PATOLOGIE EMERGENTI NEI PAESI IN VIA DI SVILUPPO: OBESITA' E DIABETE

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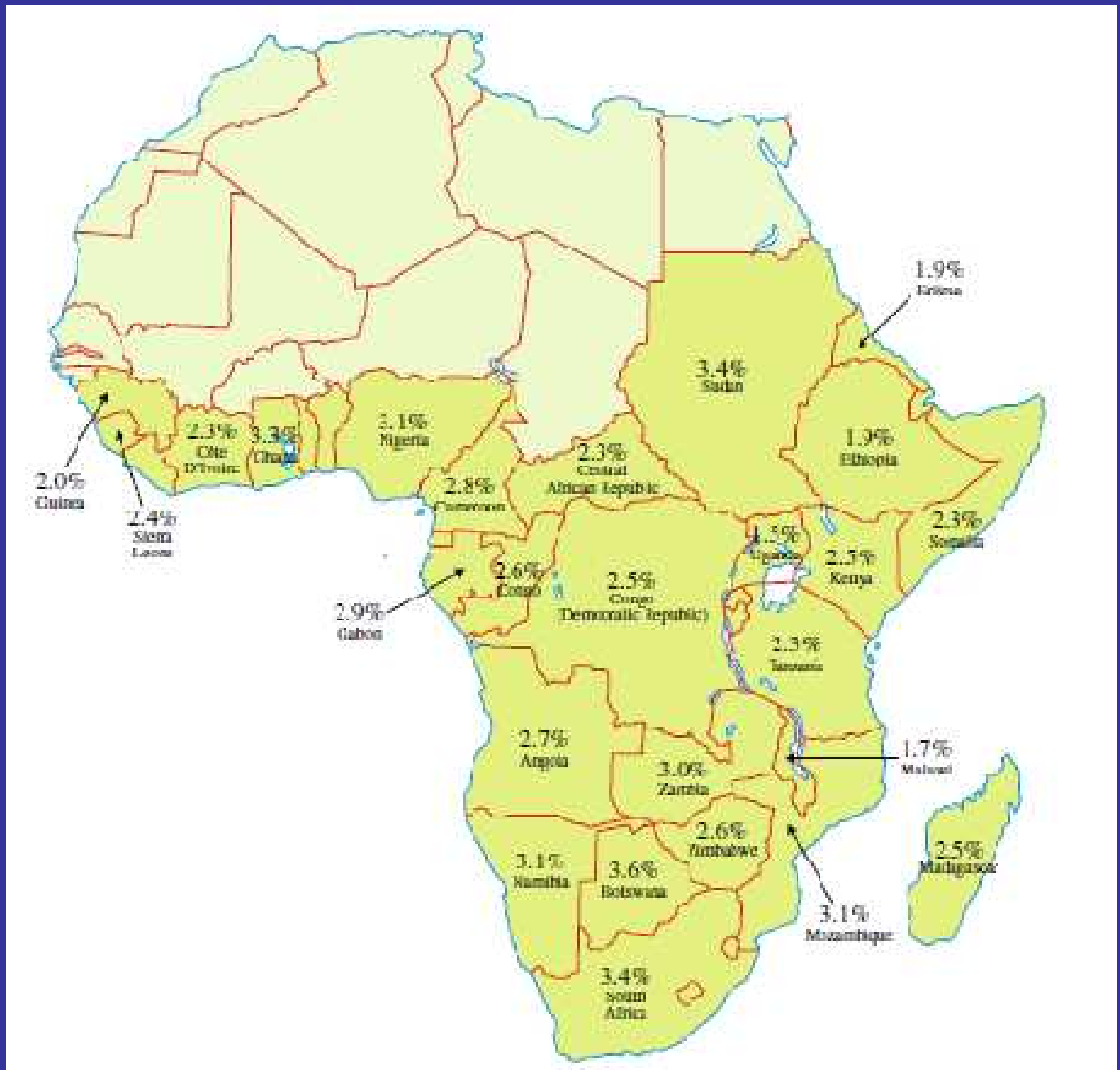
the African scenario

