

Diabetic Retinopathy

The scope of the challenge today
and in the next twenty years

DR-NGOs meeting, Bangkok, 6 Apr 13

Serge Resnikoff MD PhD

Estimating DR magnitude

Prevalence among people with Diabetes:

- Any DR = 35.4%
- Vision Threatening DR = 11.7%
- Proliferative DR (PDR) = 7.2%
- Macular Oedema (DME) = 7.5%

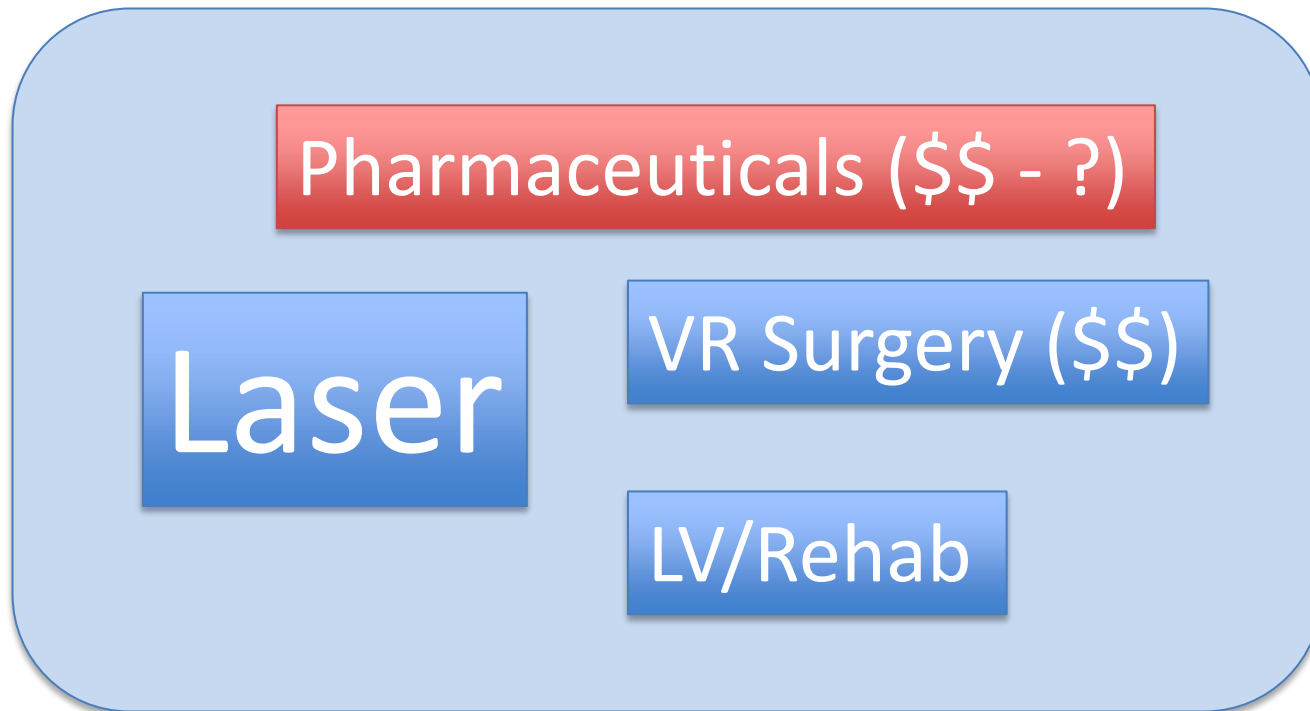
- Based on meta analysis by JW Yau

Yau JW, Rogers SL, Kawasaki R, et al. Global Prevalence and Major Risk Factors of Diabetic Retinopathy. Diabetes Care. Mar 2012;35(3):556-564.

