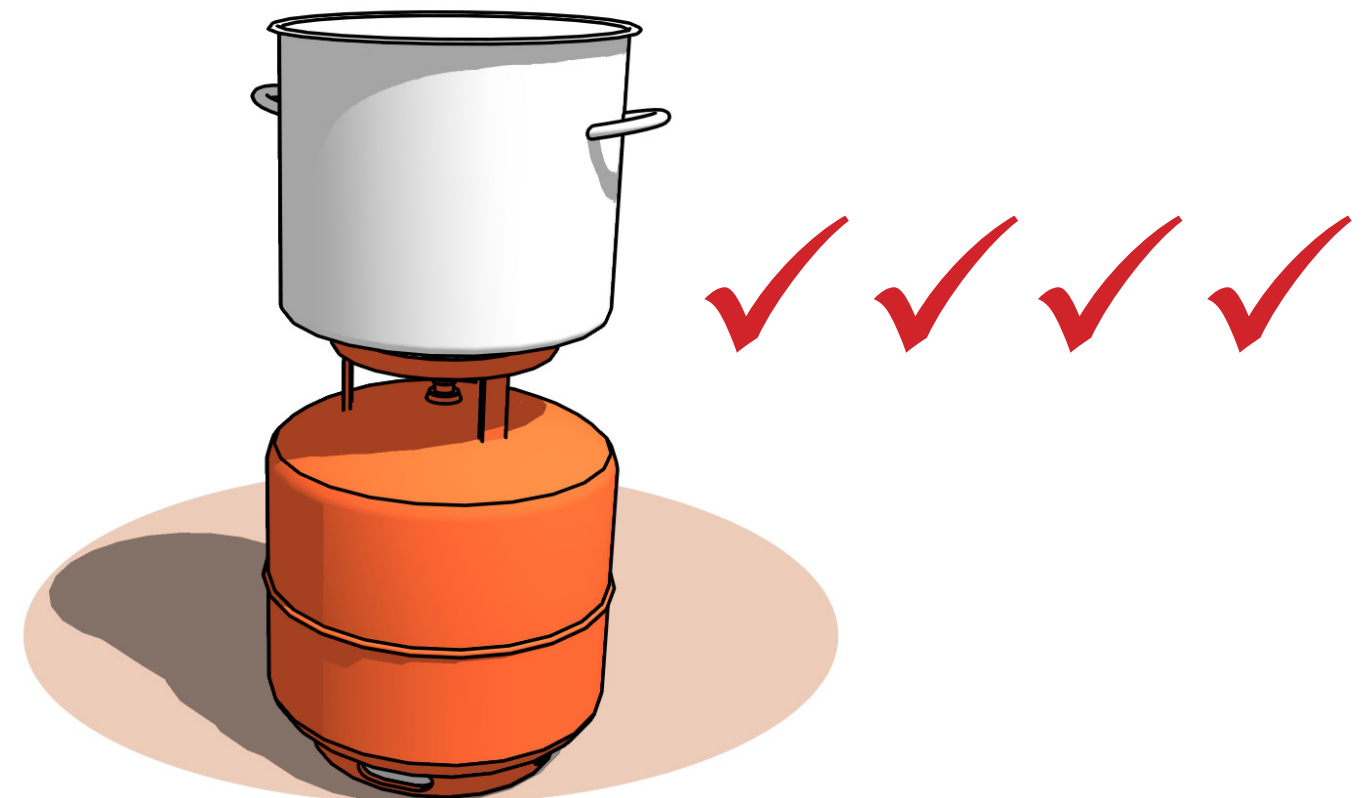
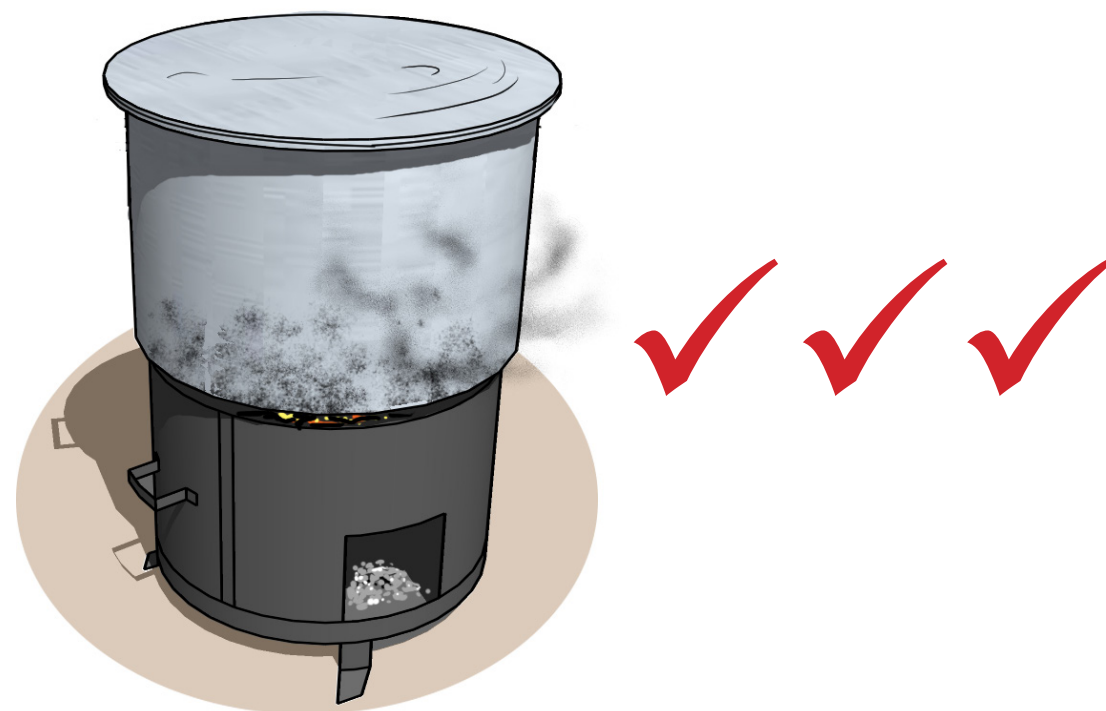
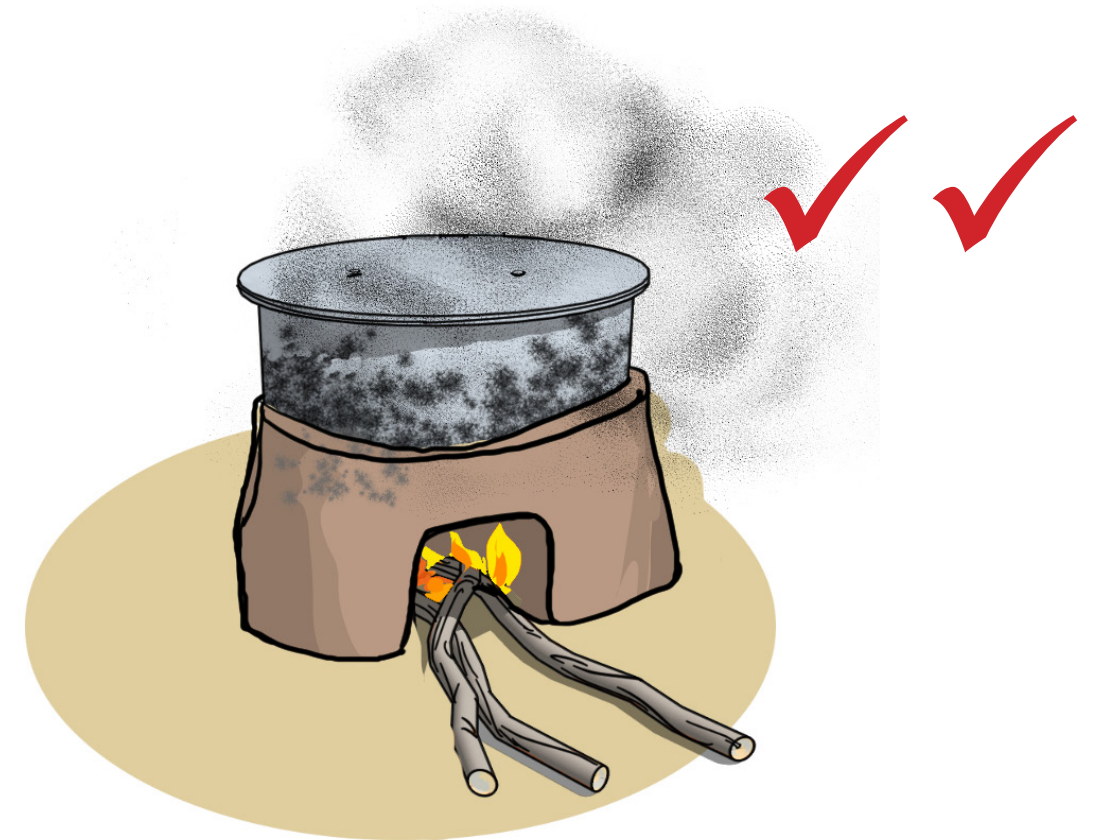
- Reduce the amount of time spent by the fire especially mothers and small children.
- Keep children out of the kitchen especially when the fire is producing smoke.
- Do not put babies in smoky places.
- Avoid burning rubbish and leaves, recycle or dispose of plastic. Leaves and other organic matter should be buried or taken to the garden (this actually improves soil fertility).