- The burden of non-communicable diseases in Africa is already proportionately greater than that in Western countries
- The diabetes care delivery agenda in Africa is dominated by poverty, especially in sub-Saharan Africa, where 33 outof the 40 (82%) of the world's most heavily indebted poor countries are situated
- Also, in the African continent, diabetes management costs have to compete with health issues such as anti-retroviral drugs, tuberculosis treatment and malarial control programmes

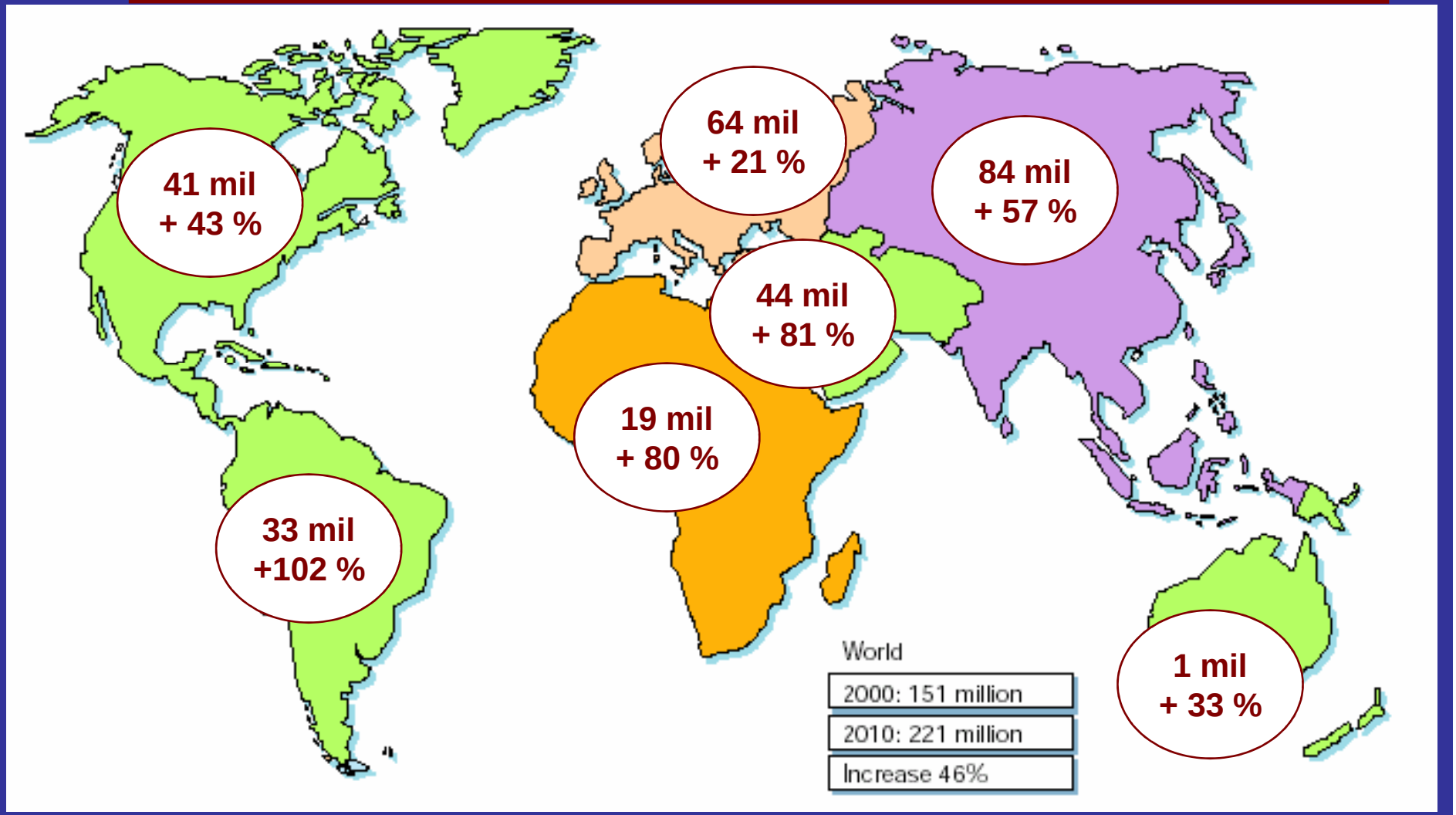
Epidemiological issues in African diabetes