Example for 1 million population

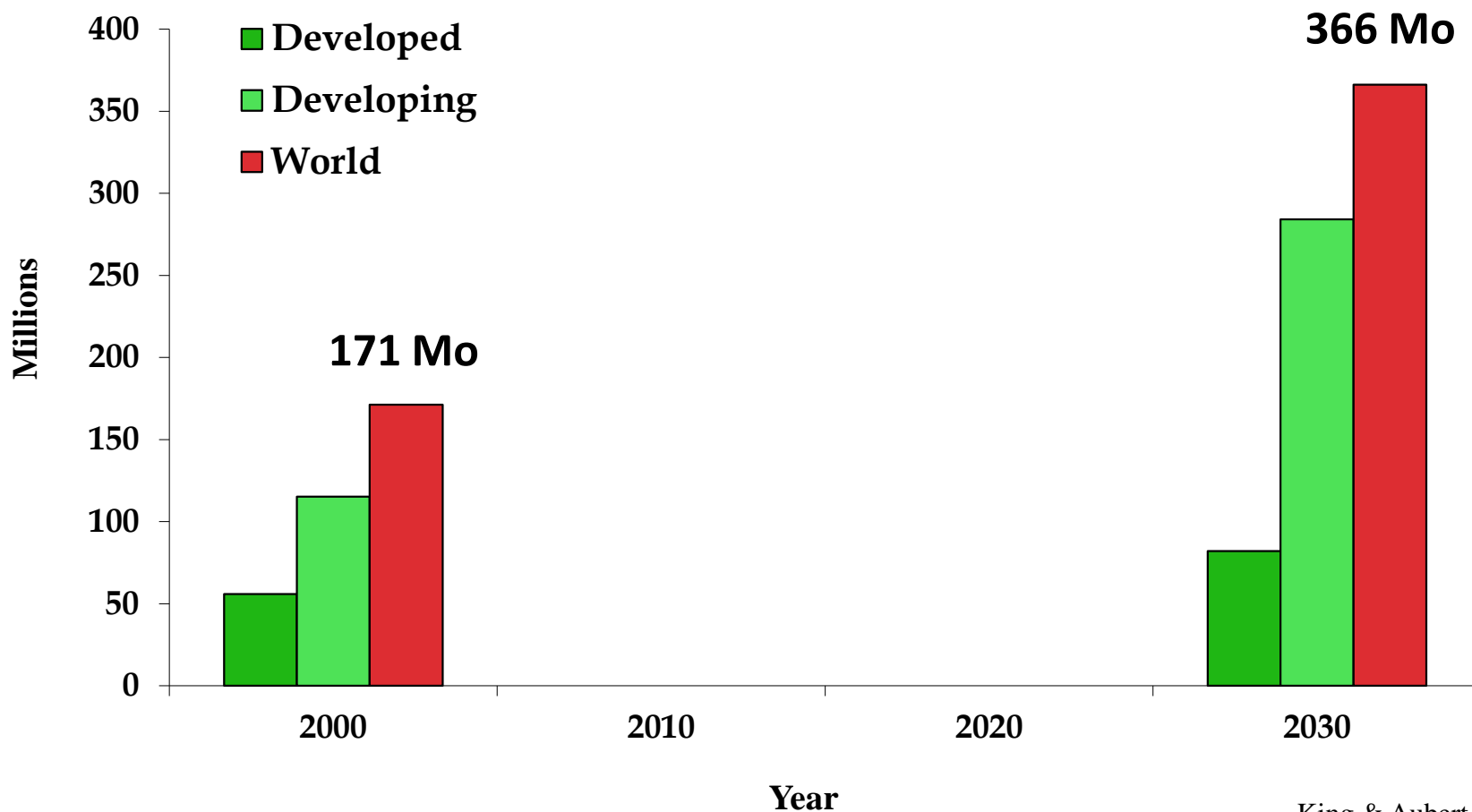
Population	1'000'000		
DM prevalence	4.0%		
No of Diabetics	40'000		No. to screen/yr
	Prev	Number	
Any DR	35.4%	14'160	
Vision Threatening DR	11.7%	4'680	No. to manage
Proliferative DR	7.2%	2'880	
DME	7.5%	3'000	

DR Management



Requires a comprehensive care system
Ethical issues

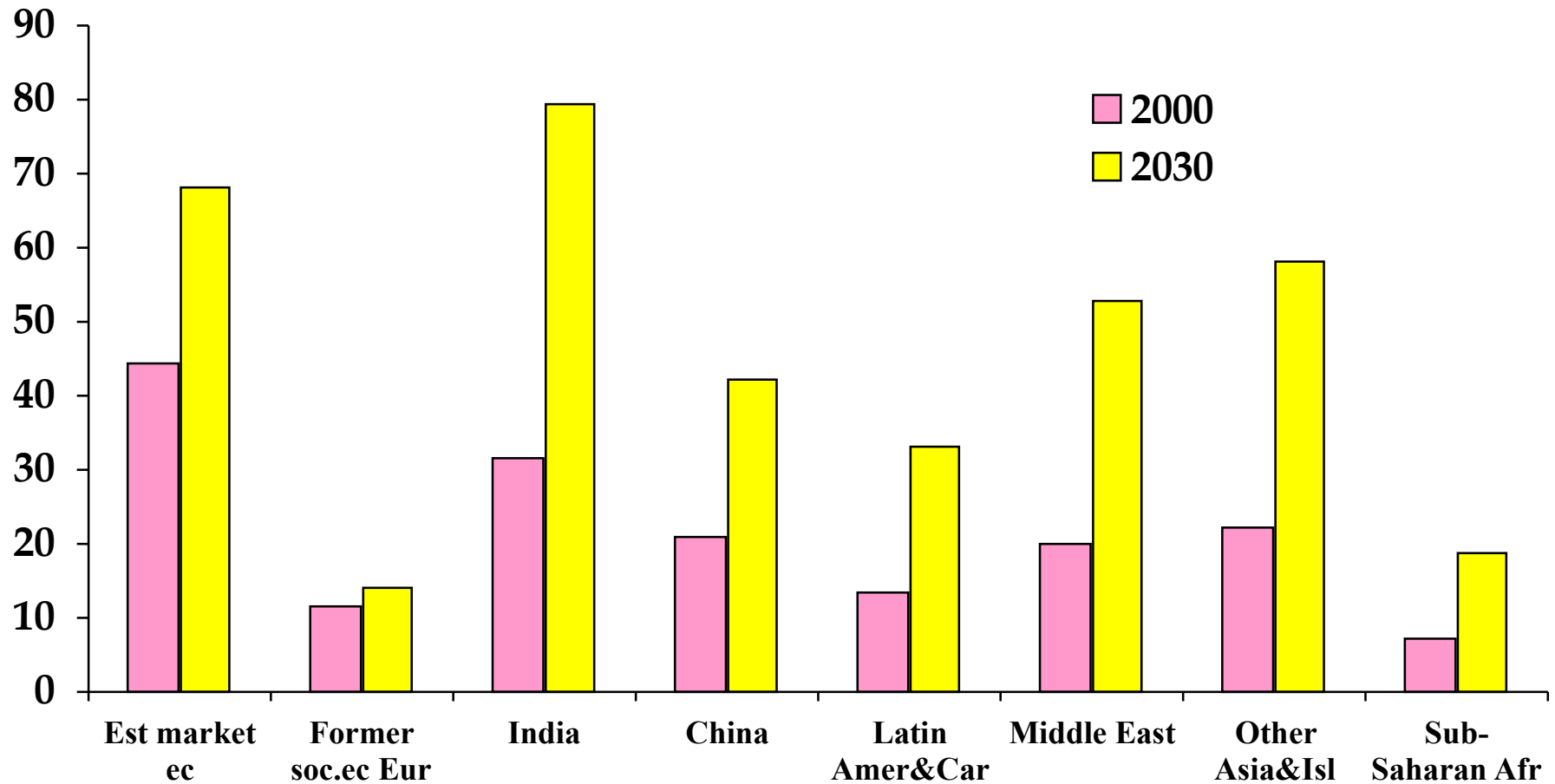
Number of persons with diabetes in the world, 1995 – 2030 (2004 estimates)