HOW TO REDUCE EXPOSURE IN A KITCHEN.

- Kitchen ventilation requires good air flow.
- 2 windows which are adjacent one another.
- Eaves spaces.
- A hood to collect smoke from fire.
- A stove with a chimney.
- Alternatively build a new cooking hut with good ventilation.



COMMON TYPES OF COOKING METHODS, FUEL AND ALTERNATIVES THAT REDUCE SMOKE.



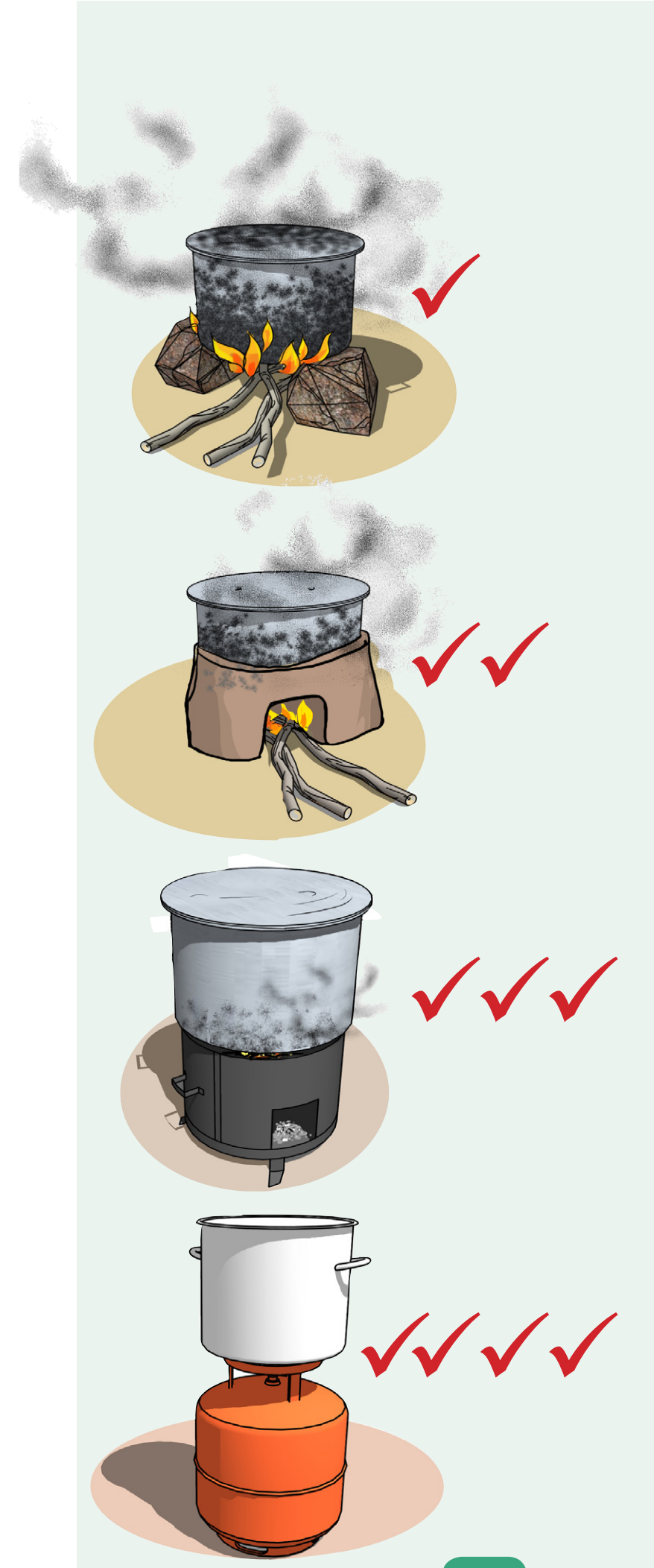
COMMON TYPES OF COOKING METHODS, FUEL AND ALTERNATIVES THAT REDUCE SMOKE.

