

The red meat consumer in South Africa: Do we meet the challenge?



Prof Hettie Schönfeldt
hettie.schonfeldt@up.ac.za



University of Pretoria

The South African Consumer

- Population of 46 million people
- Majority SA households live in poverty with limited food variety (mainly staples) available in the home

White maize porridge, brown bread, sugar, milk & tea

(NFCS, 1999)

- **30.9 %** preschool children stunted (Short for their age)

vs.

- **56.2%** of the adult population overweight or obese

(Demographic and Health Survey, 2003)

- Rapid urbanization and acculturation

Double burden of disease often evident within same households, and often even within the same individual



The South African Consumer

The SA population is classified according to **LSM** (Living standards measure) groups:

- A marketing research tool to gain better understanding of the socio-economic status of individual / group
- SA is segmented into 10 LSM groups (10 being the highest standard and 1 the lowest)
 - LSM is a multi-attribute segmentation tool
 - Based on access to services and durables, and geographic indicators as determinants of standard of living

• LIVING STANDARDS MEASURE •



LSM's are continually revised

2001 LSM[®]s



Old Variables Retained:

1. Electric Stove/Hotplate
2. Microwave Oven
3. Flush Toilet
4. No Domestic Worker
5. VCR
6. Vacuum Cleaner/Floor Polisher
7. Traditional Hut
8. 1/more Sedan Car
9. Washing Machine
10. TV Set
11. Home Telephone
12. Hi-Fi/Music Centre
13. Built-in Kitchen Sink
14. Hot Running Water
15. Fridge/Freezer

New Variables:

1. Deep Freezer
2. Water in Home/On Plot
3. MNET/DStv Subscription
4. Dishwasher
5. Electricity
6. Sewing Machine
7. Gauteng
8. Western Cape
9. No Cellphone in Household
10. PC in Home
11. Tumble Dryer
12. Less than two Radio Set in Household
13. Non-Urban outside GP/WC
14. Home Security Service

2011 LSM[®] Update



Variables Dropped (2)

- VCR
- Hi Fi

New Variables (2)

- Air Conditioner
- Swimming Pool

SAARF LSM[®] Extension

• LIVING STANDARDS MEASURE •



• LIVING STANDARDS MEASURE •



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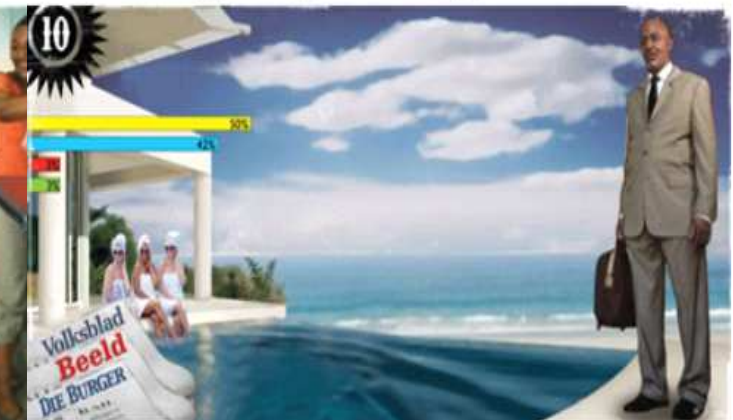
• LIVING STANDARDS MEASURE •



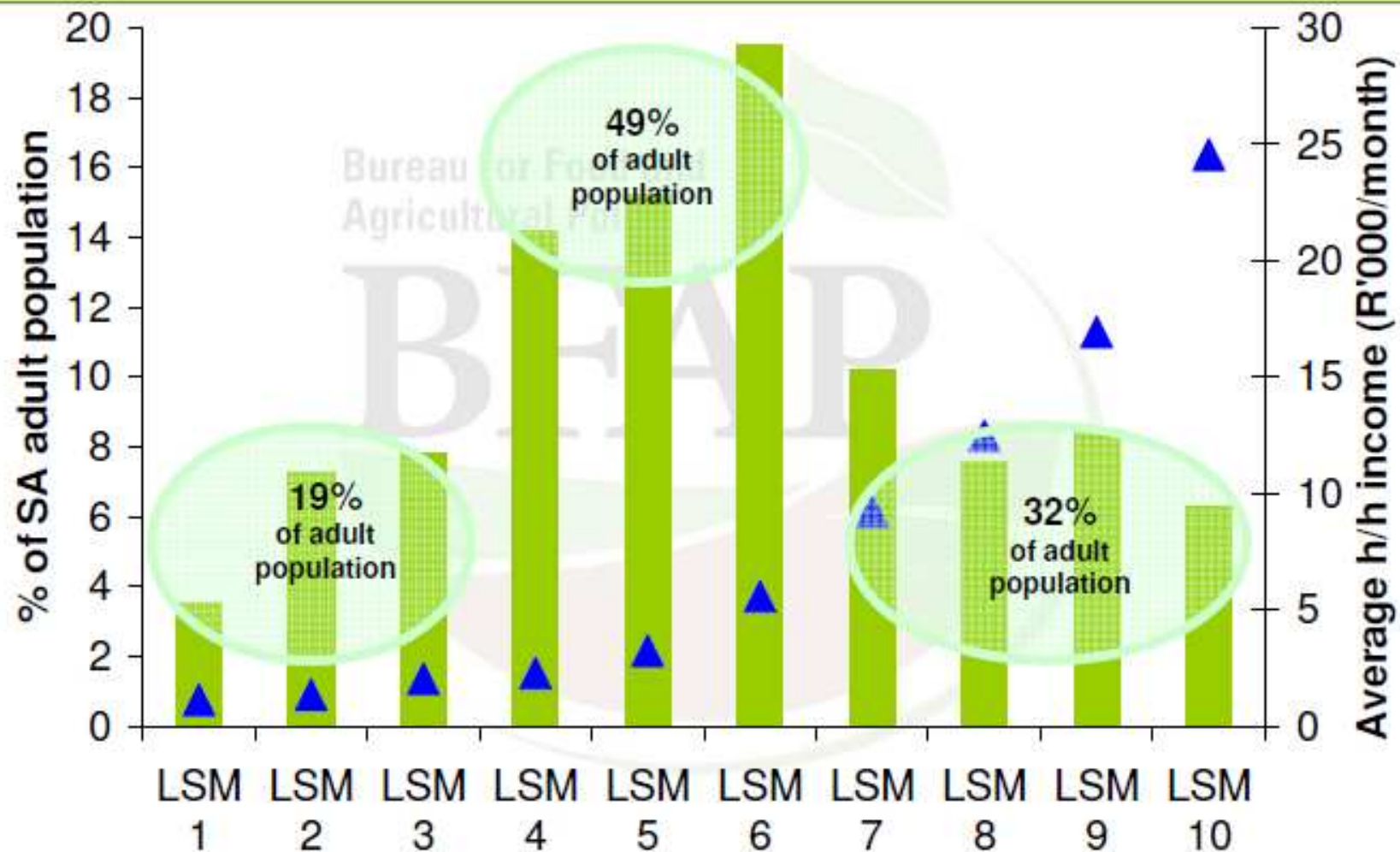
• LIVING STANDARDS MEASURE •



• LIVING STANDARDS MEASURE •



Introducing the SA consumer



■ % of SA Adult population ▲ Average monthly income (R'000)