King & Aubert, 1998

Wild & Roglic, 2004

Number of persons with diabetes (millions)





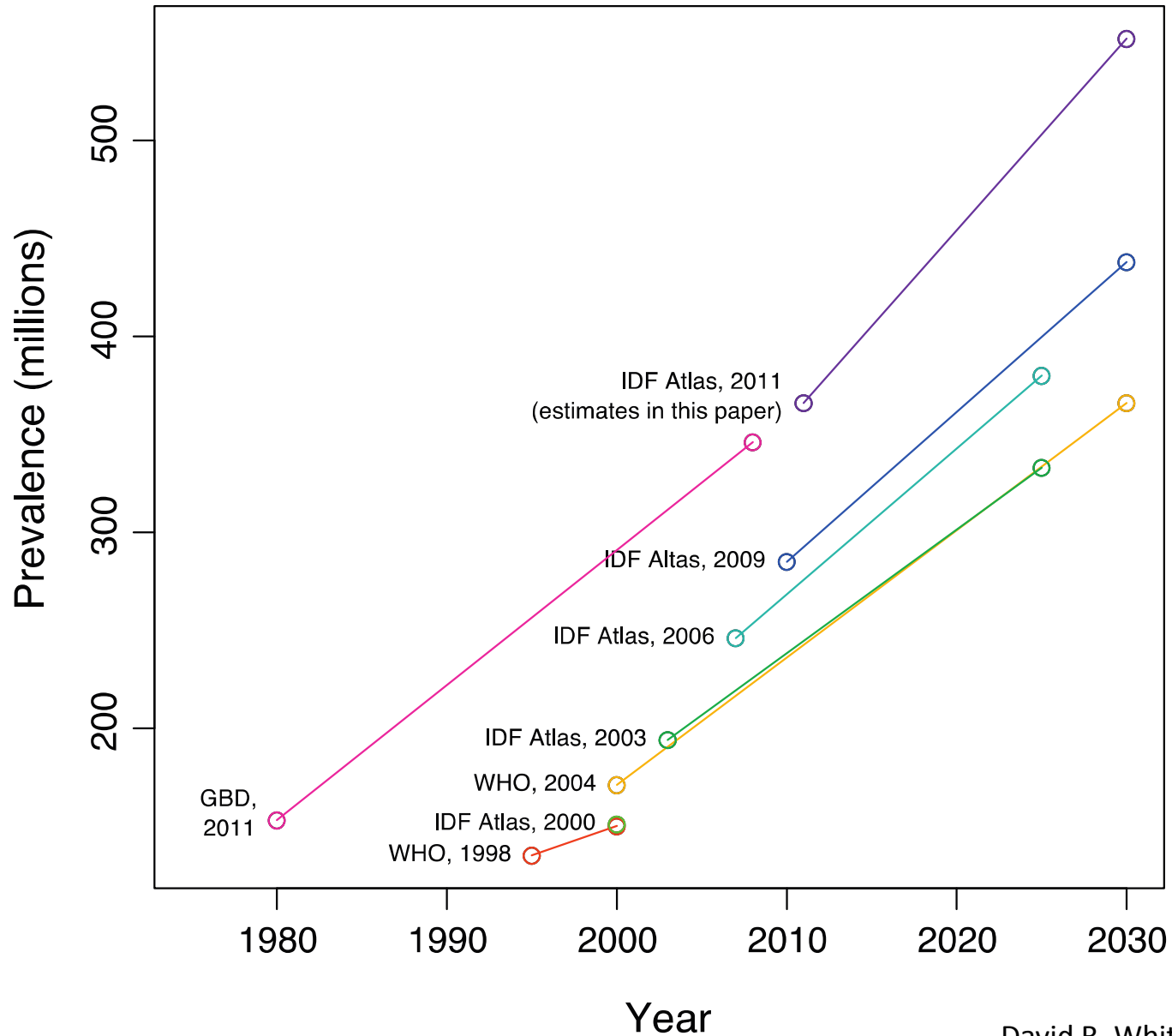
IDF DIABETES ATLAS