- Overall prevalence 2–3%, but wide variation. Higher rates in:
  - –urban areas
  - –Asian immigrants
  - –North Africa
- Low incidence of type 1 diabetes
- Malnutrition-related diabetes
- Atypical 'ketosis-prone' diabetes

Prevalence of the disease according to IDF

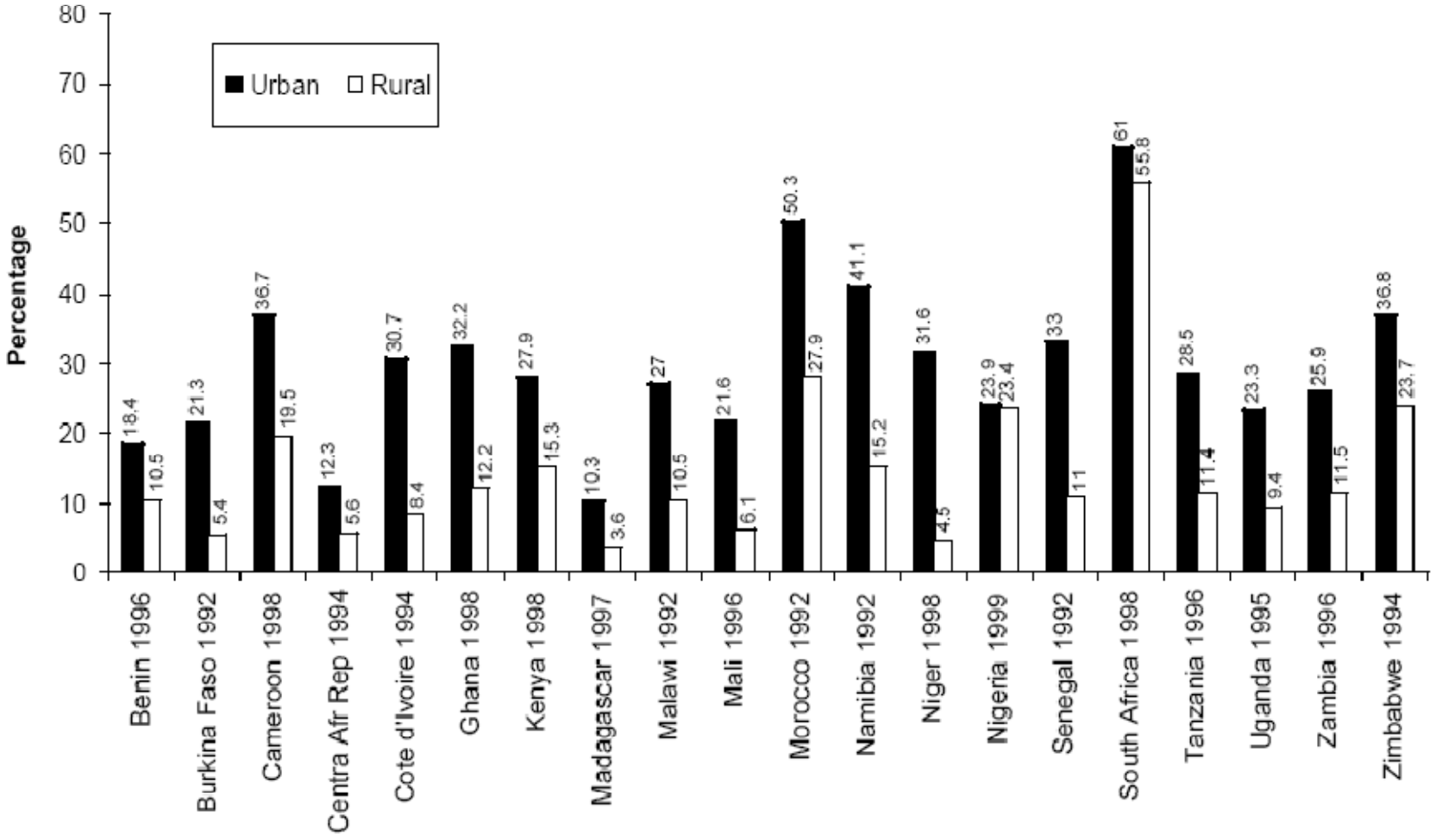


World wide epidemic



Zimmet, Nature 2001

Prevalence of overweight in urban and rural areas of Sub-Saharian Africa in women 20-49 years old