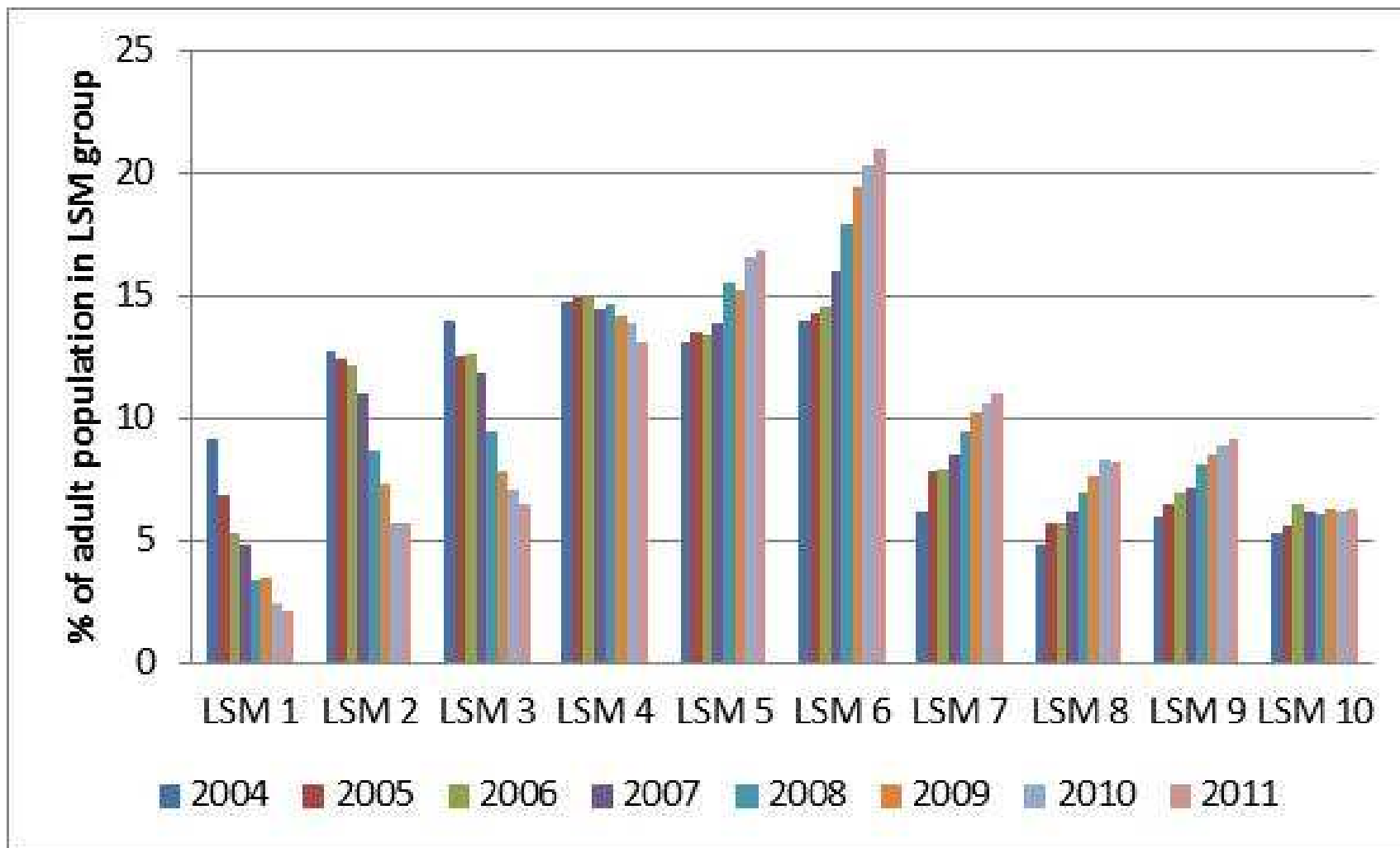


BUREAU FOR FOOD AND AGRICULTURAL POLICY



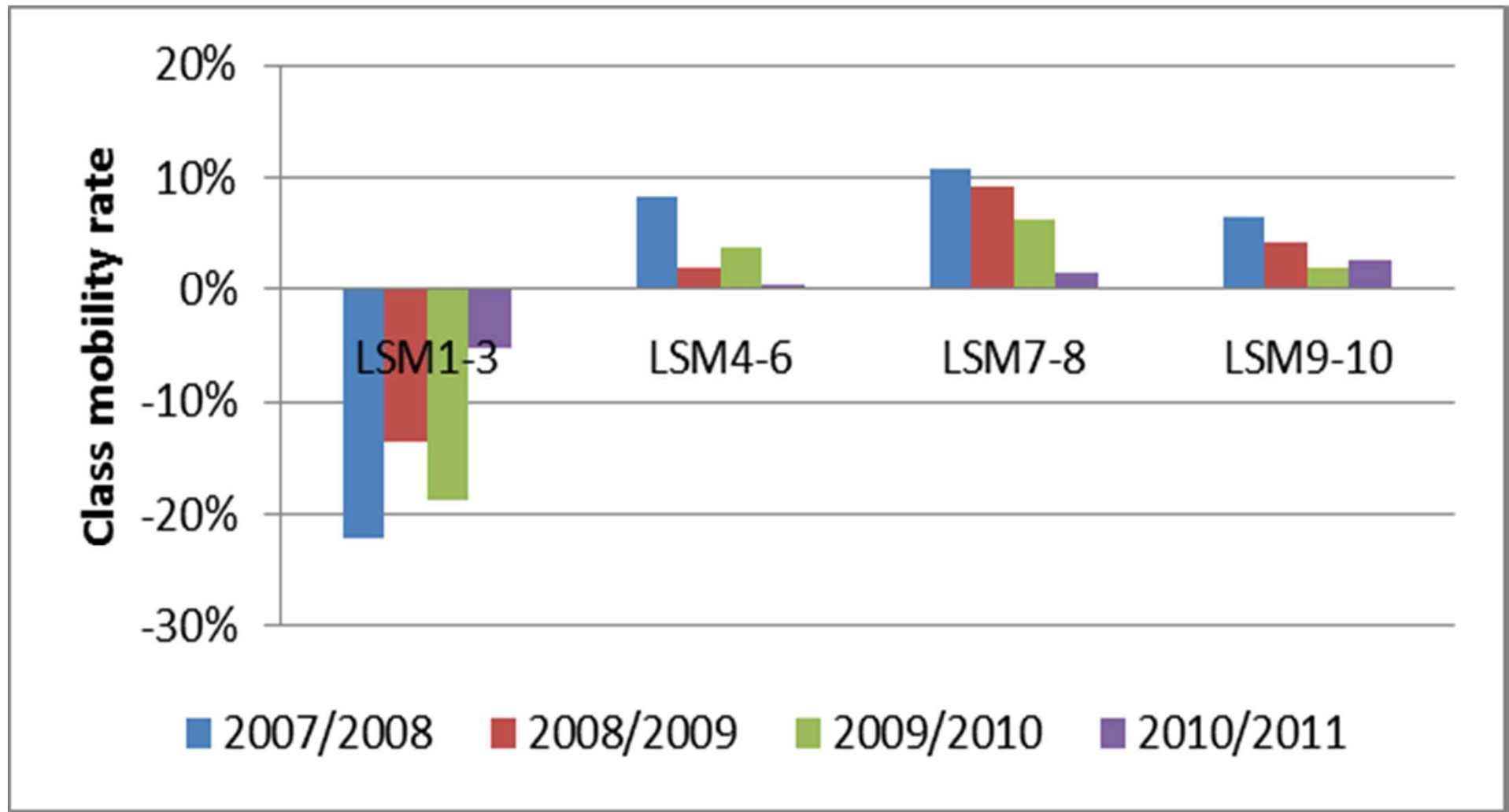
LSM class mobility: All adults

(SAARF AMPS; Vermeulen, 2012)

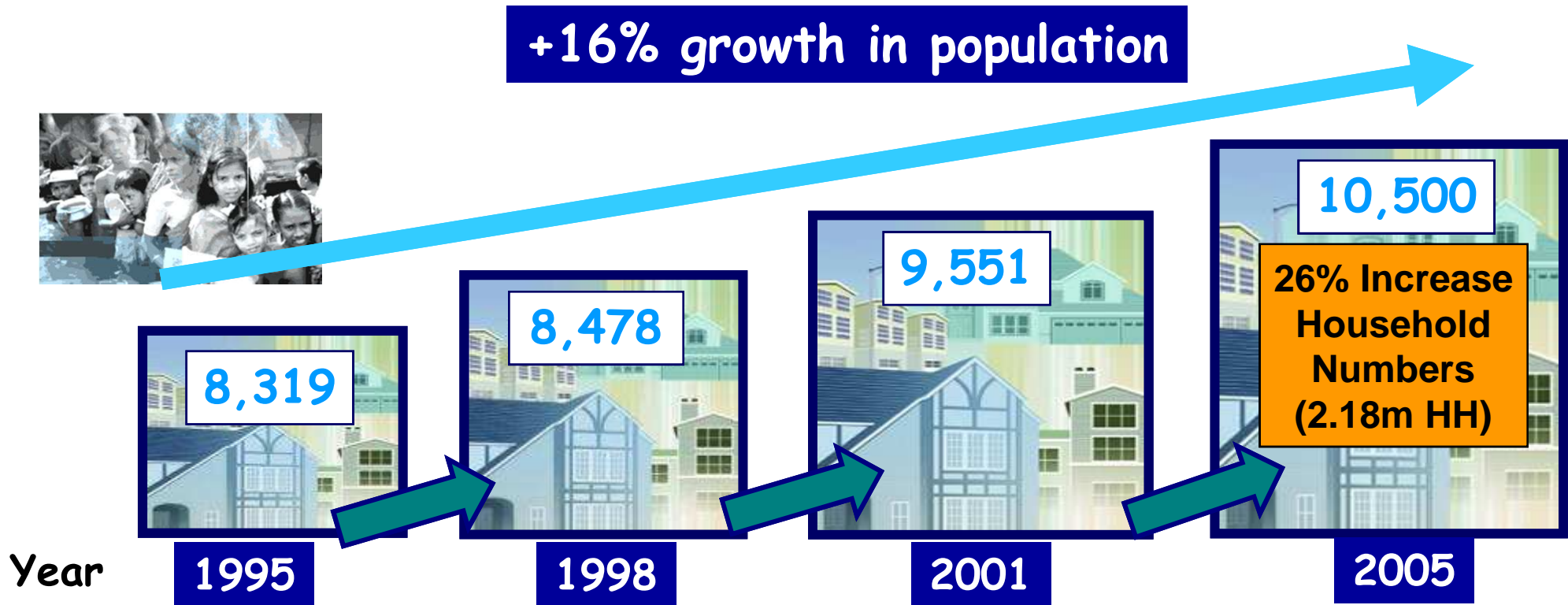


LSM class mobility rate: All adults

(SAARF AMPS; Vermeulen, 2012)



Household growth exceeds population growth

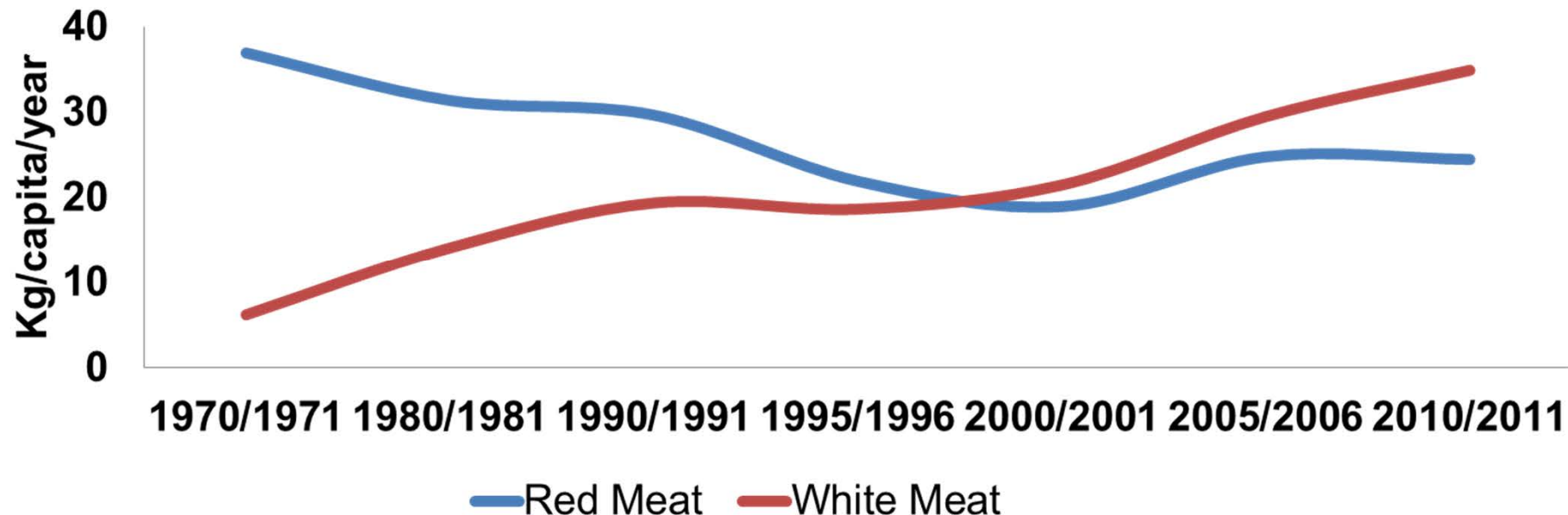


Meat consumption patterns

- Meat is a favourite and popular food in the diet
- However, the popularity of red meat is globally declining in favour of white meat and other non-meat proteins
- SA Consumption (per capita)

Red meat decreased and white meat increased

(Abstract of Agricultural Statistics, 2011)

