



UNIVERSAL SCREENING FOR DIABETES IN PREGNANCY ?

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On behalf of HELEN BHAGWANSINGH'S DERPI



Douens



Douens and the lost child. Sketch by Rudolph Bissessarsingh

-Trinidadian Folklore

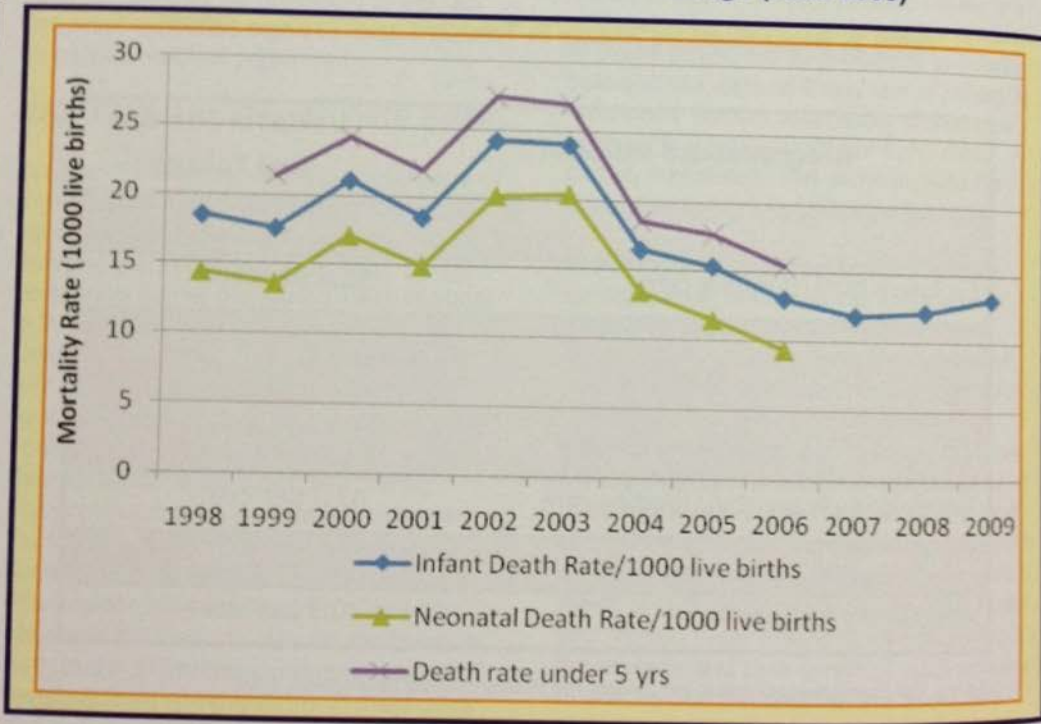
- Supernatural Elements

-Loss of Children



Infant Mortality Rate in T&T

Figure 2: The Infant Mortality Rate, Neonatal Mortality Rate and Under-Five Mortality Rate for Trinidad and Tobago (1998-2009)⁵



Source: Central Statistical Office (CSO) and the Ministry of Health Annual Statistical Reports (various years).