Fuel.

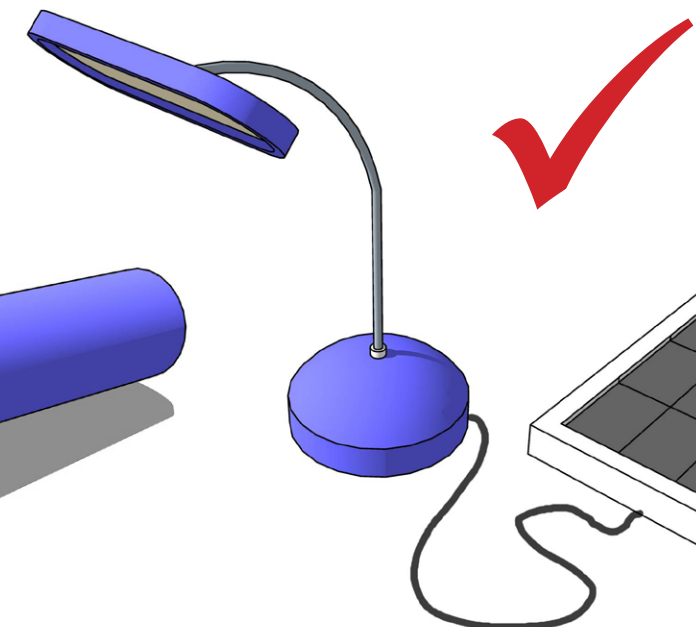
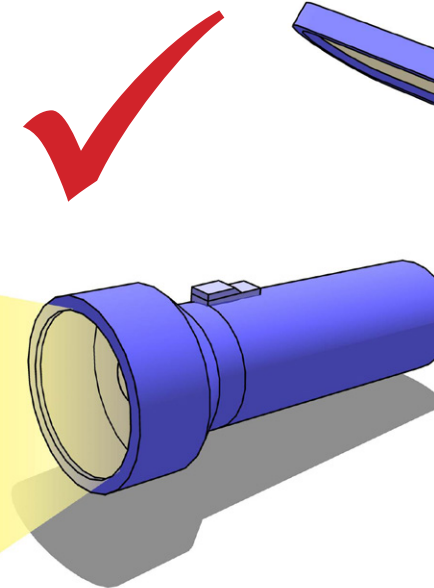
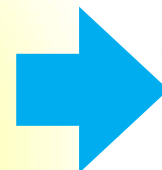
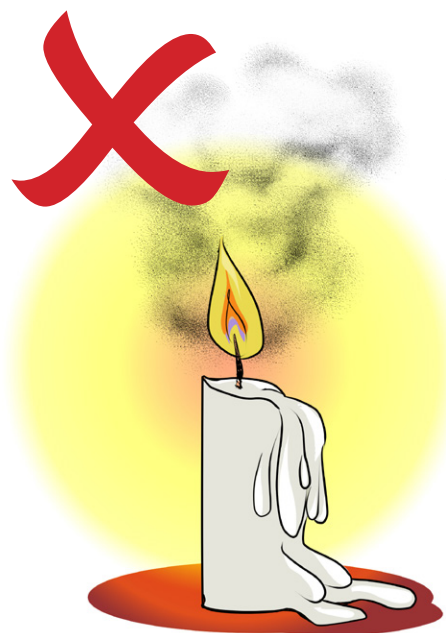