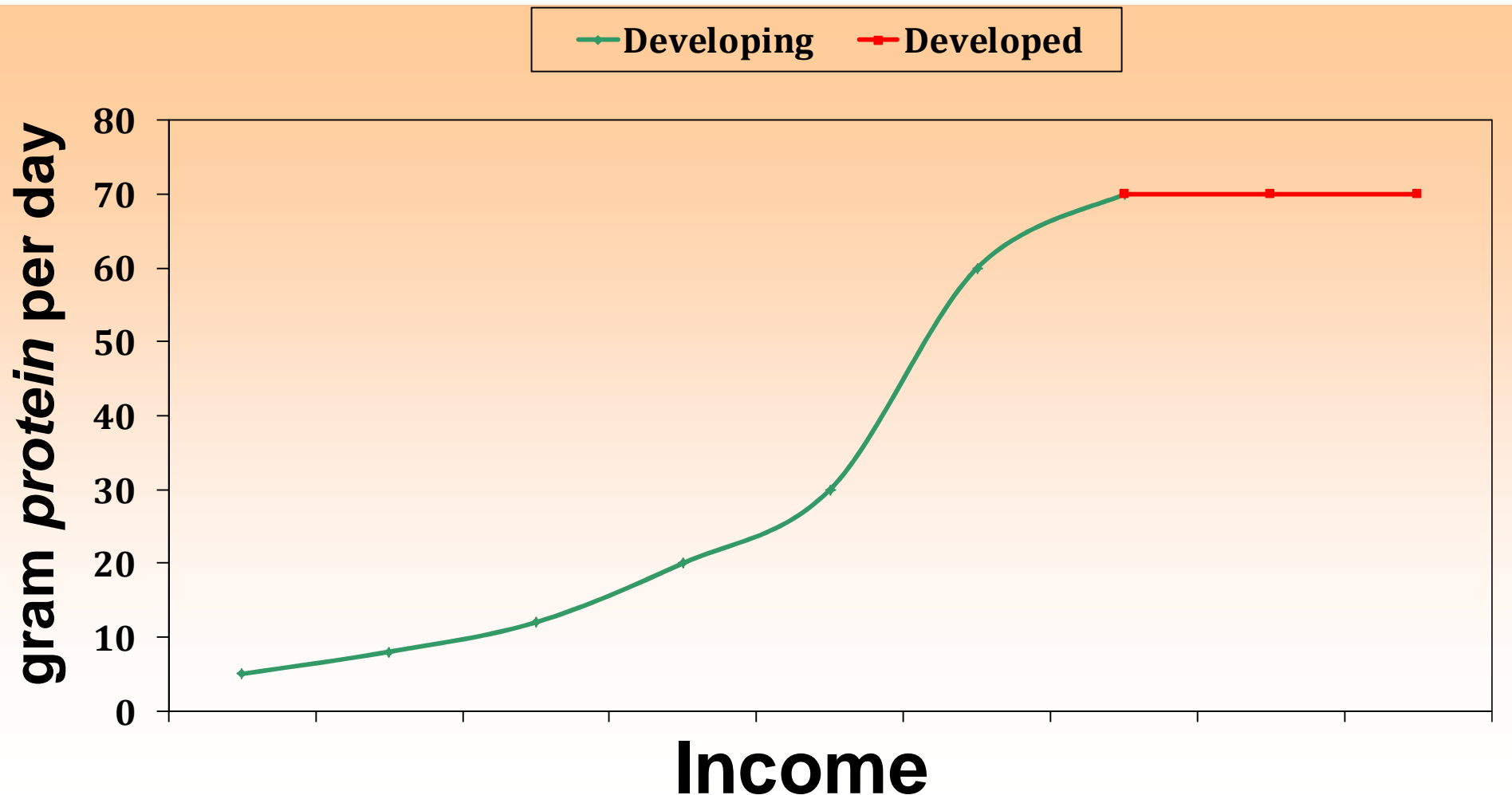


Meat consumption patterns

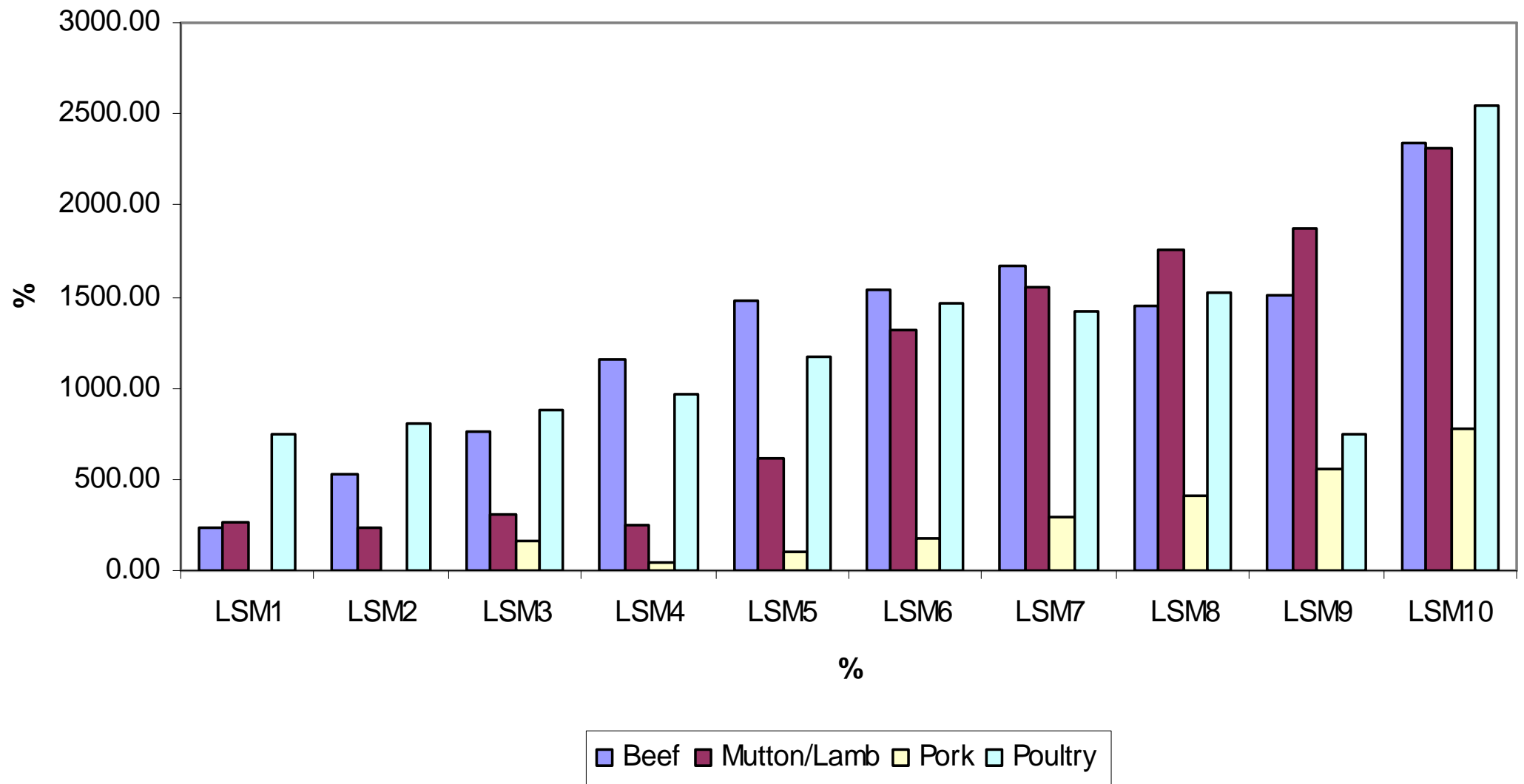
- **Price difference** contributes to this phenomenon
- **Perceived health risk** associated with the consumption of products considered to be **high in total and saturated fat**
- **Detrimental effects** on health such as increasing cholesterol levels and increasing health risk
- Concern about the link between **high saturated animal fat intake** and **CVD** as well as **certain types of cancers**

Global consumption of meat (developed vs. developing countries)

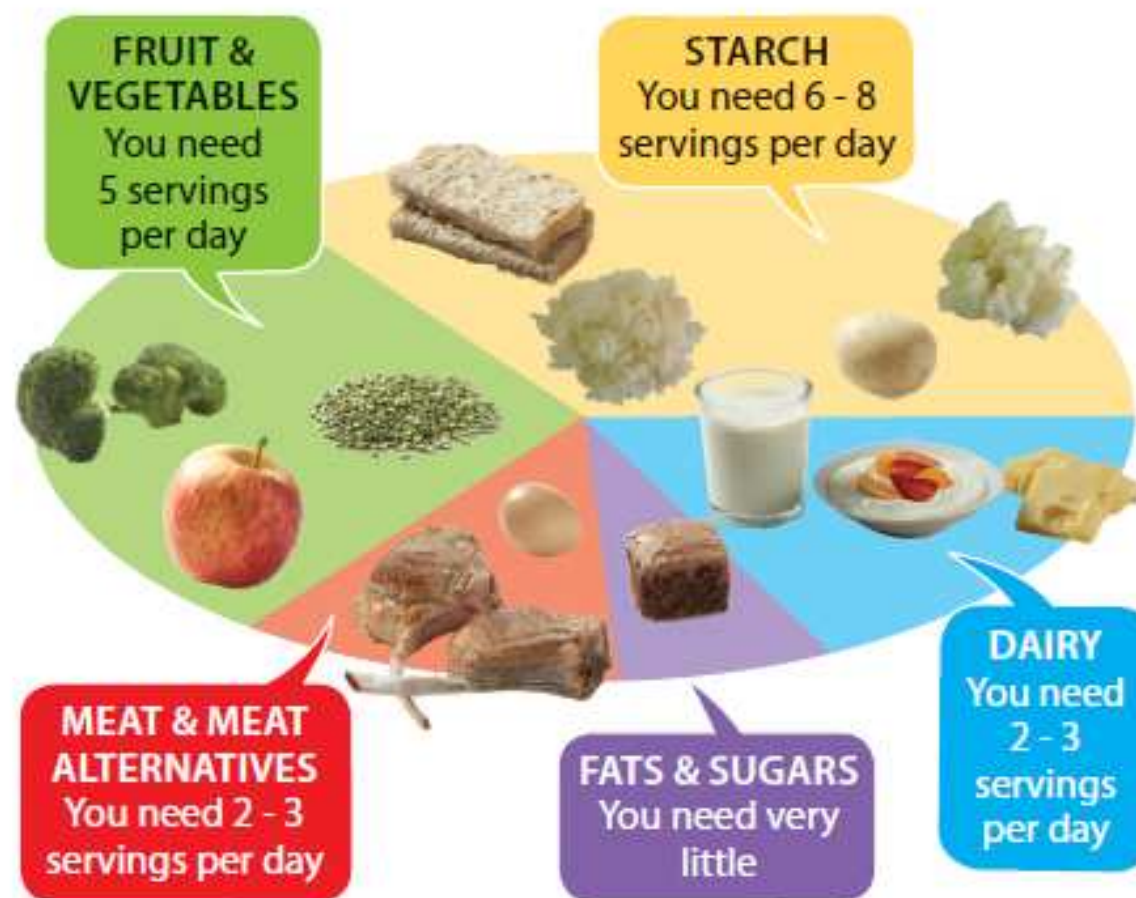
(Valin, 2000)