⁵ Data from 2007 to 2009 were only available for Infant Deaths



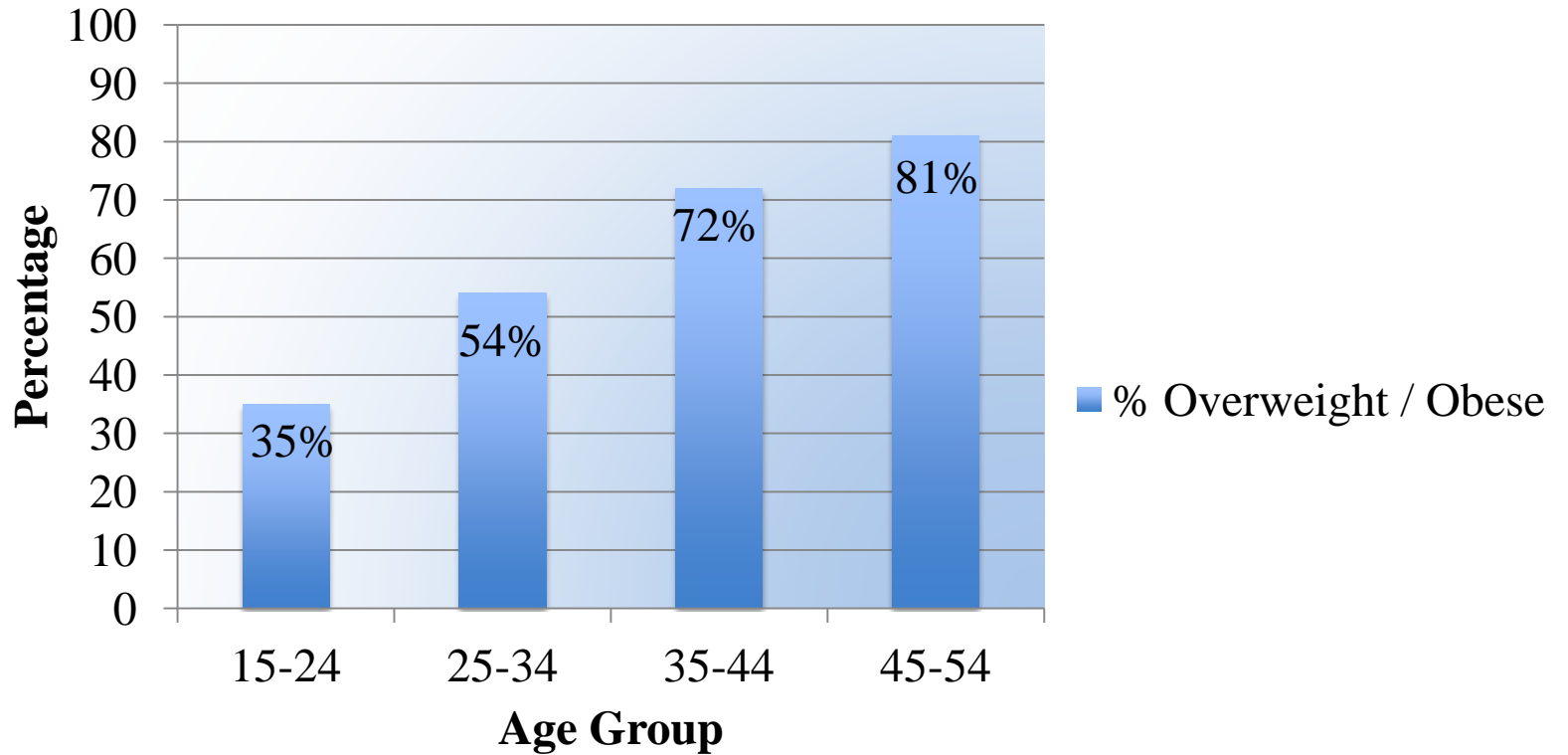
diabetes





OBESITY AMONG WOMEN

% Overweight / Obese



The Effects of Obesity on Pregnancy

Obesity affects ovulation, decreases fertility, increases obstetric risks and is associated with poorer neonatal outcomes. Table 32.1 [13] summarises the many adverse

Table 32.1 Risk of Pregnancy Complications with Obesity
Expressed as Odds Ratio

	Risk of Pregnancy Complications with Obesity Expressed as Odds Ratio	AU:8
Miscarriage	3.05	
Spina bifida	3.5	
Omphalocele	3.3	
Heart defects	2.0	
Gestational diabetes	3.6	
Pre-eclamptic toxemia	2.14	
Macrosomia	2.36	
Intrauterine death	1.4	
Induction of labour	1.70	
Caesarean section	1.83	
Postpartum haemorrhage	1.39	



Abnormal Glucose Tolerance

Prevalence of Diabetes/IFG among women in Trinidad and Tobago

- 25% among those 15-24 years old
- 29% among those 25-34 years old
- STEPS 2012



Effects of Diabetes on Pregnancy Outcomes

Diabetic pregnancy carries the following risks:

