

## Diabetes Tsunami »

### WHO Report 2016 on Diabetes

- 422 million adults have diabetes(108in 1980)
- Incidence increased from 4.7 to 8.5%
- Rising incidence from 4.7 to 8.5%(1980–2016)
- 1.5 million deaths caused by diabetes
- 2.2 million additional deaths contributed by poor glycaemic control
- Diabetes and its complications bring about substantial economic loss to people with diabetes and their families, and to health systems and national economies.





DIABETES IS ON THE RISE 422 MILLION adults have diabetes

3.7 MILLION deaths due to distribute and high tilling glusses

1.5 MILLION deaths caused by diabetes



#### THAT'S 1 PERSON IN 11

# WHO recommendations on prevention

- Type 1 diabetes cannot be prevented with current knowledge
- Effective approaches are available to prevent type 2 diabetes and to prevent the complications and premature death that can result from all types of diabetes.

### Why Call it Tsunami

- The 2011 Japanese tsunami has been estimated to cost Japan US\$ 309 billion in damages.
- Annual health expenditure in the USA as a result of Type 2 diabetes mellitus (T2DM) is about US\$ 299 billion(2011) and rising every year

#### Verbreitung von Diabetes 2014\*



Quelle: International Diabetes Federation | \* Altersbereinigt mit der Altersstruktur der Weltbevölkerung

#### Prevalence estimates of diabetes, 2025



#### NZ Figures

- The number of New Zealanders living with diabetes has doubled from 125,000 to 250,000 in the past 10 years(2015).
- It estimated a further 1.1 million people have pre-diabetes
- In 2008 the estimated direct cost for type 2 diabetes was \$600 million per year. The forecast cost of diabetes was predicted to rise from \$600 million in 2006/07 to \$920 million in 2011/12, \$1,310 million in 2016/17 and \$1,770 million in 2021/22(15% of health budget).

### **Obesity Epidemic**

- In NZ ~1 in 4 adults obese (BMI >30)
- 1 in 5 children <14 yrs overweight and 1/12 obese
- Rates rising in 'obesogenic' environment



## 1 Person in 11 are Diabetic, but it doesn't have to be YOU.

#### **T2DM is Preventable**

- Maintaining healthy body weight(BMI 20-25)
- Exercising at least 30min/day
- Eating healthy

#### Reduce risk of Diabetes Complications

- AND
- Good glycaemic control
- Regular medication
- Control BP and lipids
- Regular Screening- Retinal, Renal and Legs

#### **Diagnostic Criteria**

Result	Action	Why
Symptomatic		
HbA1c ≥ 50 mmol/mol and, if measured, Fasting glucose ≥7.0 mmol/L Or Random blood glucose ≥11.1mmol/L	No further tests required	Diabetes is confirmed
Asymptomatic		
HbA1c ≥ 50 mmol/mol and, if measured, Fasting glucose ≥7.0 mmol/L Or Random glucose ≥ 11.1 mmol/L	Repeat HbA1c or a fasting plasma glucose	Two results above the diagnostic cutoffs, on separate occasions are required for the diagnosis of diabetes*
	Advise on diet and lifestyle	Results indicate
HbA1c 41-49 mmol/mol and, if measured, Fasting glucose 6.1–6.9 mmol/L	modification. Repeat the test after 6-12 months	'pre-diabetes' or impaired fasting glucose*
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HbA1c ≤ 40 mmol/mol and ,if measured, Fasting glucose ≤6 mmol/L	Retest at intervals as suggested in cardiovascular risk factor guidelines	This result is normal

#### Management Of T2DM



### At Risk

- Risk increases with age
- Overweight and Obese
- Sedentary lifestyle
- Ethnicity
- Family history
- H/O Gestational Diabetes or had large babies
- Long-term use of some medications
- Non Coffee drinkers ???

#### What Can We Do

As an individual

As a community

As a Nurse