Estimated total annual cash expenditure on major meat products per household per LSM group (2005)

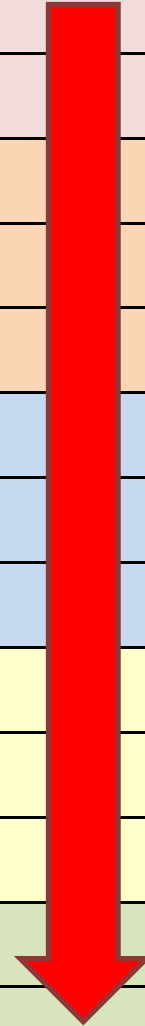


A healthy balanced diet



SOURCES OF PROTEIN (USDA, 2007)

One Serving		Protein amount (g)
Meat	85g beef, lean cooked	28
	85g chicken, cooked	26
Legumes	172g (1 cup) cooked soybeans	29
	196g (1 cup) boiled split peas	16
	1cup (256g) red kidney beans	13
Dairy	245 g (1 cup) milk	8
	28 g Cheddar cheese	7
	30g low fat cottage cheese	4
Starch & cereals	185g (1 cup) white rice	15
	219g (1 cup) oat bran	7
	25g (1 slice) whole wheat bread	3
Veg & Fruit	180g (1 cup) spinach	5
	1 (118g) banana	1



HOW MUCH *PROTEIN* DO WE NEED?

WHO Technical Report (2007)
g protein / kg body weight

Adults	0.66
Infants 1yr	1.14
Child 10yrs	0.91

Requirement does not
consider ethnicity, age,
gender, physical activity
or status of health



vs.



HOW MUCH DO WE NEED?

- An obese individual, in a first world country
 - Uses protein as energy source after reaching req prot intake
- An undernourished individual, in a developing country
 - Livelihood depends on survival through physical work
 - Animal sources are considered sign of affluence, not a food source
 - Cereal based diets, supplemented with plants
 - Availability of nutrients?



PROTEIN CONTENT: WESTERN DIET

(Hungry Planet)



BALANCED WESTERN DIET



>25g



>30g



>35g

**Total protein
content:
>90g**

PROTEIN CONTENT: DEVELOPING COUNTRY DIET

Marginal daily intake of South Africa's lowest income consumers



- 532 g maize meal porridge (stiff + crumble)
- 150g brown bread
- 56ml milk
- 22g sugar

PROTEIN CONTENT: DEVELOPING COUNTRY DIET



Brown bread 13.5g
Milk 1.85g
Maize meal 14.4g
Sugar 0g

Total protein in daily intake: 29.7g

Less than one meal in balanced western diet

South Africa

Consumption vs. Recommendations

Recommendation

- National Food-based Dietary Guidelines:
560g meat per person per week
= 80g per day
- South Africans often scrutinized for eating too much meat
 - No nationally representative food consumption survey

South Africa

Consumption vs. Recommendations

National Consumption based on various studies

(Steyn et al., 2006)

Food group		Summarised data from combined databases	
		Children 1-5y	Adults & Children 10+years
Meat ^a	g/day	45	86
Fish, seafood		7	12
Eggs		10	15

^a Value includes consumption of red and white meat, meat products and offal

South Africa

Consumption vs. Recommendations

Abstract of Agricultural Statistics, 2012*

Species	Raw carcass product / capita / year (kg)*	Raw meat / capita / day (g)	Yield factor# (edible part) (<i>Cooking loss, bone, waste</i>)	Actual consumption cooked product / day (g)
Beef + veal	17.07	46.77	±0.60	28.06
Pork	4.6	12.60	±0.60	7.56
Sheep + goat	2.9	7.95	±0.50	3.98
White meat	34.91	95.64	±0.40	38.26
Total Meat		162.96		77.86

Red meat
39.6g

#BFE, 2002

Constraints to data

Agricultural Production Statistics based on raw production, not actual consumption. Need to incorporate waste = Cooking loss, bone, plate loss, trimming etc.

The South African red meat consumer

Changes over time

- Increasing living standards
- Increase in household numbers, but decrease in people per household
- Increased prevalence of food trends
 - General trend towards white meat
 - Decreased intake of animal fats



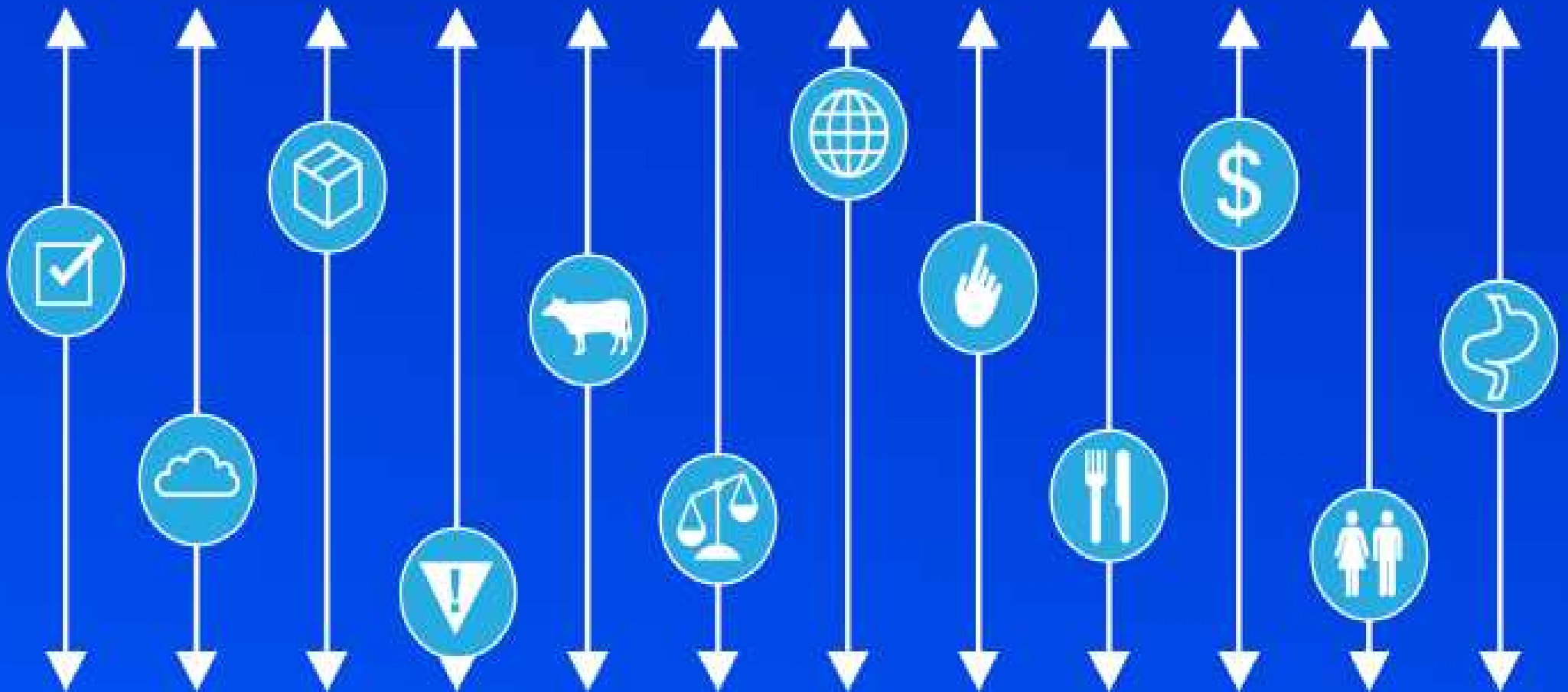
Top 10 Consumer Trend prediction for 2012

(Innova Market Insights)

1. Pure is the new Natural
2. Green is a given (Sustainability)
3. Location, location, location (traceability)
4. Premium stands out (premium or discount)
5. Senior draws attention (needs of an aging population)
6. 40 is the new 20 (successful aging)
7. Grounded in Science (Science based)
8. Regulators force a rethink (Legislation)
9. Immeasurable niches (Social networks, small groups & individuals)
10. Boom for protein