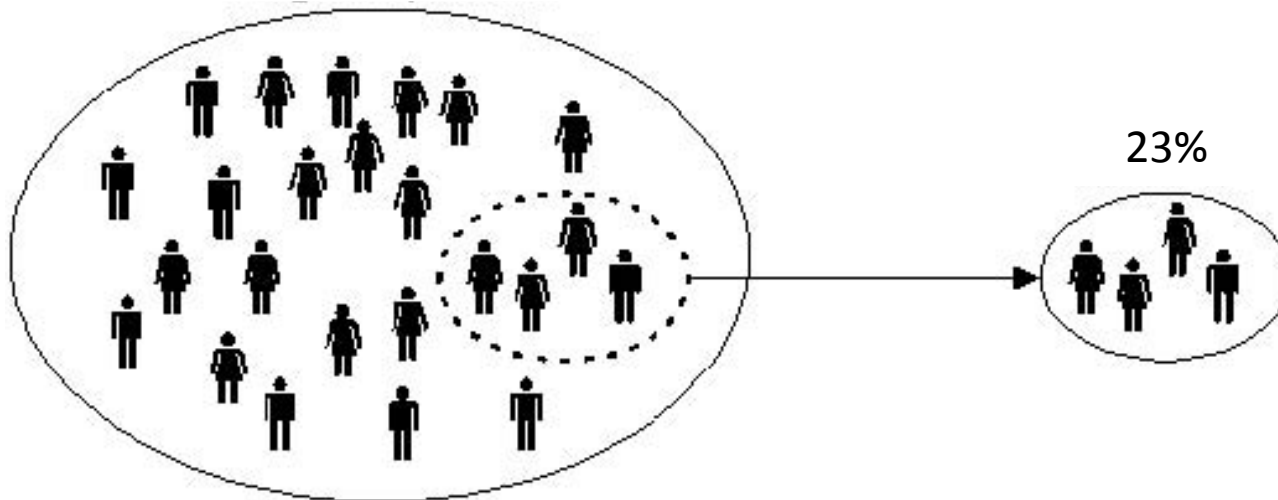
- **X 2-fold** increased risk of Caesarean section
- **X 3-fold** increased risk of trauma
- **X 4-fold** increased risk of admission to neonatal ICU
- **X 8-fold** increased risk of fetal abnormalities

High Background Rate of Diabetes in T&T

1,300,000 population

100,000 with T2DM

200,000 with prediabetes





State of Play

- 20,000 pregnancies per annum
- 1,000 enter pregnancy with diabetes
(BUT half unaware of this!)
- 3,000 develop GDM



State of Play

- 20,000 pregnancies per annum
- 1,000 enter pregnancy with diabetes
(BUT half unaware of this!)
- 3,000 develop GDM
- **COMMONEST MEDICAL CONDITION COMPLICATING PREGNANCY**
- **NO STANDARD APPROACH (at best, ad hoc)**



To Screen or Not to Screen

CASE FOR:

- High background prevalence of diabetes
- High background prevalence of obesity
- Unexplained high neonatal mortality probably linked to BOTH
- MISSED GESTATIONAL DIABETES?
- ONLY QUESTION: Which test?



What is recommended elsewhere?

- ACOG-universal screening: 2 Step
- ADA-universal screening: 1 Step
- AAFP-universal screening but no recommendation
- Endocrine Society-universal screening but no recommendation



What test?

- 50 g GCT Non-fasting
- FBS
- HbA1c
- Risk factor screening e.g. age, BMI, previous GDM etc
- Urinalysis
- GTT, if so, 75g or 100g? And if so, 2h or 3h?



One Step or Two Step?

- ONE STEP- GTT
- 2-STEP: glucose challenge followed by GTT



What Standard?

- NDDG e.g. FBS 105
- Carpenter-Coustan e.g. FBS 95
- IADPSG e.g. FBS 92



C-C versus IADPSG

	C-C	IADPSG
FBS	95	92
1 hour	180	180
2 hour	155	153

Important difference:
IADPSG requires only 1 to be abnormal!



Outcomes

- QUALITY
- UNIVERSAL ACCESS
- MULTISECTORAL
- COMPREHENSIVE SCREENING
- FULFILL MANDATES OF MILLENNIUM DEVELOPMENT GOALS as well as DECLARATION OF POS



Evidence Base for GDM Screening

- CERTAINTY at least **“B”**
- BENEFIT at least *moderate*
- RISK at worst *minimal*



Timing

- High Background Diabetes Rate makes it essential to exclude PRE-GESTATIONAL diabetes
- Important to screen at FIRST ante-natal visit
- Repeat ROUTINE screening at 24-28 weeks



