

# SUPPLEMENTARY RESULTS.

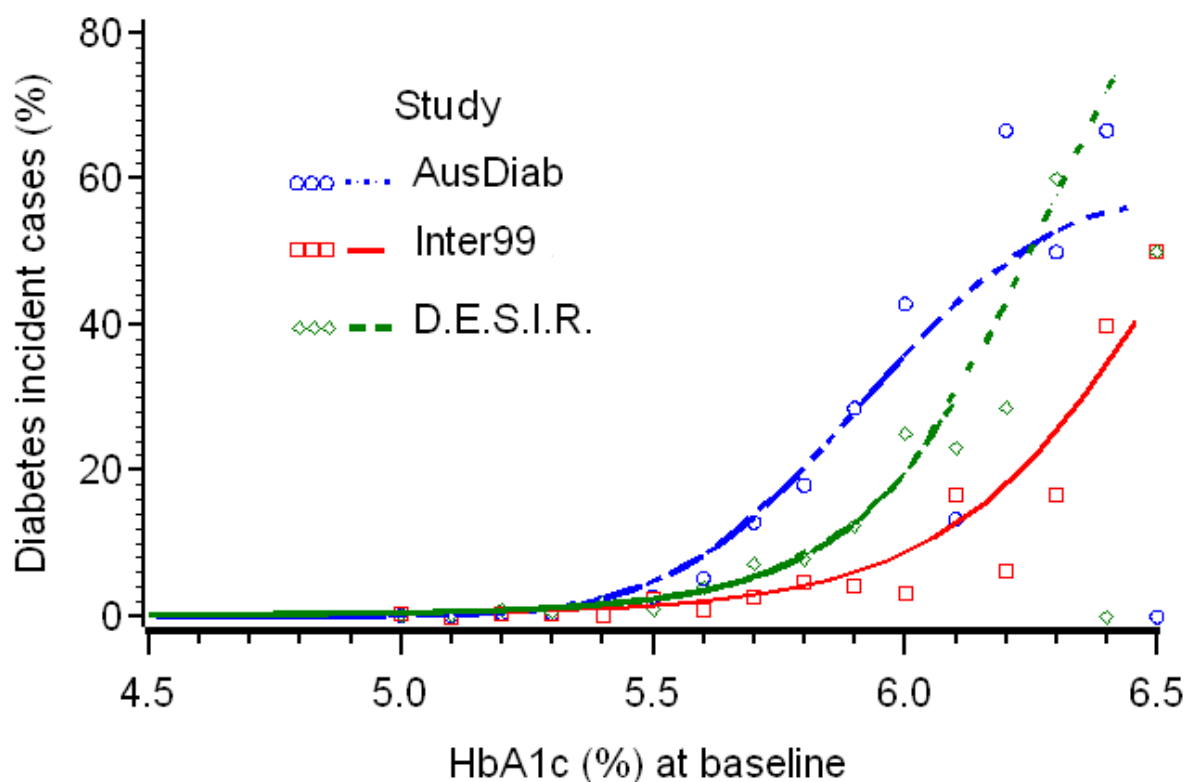
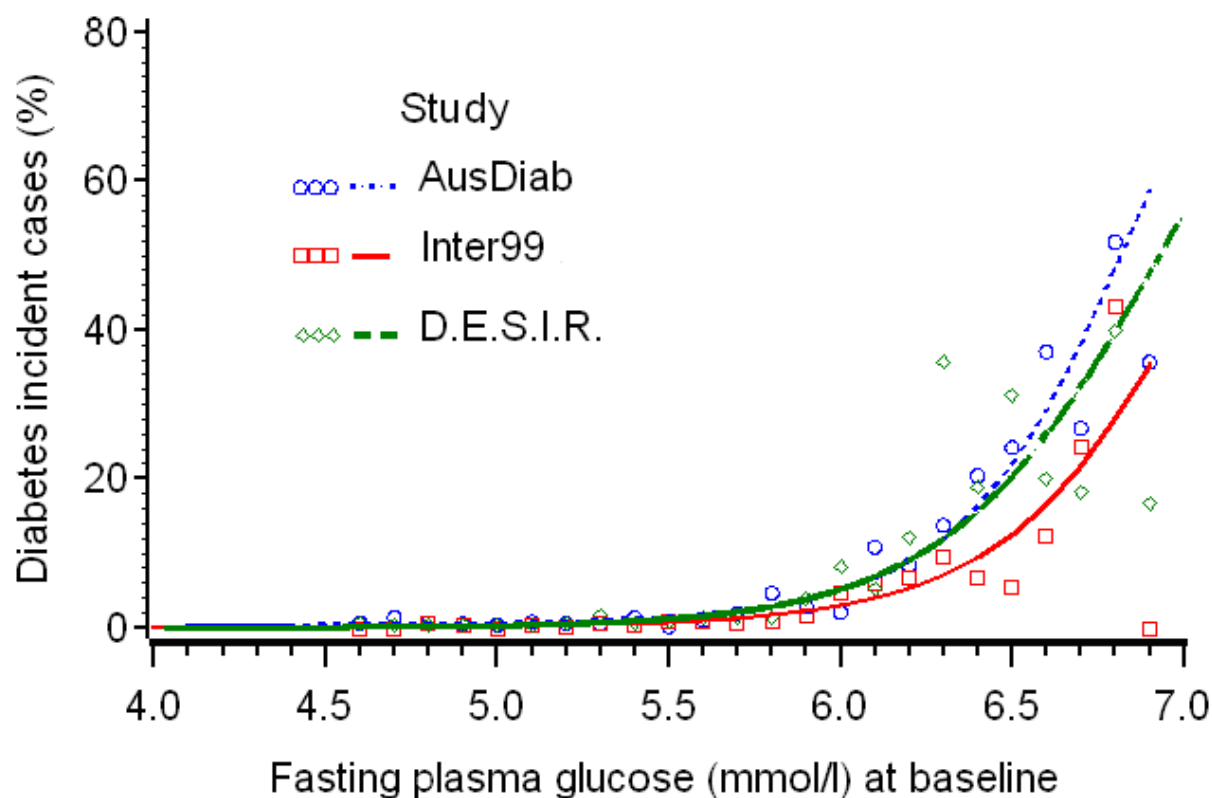
**Supplementary Table 1.** Numbers with incident diabetes, as defined by treatment for diabetes, fasting plasma glucose  $\geq 7.0$  mmol/l or HbA1c  $\geq 6.5\%$ , according to whether HbA1c has been adjusted on AusDiab, Inter99 or D.E.S.I.R. studies, or not adjusted at all. P values indicate the difference between the incidence of diabetes screened by FPG and by HbA1c for each cohort and each adjustment, from the McNemar test.