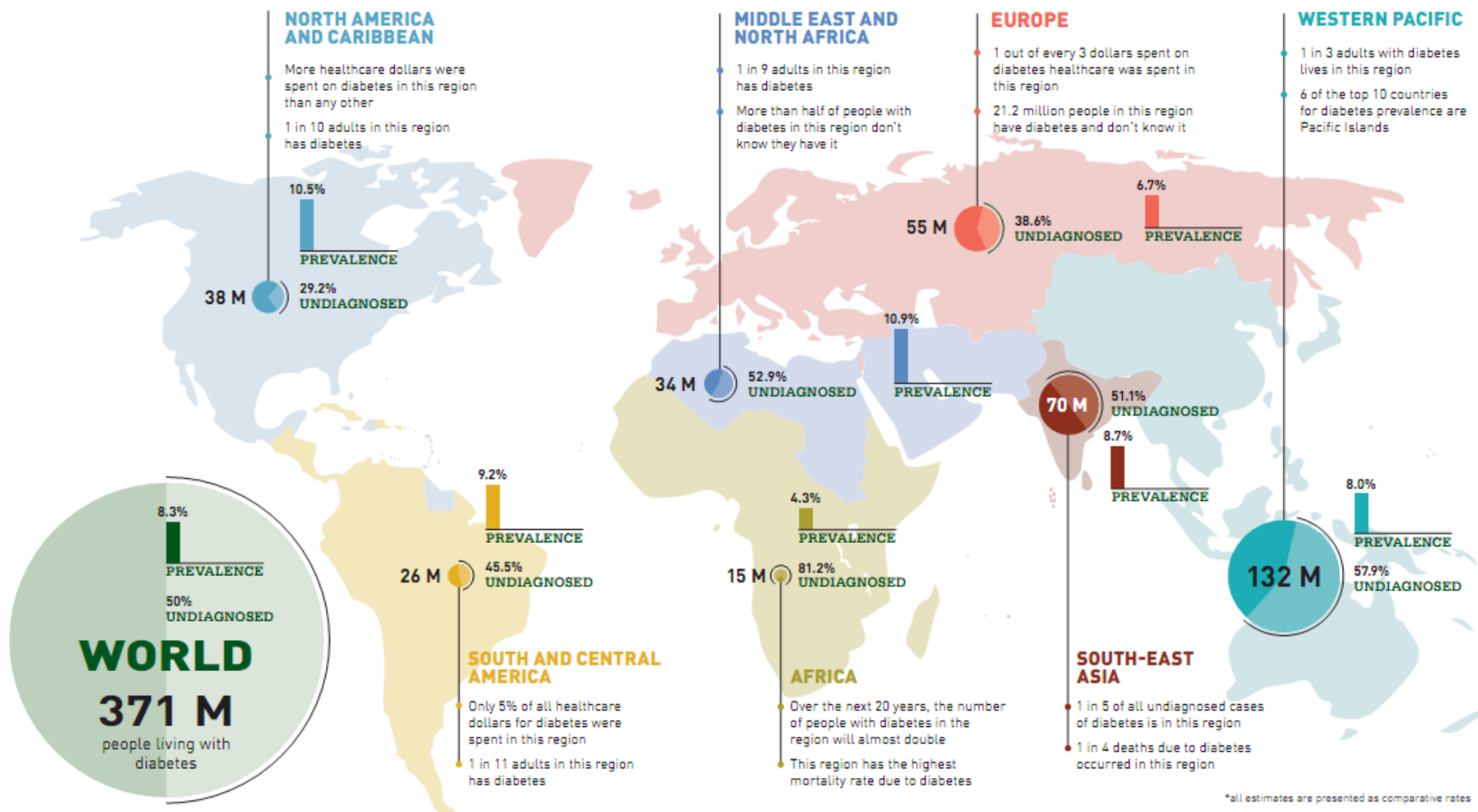
Fifth edition



5th Edition
November 2011

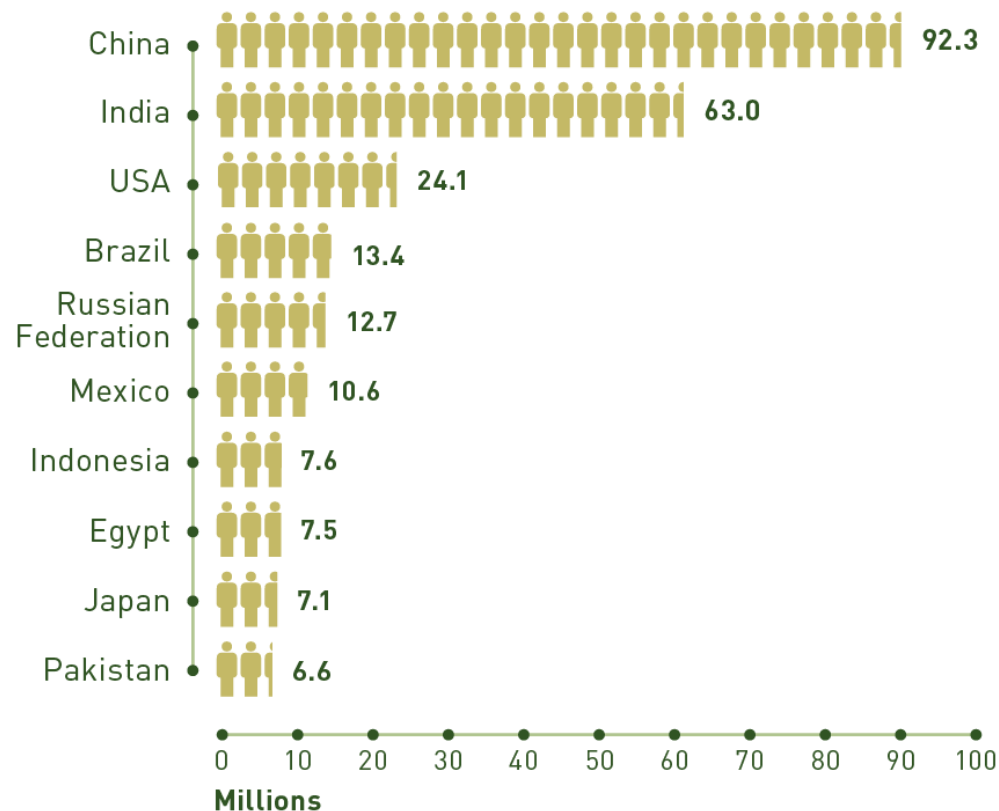