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Factors influencing diabetes in Africa

1. : Urbanizzation

- There continues to be an increasing number of people moving into urban areas from rural environments, particularly in sub-Saharan Africa
- This migration is inevitably associated with a shift in lifestyle from a relatively healthy traditional pattern, to the urban scenario of increased food quantity and reduced quality, low levels of exercise, smoking and increased alcohol availability
- This rapid and dramatic epidemiological transition is driving the emergence of high and increasing prevalence rates of type 2 diabetes and hypertension with growing mortality implications

Factors influencing diabetes in Africa

2.: The “thrifty gene” hypothesis

- **This hypothesis suggests that certain subjects or ethnic groups are able to store energy during periods of famine or shortage of food.**
- **Thus they tend towards obesity and other metabolic disorders during periods of abundance.**
- **In the past, this genotype has helped these subjects survive periods of famine.**
- **Nowadays with the consumption of high fat, high carbohydrate food, low fiber diets and relative inactivity this genotype is no longer beneficial.**

Factors influencing diabetes in Africa

3.: Lack of consistent data

- Good epidemiological studies are difficult in sub-Saharan Africa; they are expensive, labour intensive and populations are often mobile and poorly enumerated.
- the epidemiology of this disease and care systems in place for its treatment are very different in Africa from those in Western countries.

Problems and barriers identified by WHO

- Lack of organisational structure for chronic disease care
- Minimal staffing and training provided to healthcare workers in the field, and a lack of resources
- Minimal communication with the public to address preventative strategies
- Non-existence of organised healthcare information systems
- Because of the low doctor:patient ratio, short consultation times and limited or no time for educating patients
- Unaffordable medicines and other resources
- Inequality in the distribution of healthcare facilities
- Non-existent diabetes multidisciplinary healthcare teams
- Lack of national policies

Care inadequacies particularly in relation to diabetes

- Poor patient attendance at clinics
- Because of the low doctor:patient ratio, short consultation times and limited or no time for educating patients
- A lack of evaluation and monitoring for the complications of diabetes
- Non-existent or inadequate referral systems
- Poor organisation of services
- Poor record keeping/information technology
- Lack of infrastructure to support services
- Unaffordable medicines and other resources
- Inequality in the distribution of healthcare facilities
- Non-existent diabetes multidisciplinary healthcare teams
- Lack of national policies

Cameroon Study Population

	Females (544)	Males (193)	P
Age	**53.3±0.7**	**55.6±1.2**	**NS**
BMI	**27.7±0.2**	**26.1±0.4**	**<0.01**
Waist circumference (cm)	**91.1±0.5**	**89.8±0.9**	**NS**
Physical activiry ***Grade 1*** ***Grade 2*** ***Grade 3***	**15.3%** **40.4%** **44.3%**	**12.9%** **35.2%** **51.9%**	**NS** **0.04** **0.03**
Family history for Diabetes	**50.8%**	**49.2%**	**NS**
Family history for Obesity	**48.8%**	**50.3%**	**NS**
Blood Glucose T0 (mg/dl)	**75.7±1.5**	**82.3±2.6**	**0.029**
Blood Glucose 2H (mg/dl)	**121.6±2.39**	**122.9±3.9**	**NS**