Historic Approach

International trends

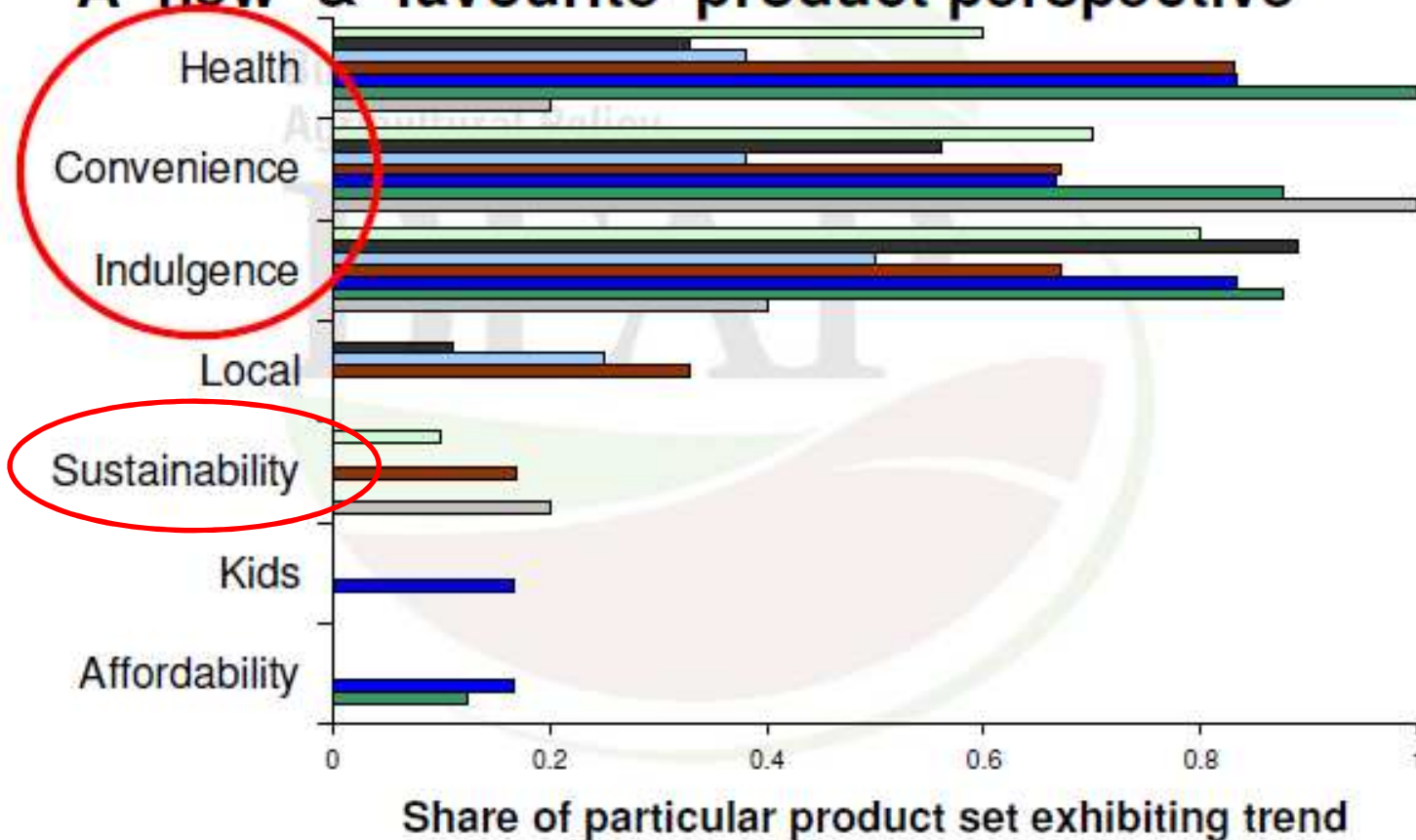


Emerging Nutrition Affairs Paradigm



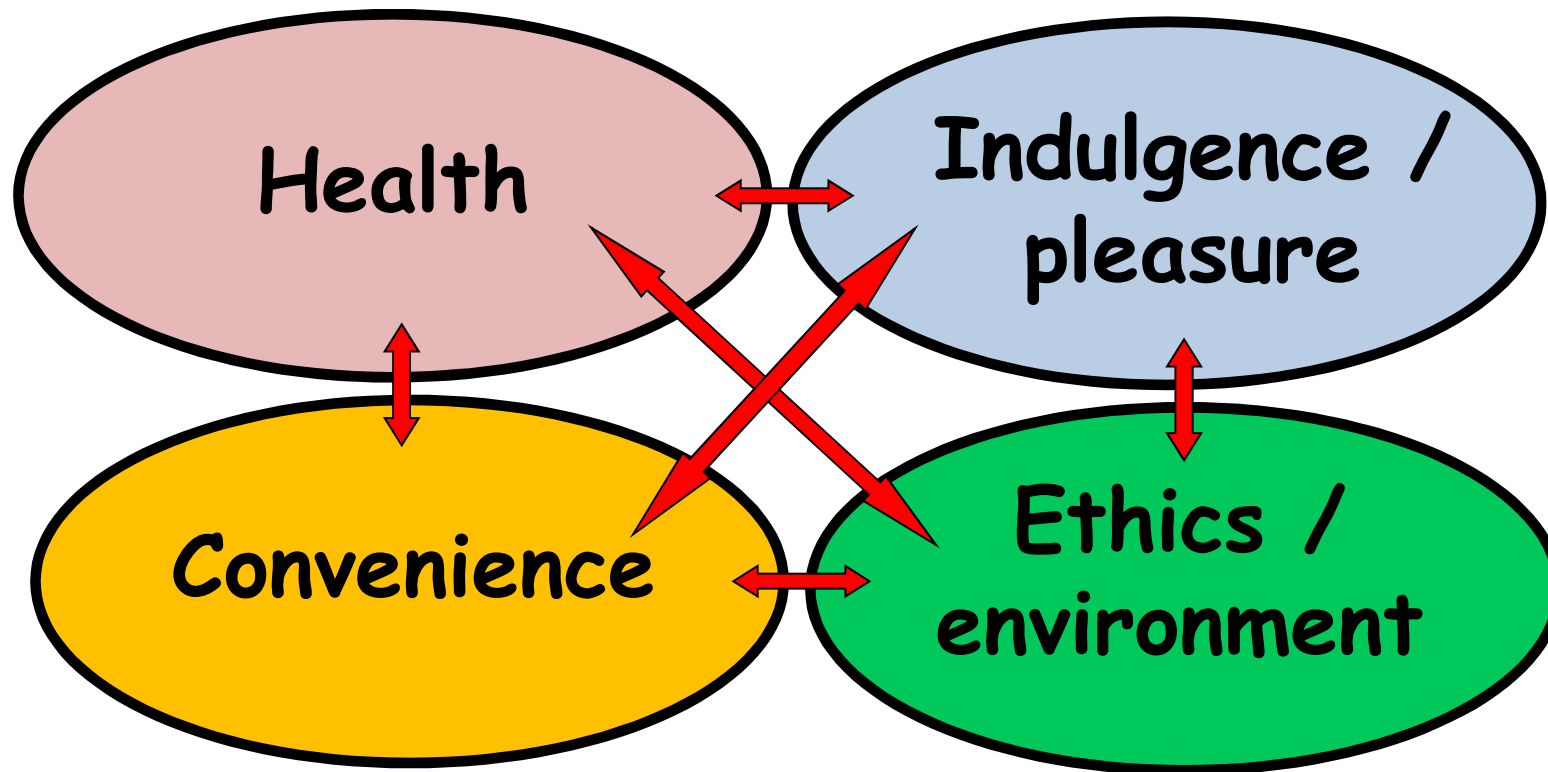
South African food trends (1)

Global trends reflected in the SA food sector
A 'new' & 'favourite' product perspective



International consumer food trends

Overlap:



Consumer food trends

Trend 1: Health

Prominent dimensions:

- General wellbeing
- Dieting
- Bioavailability
- Specific health issues
- Supplements

Reflected in...

- Natural
- Functional promises
(natural & 'plus' claims)
- 'Minus' claims



Consumer food trends

Trend 2: Convenience

- Time-pressed consumers
- Usually combined with health and/or indulgence

Prominent dimensions:

- Ready-meals
- Fragmented eating
- Children nutrition

Reflected in ...

- Product innovation
- Packaging innovation
- Distribution innovation



Consumer food trends

Trend 3: Indulgence

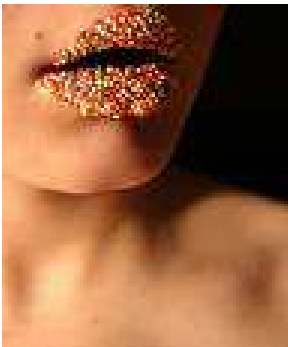
•Excitement, diversity, sophistication

Prominent dimensions:

- Product presentation
- Taste, flavour
- Culture foods
- Ethnic foods

Reflected in ...

- Product & packaging
- Labeling
- Novel ingredients –wild and underutilized foods
- Novel combinations
- Texture
- ‘Culture’ foods



Consumer food trends

Trend 4: Going 'green'

- **Environmental sustainability**
- **Social sustainability**
- **Less important globally**
- **For example:**
 - ✓ **Organic**
 - ✓ **Free range**
 - ✓ **Fair trade**
 - ✓ **Food miles**
 - ✓ **Carbon footprint**
 - ✓ **Biodiversity**

Reflected in ...

- **Local**
- **Seasonal**
- **Traditional**
- **Credence values**



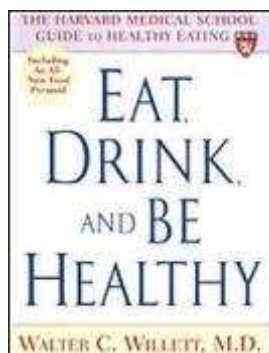
COMPASSION
in world farming



GOOD EGG
AWARD

EDUCATING THE CONSUMER

- Consumers are uncertain about **who** and **what** to believe regarding diet
- Media exposure – mixed messages
- General belief amongst consumers that:
 - Red meat contributes towards obesity and other lifestyle diseases
 - Red meats are difficult to prepare & inconvenient
 - The red meat industry is not environmentally friendly



Red meat linked to breast cancer

April 4, 2007

Eating even small amounts of red meat can greatly increase a woman's risk of breast cancer according to a study published today.



**Feeding kids
meat is
child abuse**

FIGHT THE FAT • GO VEG PETA.org.uk



RECOMMENDATIONS	
BODY FATNESS	Be as lean as possible within the normal range of body weight
PHYSICAL ACTIVITY	Be physically active as part of everyday life
FOODS AND DRINKS THAT PROMOTE WEIGHT GAIN	Limit consumption of energy-dense foods Avoid sugary drinks
PLANT FOODS	Eat mostly foods of plant origin
ANIMAL FOODS	Limit intake of red meat and avoid processed meat
ALCOHOLIC DRINKS	Limit alcoholic drinks
PRESERVATION, PROCESSING, PREPARATION	Limit consumption of salt Avoid mouldy cereals (grains) or pulses (legumes)
DIETARY SUPPLEMENTS	Aim to meet nutritional needs through diet alone
Motivation	fed
Follow	ntion