The Network

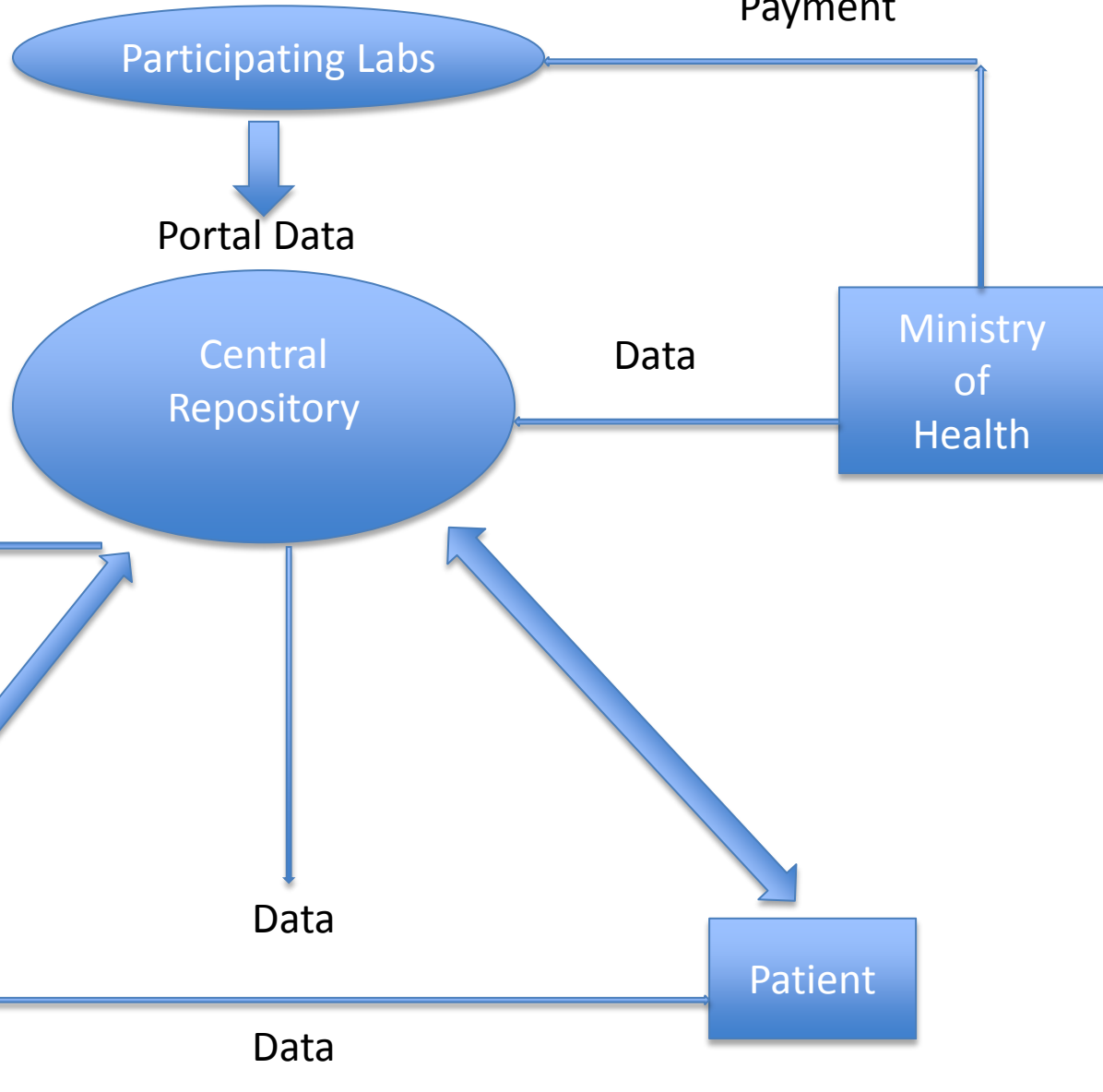
ROLES:

Quality Control ←

Trouble Shooting ←

Data Collection ←

Data Dissemination ←



Practitioner/
Clinic

GP
Specialist
Clinic

Patient



WE AGREE.

Diabetes

We see a world where ~~AIDS~~ will stop stealing our friends.

Threatening our employees.

And harming newborn babies.

From San Francisco to West Africa,

Diabetes ~~AIDS~~ attacks us where we work and live.

At Chevron, we've fought back with testing, education, care, and support.

Our employees and partners are working side by side to end mother-to-child transmission.

And we're winning.

Diabetes

In Nigeria, where the grip of ~~HIV~~ is fierce, our children haven't had a reported case in 12 years.

Diabetes ~~AIDS~~ is strong.

But, together, we are stronger.

Lend your voice at chevron.com/aids ~~#aids~~ [#aidswilllose](https://twitter.com/aidswilllose)



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