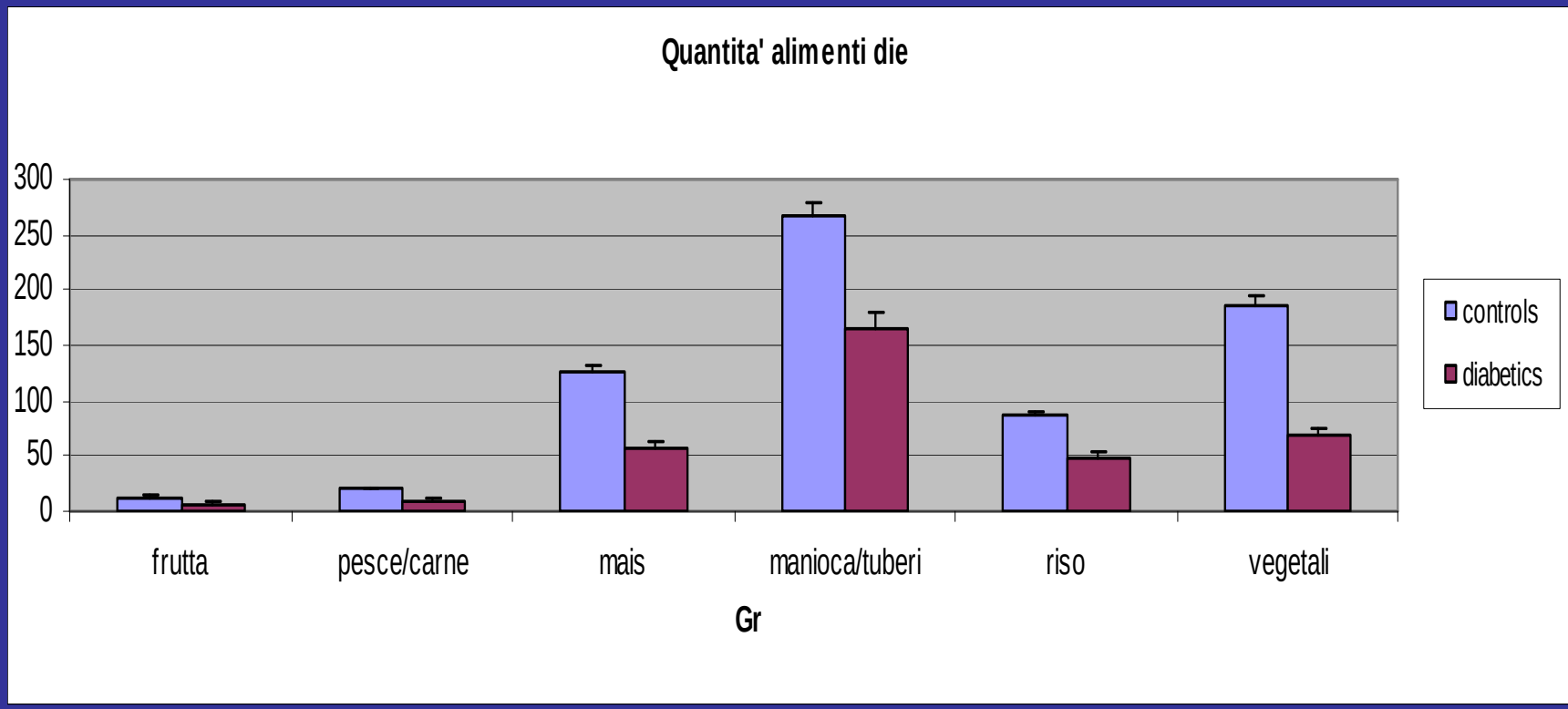
Cameroon Study Results

	Females (544)				Males (193)			
	Normo-Glycaemic *N=451 (83%)*	IGT *N=64 (12%)*	Diabetic *N=29 (5%)*	P	Normo-Glycaemic *N=146 (75%)*	IGT *N=25 (13%)*	Diabetic *N=23 (12%)*	P
Age	52.6±0.8	56.2±2.1	58.6±3.2	0.07	54.9±1.2	59.1±2.9	57.5±3.1	NS
BMI (kg/m^2)	27.4±0.2	29.1 ±0.7	29.9 ±1.0	<0.01	25.9±0.4	25.9±0.9	27.9±0.9	NS
Waist circunference (cm)	90.3±0.6	93.6±1.5	99.4 ±2.3	<0.01	88.7±0.9	91.5±2.3	96.3±2.4	0.01