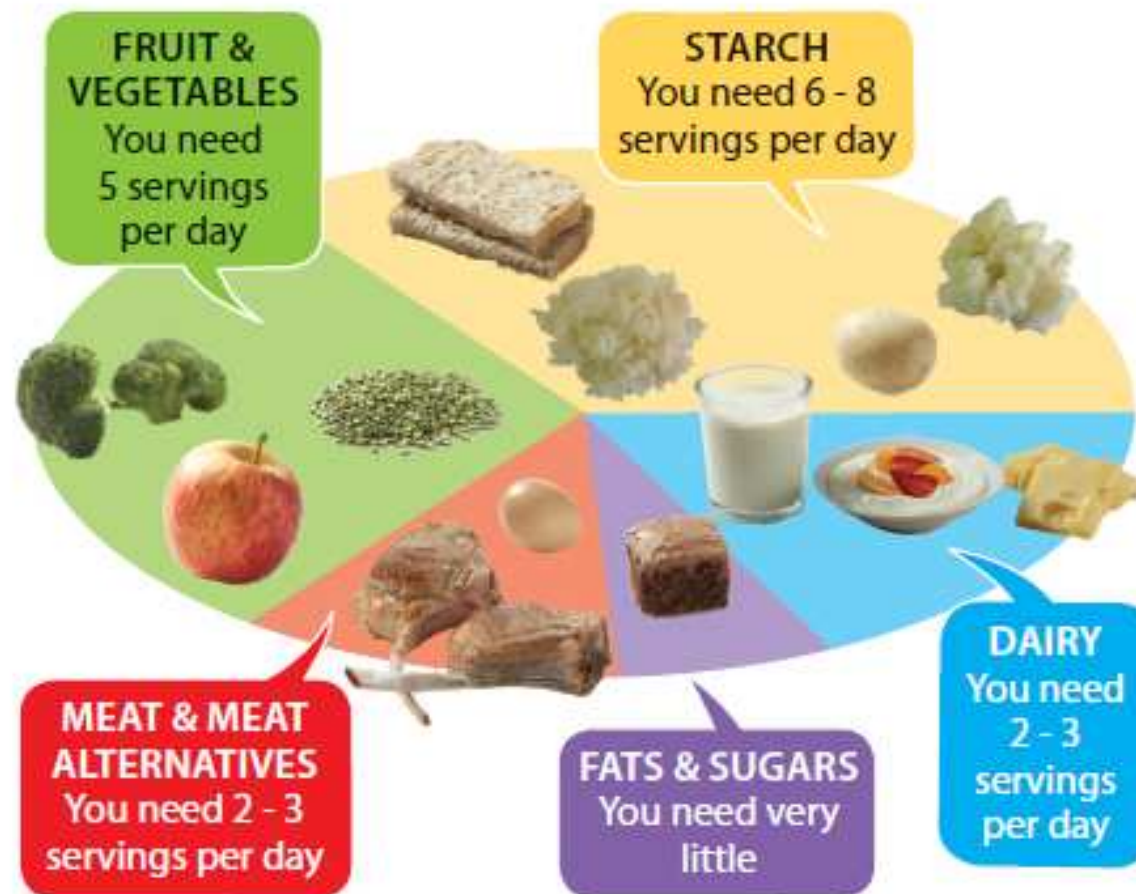
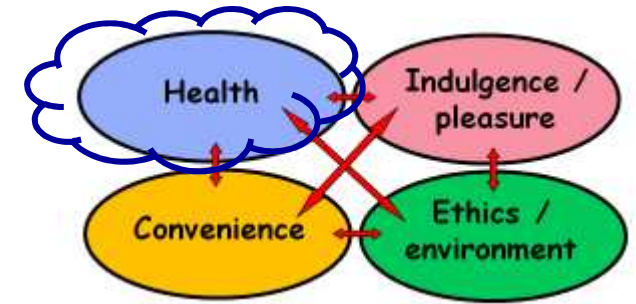
How YOU CAN Lose Weight Naturally

I turned Vegan May 7, 2007! It wasn't difficult to give up animal products. Yes ~ that's all meat, milk, eggs, cheese, yogurt, ice cream, soup broths, etc.

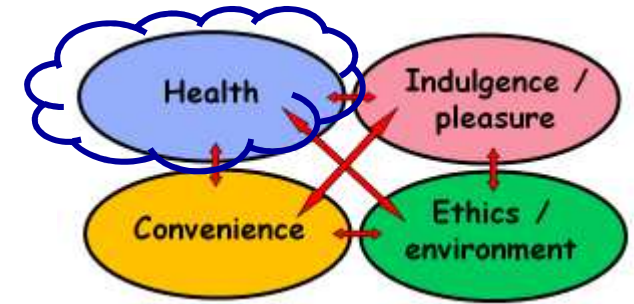


MEAT IS
obesity, heart disease, food poisoning
infertility, diverticulitis, colon cancer, IBS, diabetes, kidney stones, alzheimers, impotence and more...
www.MeetYourMeat.com

Red meat as part of a healthy, balanced diet



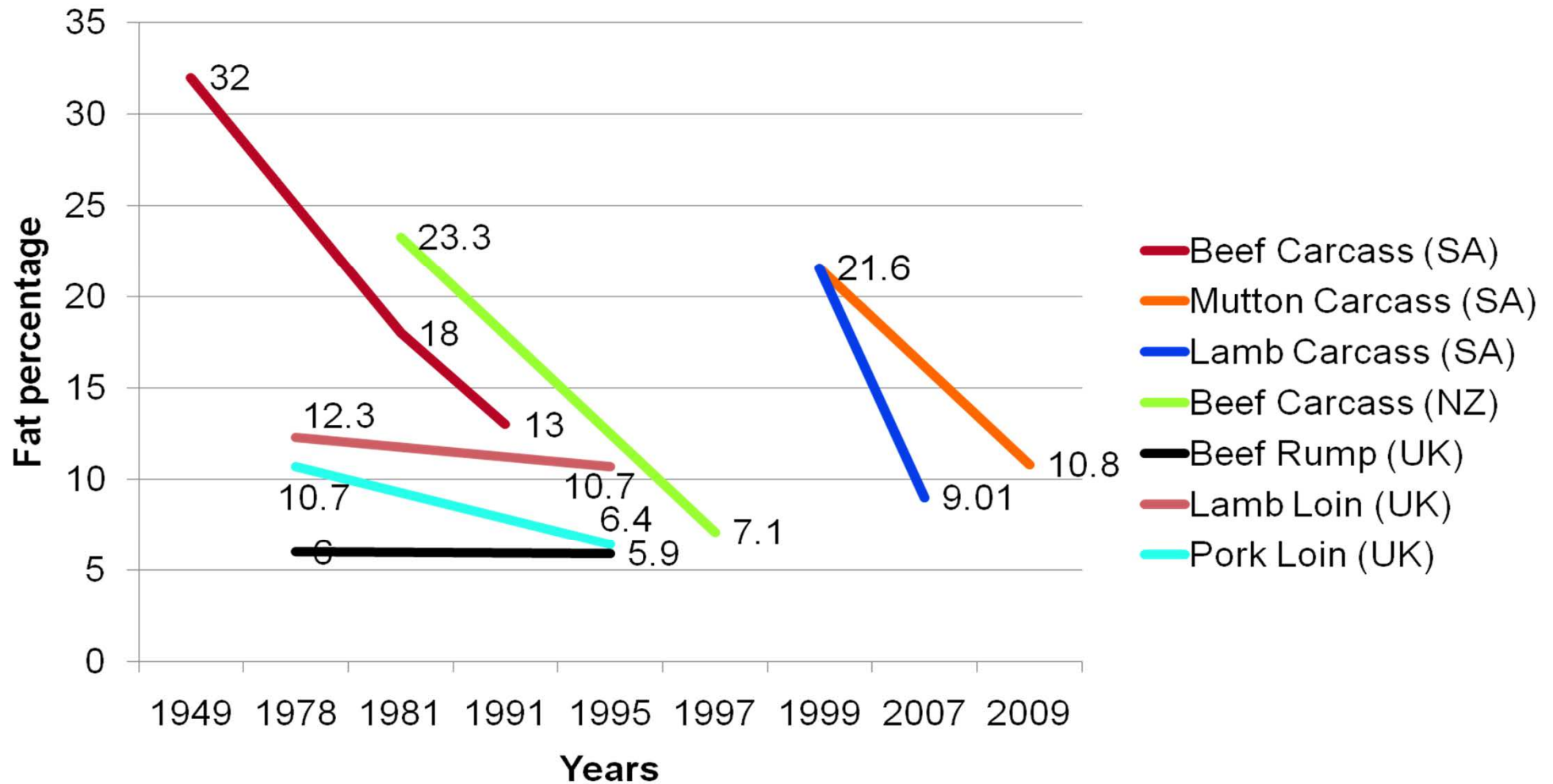
Red meat as part of a healthy, balanced diet



- In terms of the South Africa population:
 - Obesity:
 - 56.2% of the adult population overweight or obese
 - 9.3% of children (Demographic and Health Survey, 2003)
 - Undernutrition
 - 30.9 % preschool children stunted (Short for their age)
 - 1/2 children consume \leq half the RDA for vit A, vit B2, B3, B6, folic acid, calcium, iron & zinc (NFCS, 1999)
 - Poor Vit A status: 2/3 children & 1/4 women
 - Poor iron status: 1/7 children & 1/5 women
 - Inadequate zinc status: 45% of children (NFCS, 2005)



Global decreases in fat content of meats observed over time



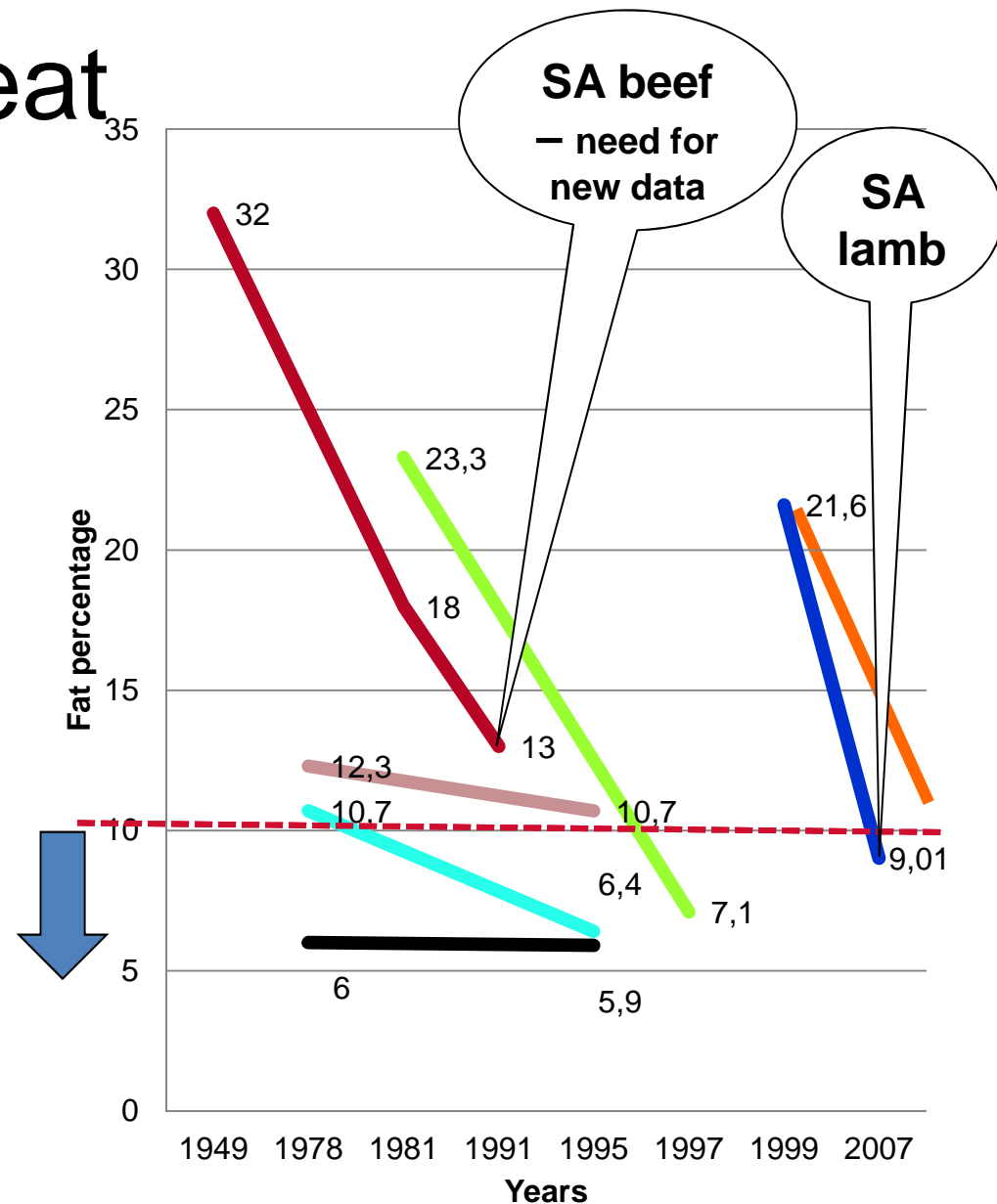
Implication of reduction in fat content of red meat