Estimates and projections of global diabetes prevalence





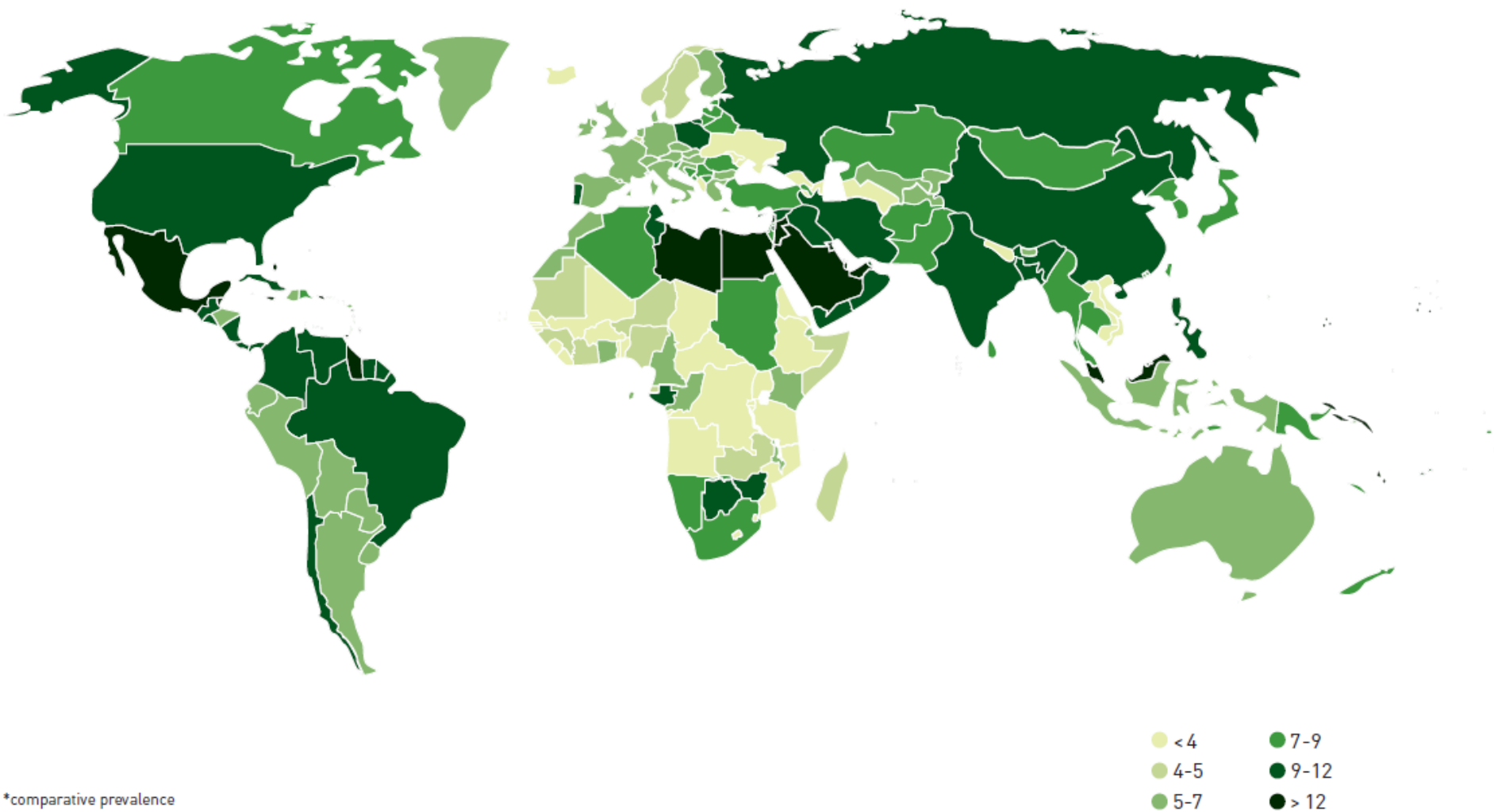
More than **371 million** people have diabetes.