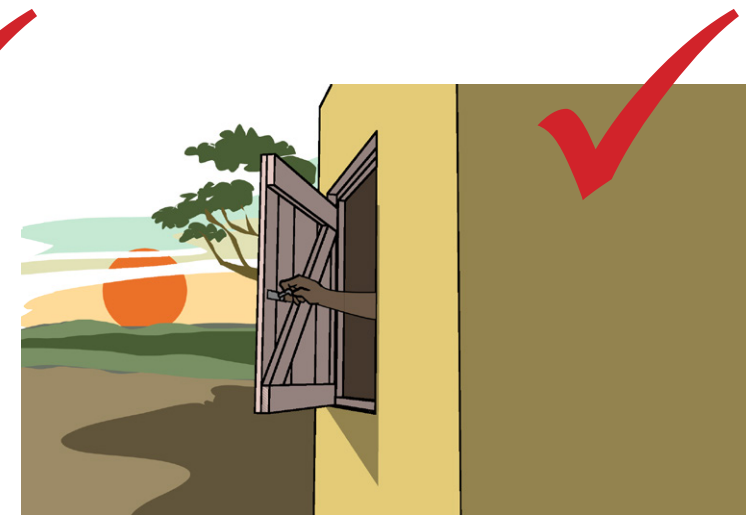
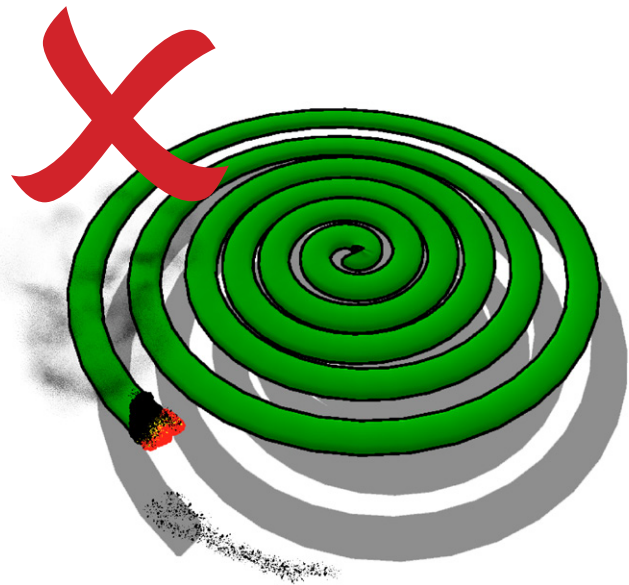
- Dry wood is better than wet wood.
- Charcoal is better than dry wood.
- Gas is better than charcoal.