The **Heart Foundation** and **Cancer Foundation** states that the fat content of food products consumed should be less than 10%

The implication:

Many meats, according to recent composition data, in fact lies within the recommended fat range

Due to breeding, slaughtering and preparation

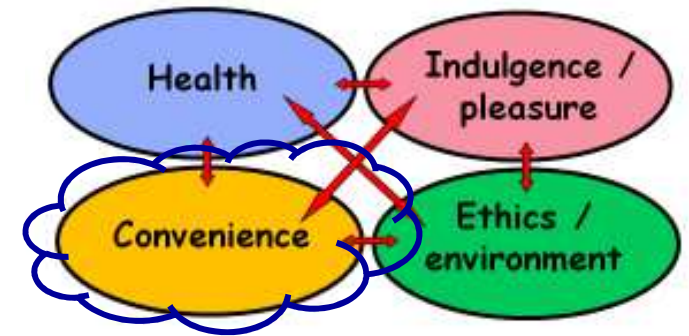


In terms of *undernutrition*:

Red meat is a nutrient dense food

- Meat is an excellent source of **protein** containing all the essential amino acids
- Good source of many **vitamins & minerals**
e.g. iron, zinc and the B-vitamins
- In leaner meat the nutrient content is higher, as fat dilutes the nutrients in the protein matrix
- With the high prevalence of nutritional deficiencies, the **higher percentage of nutrients** in lean red meat, increases the positive health image due to consumption

Red meat as part of a convenient lifestyle



Lamb- & mutton

The perfect cut for every occasion!



Everything you always wanted to know about **meat**

Did you know?

Recent studies on South African (lamb) and mutton have shown that it contains much less fat than previously thought. Three to four times a week.

Cutting down on fat

- South African lamb and mutton contains on average less than 10% fat and should be included as part of a well-balanced diet.
- Lean red meat, like lamb or mutton (80-90 g), can be eaten three to four times a week.
- Ask your butcher for a lean cut or select a meat cut with little visible fat.
- Trim the excess visible fat off the meat before cooking.
- Replace a tomato-based basting sauce with a herb-based one.
- Avoid adding extra fat or oil while broiling meat.
- Broil meat on a metal rack above a roasting tin, so that the fat can drip off.

Cooking meat safely

- Whole cuts of lamb, mutton and beef can be consumed when they are still pink or rare.
- Precooked meat products, such as sausages, burgers, kebabs and lamb chops, must be left to cook until the juices run clear.

Storing meat safely

- Store raw meat in sealed containers on the bottom shelf of the fridge, so that it cannot touch or drip onto other food.
- Cooked meat in the container must be eaten or reheated within 24 hours.
- When storing cooked meat, cool it and refrigerate or refreeze as soon as possible.

Thawing raw meat

- Only eat meat in the microwave if you intend cooking it immediately.
- Thaw frozen meat overnight in the fridge to prevent it getting too warm.
- Refrigerate raw meat in a sealed container or if it does not touch or drip onto other food.
- Reheat meat thoroughly if well-cooked.
- Do not reheat meat more than once.

Cocktail lamb burgers

Portions

- 1 slice white or brown bread
- 80 ml (1/4 cup) milk
- 1 medium onion, peeled and finely chopped
- 2 cloves garlic, crushed (optional)
- 20 ml (2 Tbsp) chopped fresh dill or 10 ml (2 Tsp) salted dill
- 100 g lamb mince (from bone-in leg)
- cooking oil for frying

Assembly

- 1. Portion: Soak bread in milk, then together with remaining onion, garlic and dill, shape into 12 round patties.
- 2. Heat oil in a heavy-based frying pan and fry patties for 4-5 minutes on each side.
- 3. Assemble: Layer on the base cheese and lettuce, tomato, dressing over. Cook with top of rolls and serve with your favourite sauce.

Makes 12 cocktail burgers

Variation

Substitute any other meat or any other bread of choice.

Know more about meat

Boned and butterflied blade

About 900 g lamb blade, boned

Roasting

- 10 ml (2 Tsp) dill, chopped
- 2 cloves garlic, crushed
- 80 ml (1/4 cup) fresh lemon juice
- 120 ml (1/2 cup) olive oil
- 10 ml (2 Tsp) salt
- 10 ml (2 Tsp) black pepper
- 10 ml (2 Tsp) fresh dill
- 10 ml (2 Tsp) fresh dill

1. Trim excess fat from lamb.

2. Place the blade on a rack in a preheated oven at 150 °C for 20-25 minutes per 500 g, plus an additional 20 minutes for medium-rare.

3. Basting: Mix all ingredients together and baste lamb frequently during roasting.

4. Remove from pan and leave in a warm place for about 10 minutes before serving.

Serves 4-6

Variation

Substitute the blade with any of the following.

Lamb & mutton

the perfect cut!

Different cuts, terminology and price all need to be taken into consideration



www.healthymeat.co.za

Sponsored by the Red Meat Industry of South Africa

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Red meat as part of a convenient lifestyle

Meat species is rarely the main driver of purchase



Which meat species am I going to buy?



Which cut?



What meal to prepare?



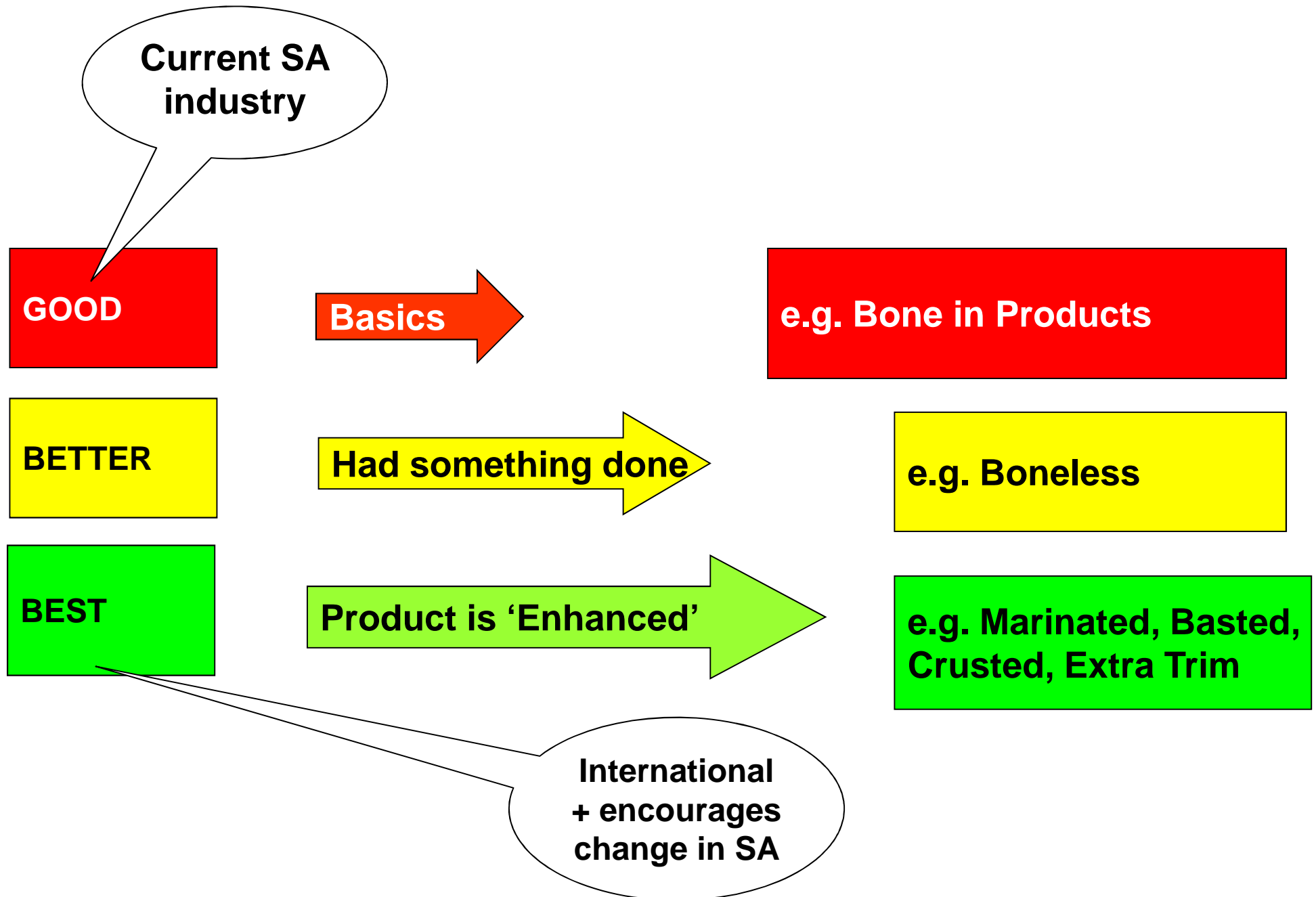
What is the meal occasion?