TOP 10 COUNTRIES / TERRITORIES FOR PEOPLE WITH DIABETES (20-79 YEARS)



Map 2.1. Prevalence* (%) of diabetes in (20-79 years), 2011

Prevalence of diabetes, 2011



The Top 10s

(prevalence %)

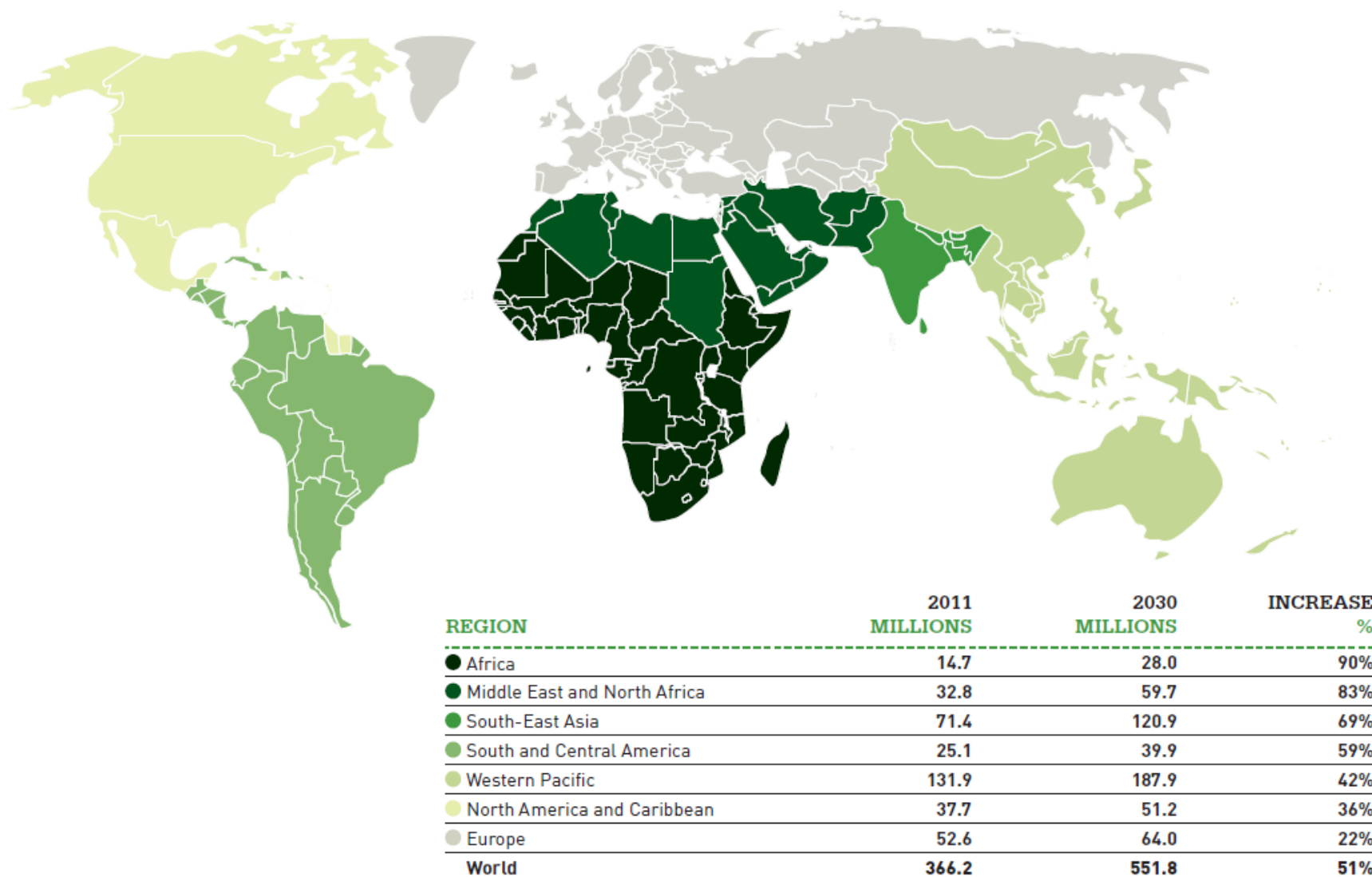
Table 2.1. Top 10 countries/territories for prevalence* (%) of diabetes (20-79 years), 2011 and 2030