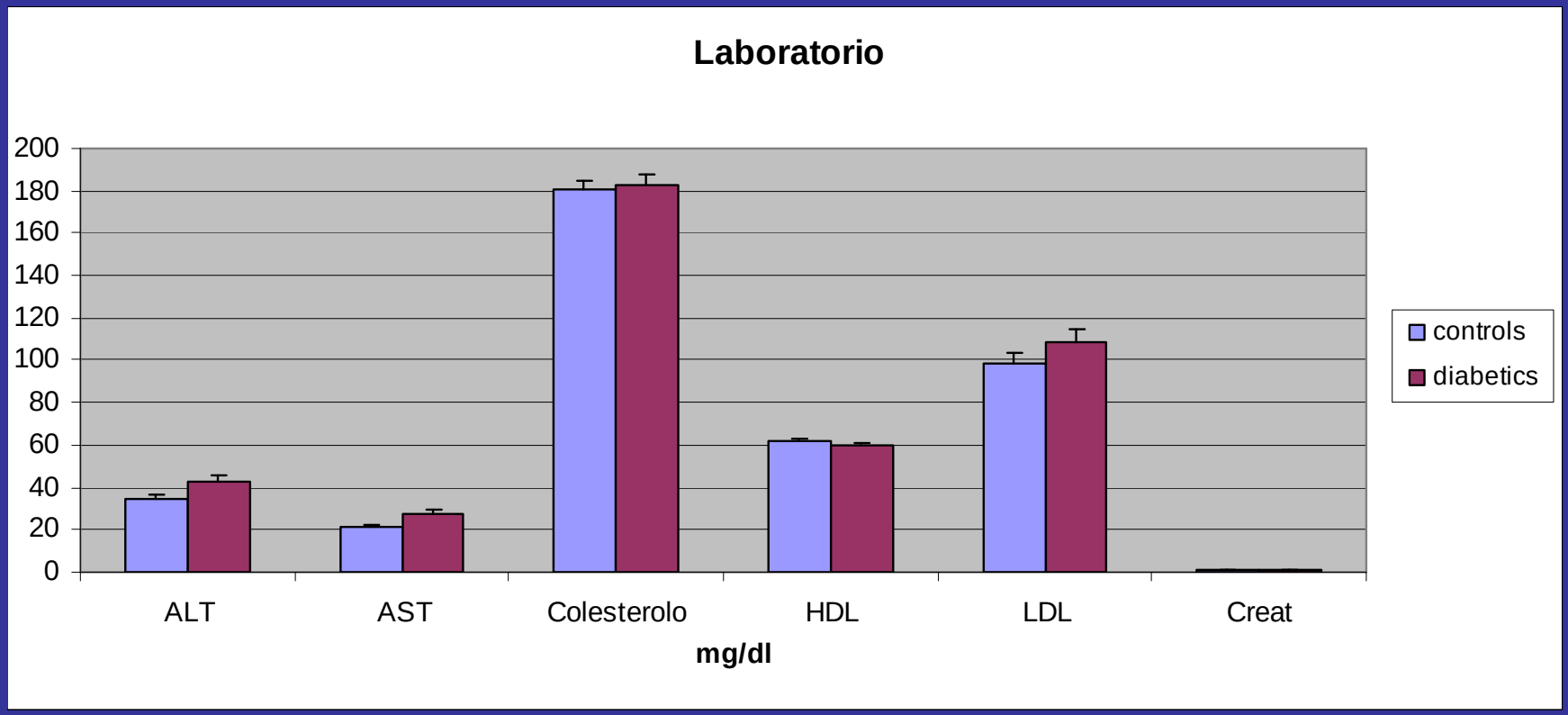

E MEDICAL D'ARRONDISSEMENT DE BATIE
VACCINER C'EST PROTEGER LA VIE
CALENDRIER DE VACCINATION
Soins
Laboratoire

Cameroon 09

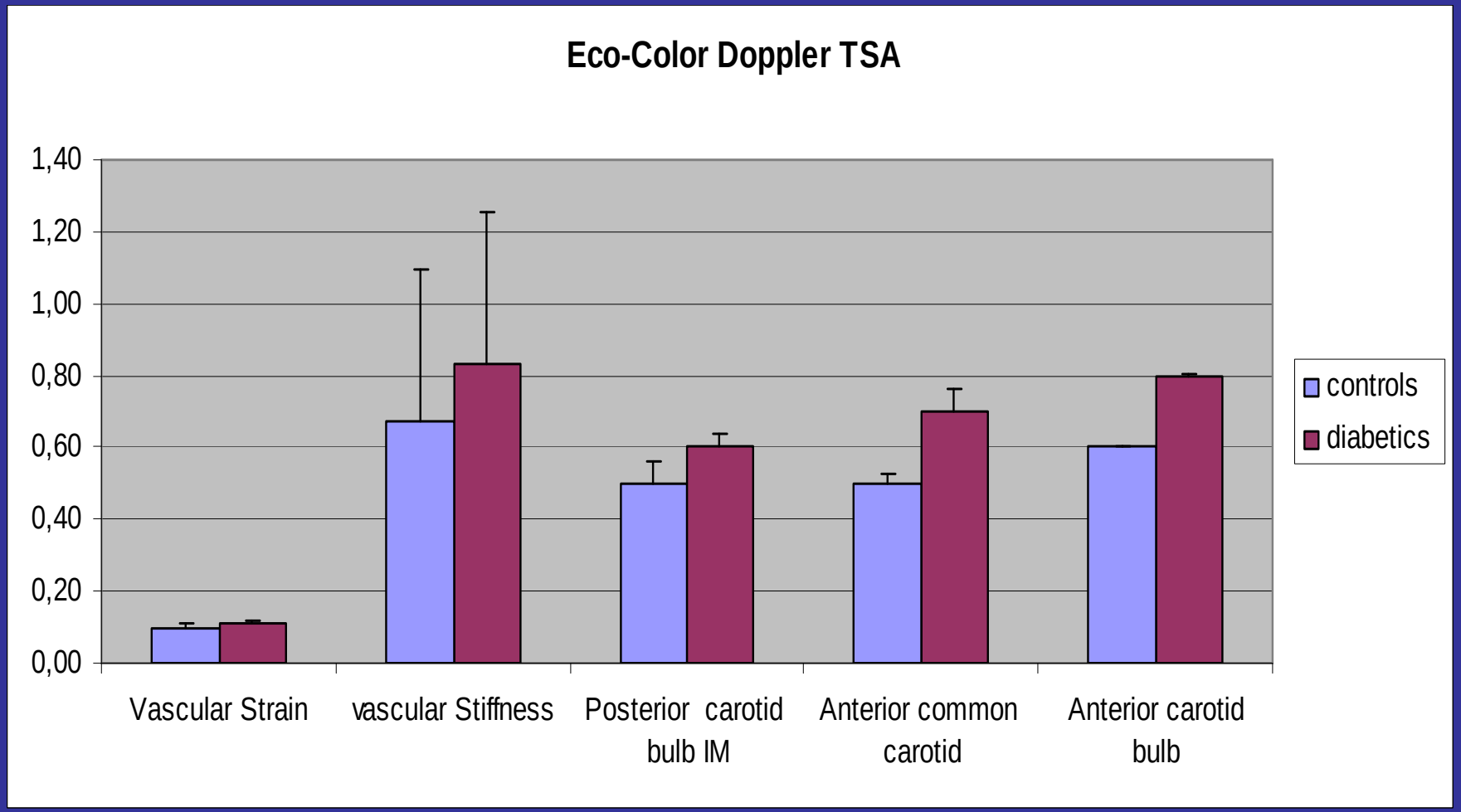
Introito Alimentare



Laboratorio



Valutazione Cardio-Vascolare



Conclusions

- The complication and mortality burden of diabetes in Africa is high and increasing.
- Potentially obesogenic dietary patterns are emerging, with especially large changes in rural areas with high levels of urban infrastructure and resources
- With increasing urbanisation and transitional lifestyles, diabetes and the metabolic syndrome are now significantly emerging problems that require urgent attention
- These data emphasize the importance of developing country policies that include preventive measures to minimize further adverse shifts in diet and activity, and risk of continued rises in overweight.