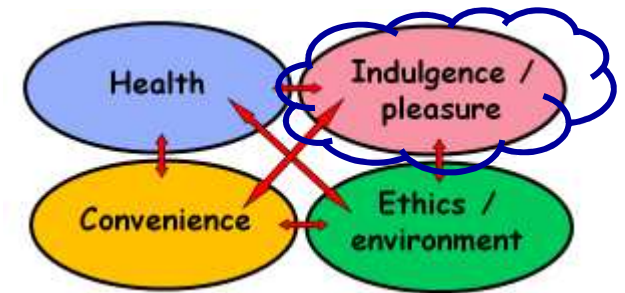
Which cut?



Which species?



Red meat as an indulgence / pleasure



South African lamb and mutton intended

Enjoy

South African lamb and mutton

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Red Meat Industry of South Africa

Benefits of South African lamb and mutton

- ✓ Lamb contains less than 10% fat and could be included as part of a well-balanced diet
- ✓ 100g of cooked lamb and mutton is a healthy choice and can be eaten 3-4 times a week
- ✓ South Africa is naturally produced
- ✓ Lamb and mutton is a natural source of CLA
- ✓ CLA protects the body from cancer and heart disease and reduces cholesterol levels
- ✓ Lamb and mutton is a good source of protein
- ✓ CLA and mutton is a source of high quality protein, contributing all the essential amino acids necessary for optimum body functioning
- ✓ Protein in the diet is associated with increased muscle mass which aids in weight management
- ✓ The minerals and vitamins in SA lamb and mutton contribute significantly to the overall health of the individual's daily nutrient needs

Lamb satays with peanut sauce

1 kg boneless leg of lamb
8 skewers or bamboo skewers

Ingredients:

- 500 ml (2 cups) peanut oil
- 10 ml (2 tsp) light soy sauce
- 15 ml (1 tbsp) chili paste
- 100 ml (1 cup) peanut butter
- 10 ml (2 tsp) chili paste
- 10 ml (2 tsp) chili paste
- 10 ml (2 tsp) chili paste
- 10 ml (2 tsp) chili paste
- 10 ml (2 tsp) chili paste
- 10 ml (2 tsp) chili paste

Butterflied leg of lamb with herb basting

About 1.5 - 2 kg leg of lamb

Ingredients:

- 100 ml (2 cups) olive oil
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine
- 100 ml (2 cups) white wine

Variation

Substitute lamb with other meats or vegetables with other herbs of choice.

Enjoy

South African lamb and mutton

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Red Meat Industry of South Africa

Red meat as an indulgence / pleasure

Increased consumer trend towards:

- Sense of simplicity
 - Back-to-basics is becoming an indulgence
 - Natural ingredients
 - Clean label foods
 - More natural ingredients
 - Continue to cook at home
- Authenticity & region specific
 - Not just enough to regionally position, but also based on ingredients from that region
- Increased trend for new and exotic flavors

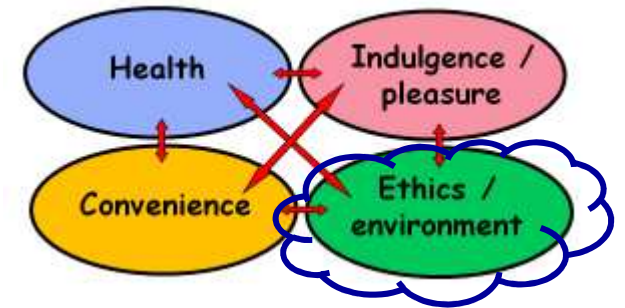


Indulgence

- Hand made
- Raw added value
- Stuffed & marinades
- Extra matured
- Special occasion
- Treat



Red meat as a ethical choice

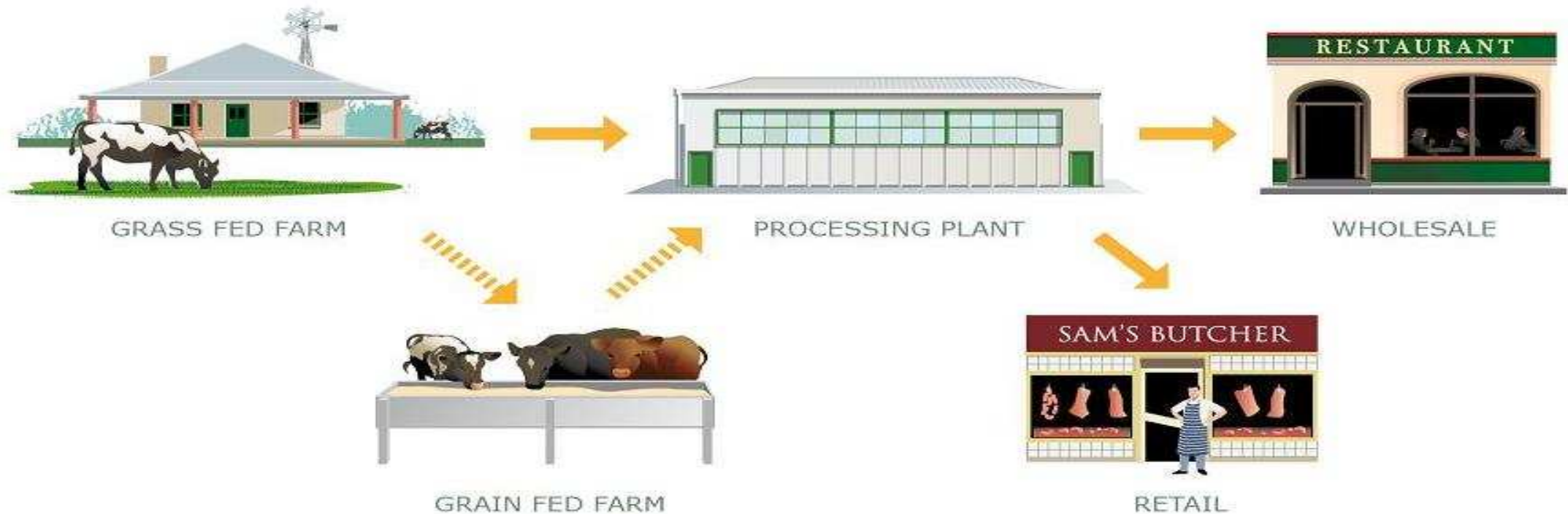


Red meat as a ethical choice

People are increasingly becoming nostalgic about simpler times & remain environmentally conscious

- Not yet as prominent in SA as the other trends
- Sustainable gather-systems
 - Locally sourced
 - More sustainable
 - Fairly traded
 - Carbon footprints
- “Free from”
- Naturally produced
- Hormone free – linked to health trend
- Limited industry involvement in terms of ethics

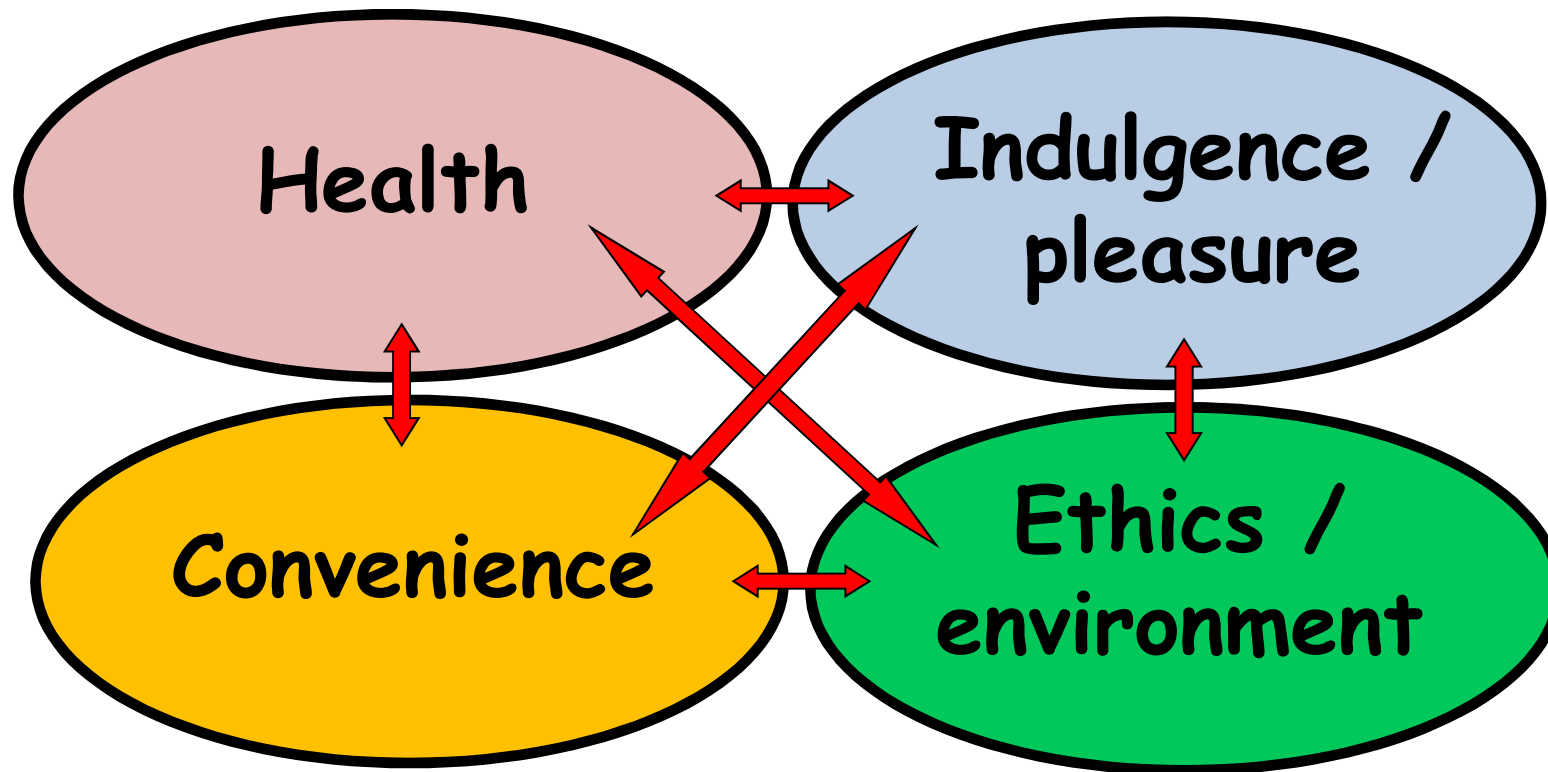
AIM: LOWEST POSSIBLE CARBON FOOTPRINT



- >80% of SA lamb and mutton are exclusively grass fed and roam free
- >60% of SA beef are produced on natural or cultivated pastures

South African red meat:

A healthy option to satisfy the needs of the modern consumer



Thank you



Prof Hettie Schönfeldt

hettie.schonfeldt@up.ac.za

Faculty of Natural and Agricultural Sciences