COUNTRY /TERRITORY	2011 PREVALENCE (%)
1 Kiribati	25.7
2 Marshall Islands	22.2
3 Kuwait	21.1
4 Nauru	20.7
5 Lebanon	20.2
6 Qatar	20.2
7 Saudi Arabia	20.0
8 Bahrain	19.9
9 Tuvalu	19.5
10 United Arab Emirates	19.2

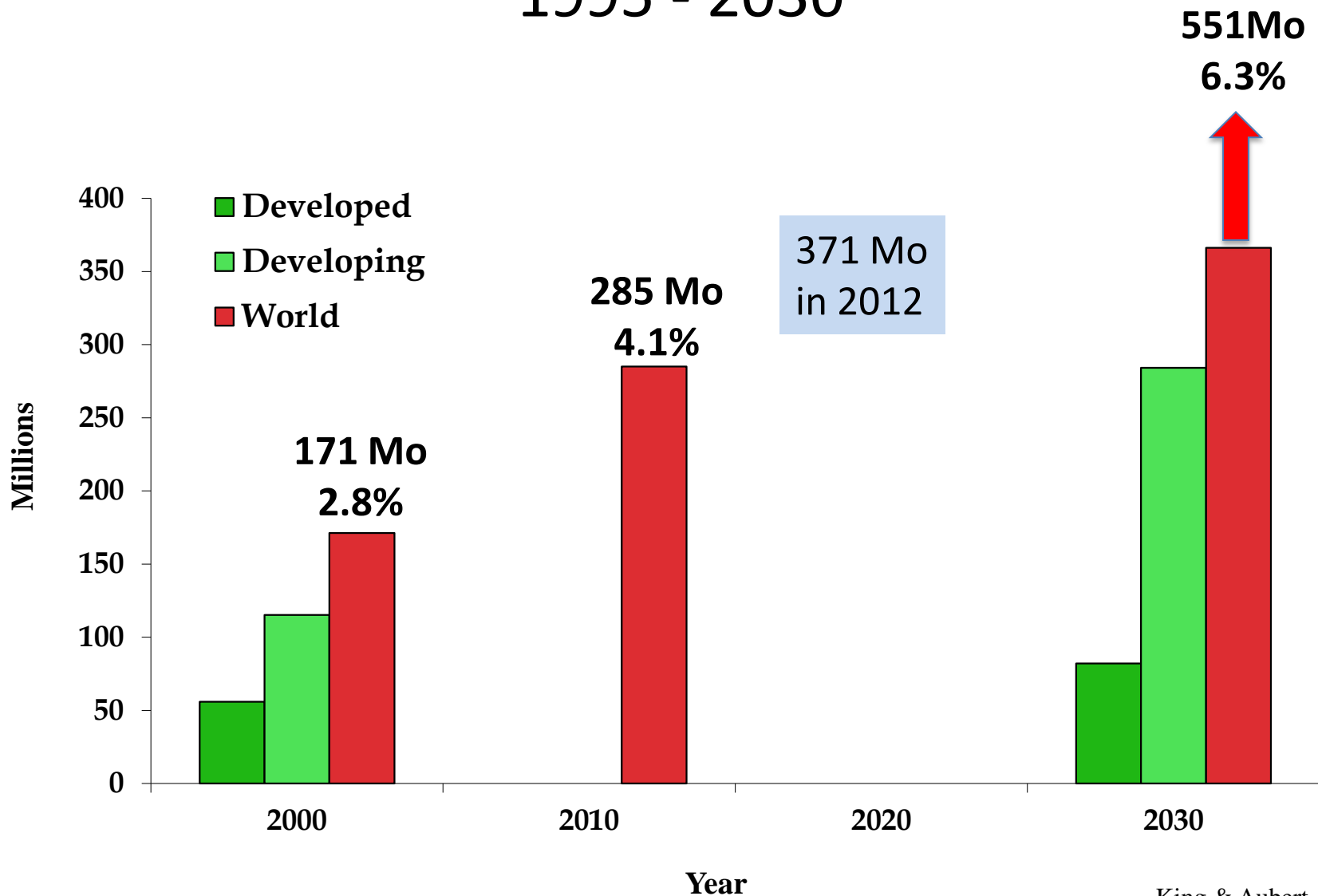
COUNTRY /TERRITORY	2030 PREVALENCE (%)
1 Kiribati	26.3
2 Marshall Islands	23.0
3 Kuwait	21.2
4 Tuvalu	20.8
5 Nauru	20.7
6 Saudi Arabia	20.6
7 Lebanon	20.4
8 Qatar	20.4
9 Bahrain	20.2
10 United Arab Emirates	19.8

*comparative prevalence

Map: IDF Regions and global projections of the number of people with diabetes (20-79 years), 2011 and 2030