Cookers and cooking.

- Cooking with lids on pans reduces the time to boil.
- Retained heat cooking – the boiling pot is put into a box and packed around with suitable materials to keep it hot for a long time may be used to keep things hot.
- There are many types of new/clean cook stoves which:
 - Burn wood/charcoal more cleanly- more heat less smoke.
 - Use much less wood.
 - Reduce risk of burns.



OTHER SOURCES OF HOUSEHOLD SMOKE AND HOW TO REDUCE EXPOSURE TO THEM.



OTHER SOURCES OF HOUSEHOLD SMOKE AND HOW TO REDUCE EXPOSURE TO THEM.

Other sources of household smoke include;

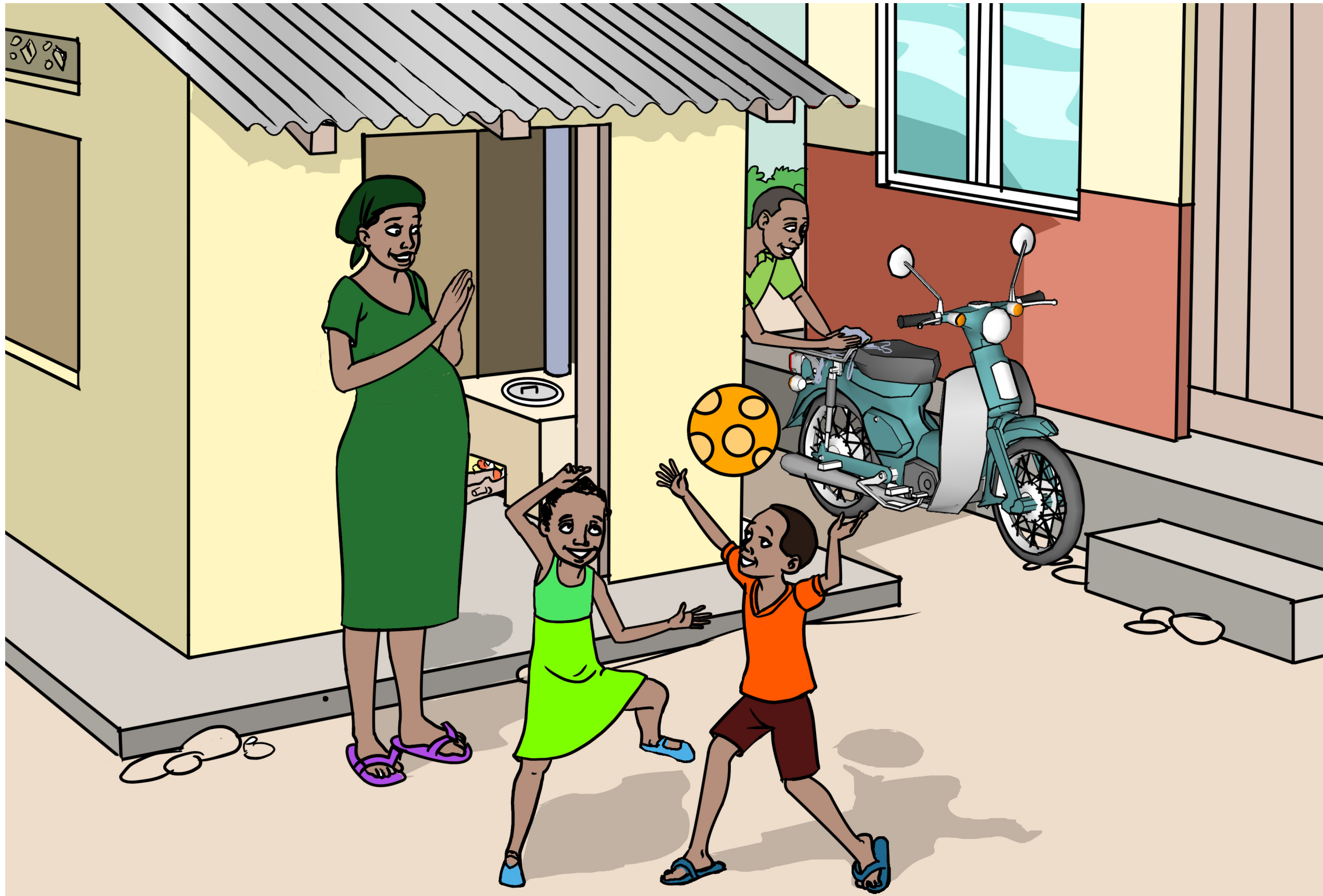
- Kerosene lamp (Tadooba).
- Mosquito coil.
- Tobacco smoke.
- Wax candles.
- Latern.

How to reduce exposure to the above;

- Avoid burning kerosene lamps, but if they are used do not let them burn all night.
- Avoid burning mosquito coils.
- Ask smokers to smoke outside.
- Avoid burning leaves and herbs to keep insects away.



BENEFITS OF REDUCING EXPOSURE TO BIOMASS SMOKE/HOUSEHOLD AIR POLLUTION.



BENEFITS OF REDUCING EXPOSURE TO BIOMASS SMOKE/HOUSEHOLD AIR POLLUTION.

Keeping your unborn and small children away from smoke has lifelong benefits;

- Healthy pregnancy.
- Healthy baby.
- Healthy child.
- Healthy adult.