Number of persons with diabetes in the world, 1995 - 2030

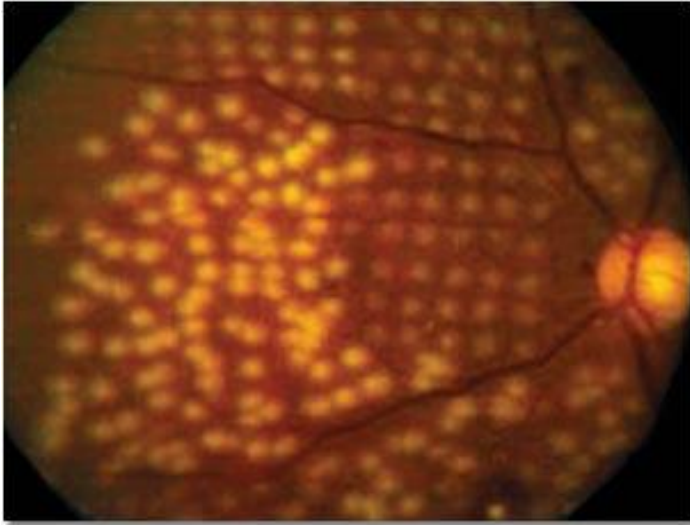


King & Aubert, 1998

Wild & Roglic, 2004

In one million population 2012 and 2030

	2012	2030	
DM prevalence	4.1%	6.3%	
No of Diabetics	41 000	63 000	to screen/yr
Any DR	14 514	22 302	
Vision Threatening DR	4 797	7 371	to manage
Proliferative DR	2 952	4 536	
DME	3 075	4 725	



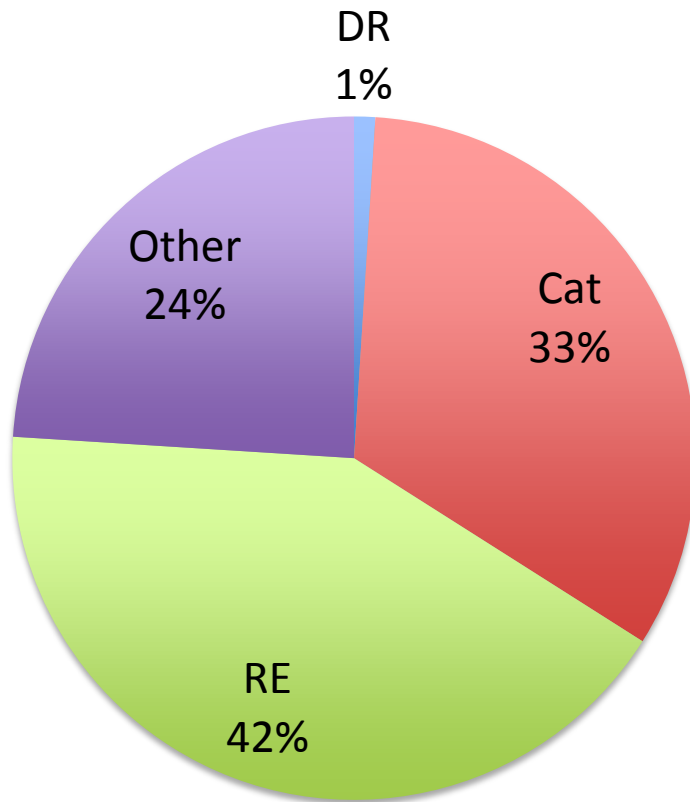
Pan Retinal Photocoagulation



Carpet-Bombing

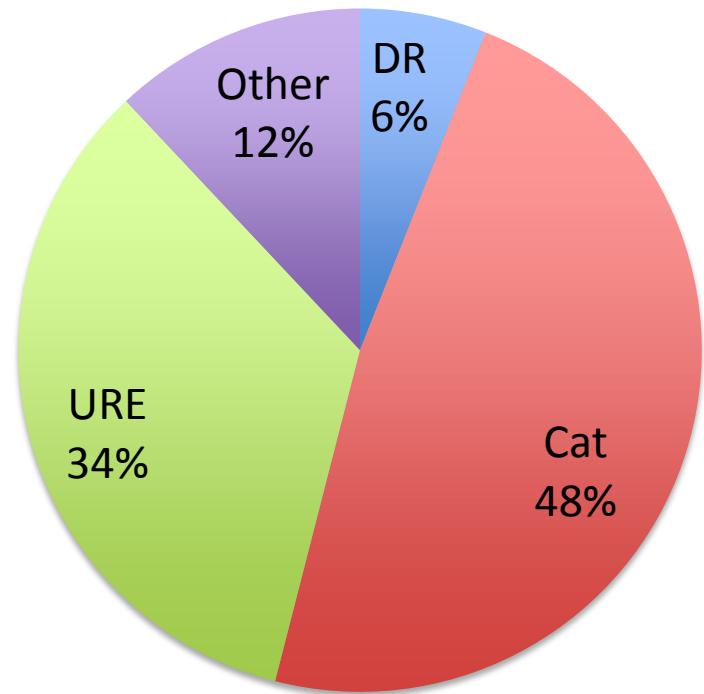
Primary prevention is critical

World
WHO 2012 data



Diabetes prev: 4.1%

Chiapas, Mexico
DR-RAAB 2012 data



Diabetes prev: 21%