HbA1c adjusted on AusDiab						
	AusDiab n=6025		Inter99 n=4961		D.E.S.I.R. n=3799	
Treated incident diabetes	57 (0.9%)		22 (0.4%)		27 (0.7%)	
Newly screened diabetes						
Isolated-FPG*	82 (1.4%)	$P_{\text{McNemar}}$ ≤0.0001	64 (1.3%)	$P_{\text{McNemar}}$ ≤0.0001	35 (0.9%)	$P_{\text{McNemar}}$ =0.0004
Isolated-HbA1c**	10 (0.2%)		7 (0.1%)		11 (0.3%)	
Both FPG & HbA1c***	37 (0.6%)		15 (0.3%)		17 (0.4%)	
HbA1c adjusted on Inter99						
	AusDiab n=5872		Inter99 n=4703		D.E.S.I.R. n=3673	
Treated incident diabetes	32 (0.5%)		12 (0.2%)		20 (0.5%)	
Newly screened diabetes						
Isolated -FPG	47 (0.8%)	$P_{\text{McNemar}}$ = 0.27	36 (0.8%)	$P_{\text{McNemar}}$ =0.0067	21 (0.5%)	$P_{\text{McNemar}}$ =0.0008
Isolated -HbA1c	37 (0.6%)		63 (1.3%)		49 (1.3%)	
Both FPG & HbA1c	40 (0.7%)		21 (0.4%)		15 (0.4%)	
HbA1c adjusted on D.E.S.I.R.						
	AusDiab n=6012		Inter99 n=4930		D.E.S.I.R. n=3784	
Treated incident diabetes	55 (0.9%)		16 (0.3%)		25 (0.7%)	
Newly screened diabetes						
Isolated -FPG	71 (1.2%)	$P_{\text{McNemar}}$ ≤0.0001	59 (1.2%)	$P_{\text{McNemar}}$ ≤0.0001	27 (0.7%)	$P_{\text{McNemar}}$ =0.17
Isolated -HbA1c	15 (0.2%)		20 (0.4%)		18 (0.5%)	
FPG & HbA1c	45 (0.7%)		19 (0.4%)		22 (0.6%)	
HbA1c not adjusted, original data						
	AusDiab n=6025		Inter99 n=4703		D.E.S.I.R. n=3784	
Treated incident diabetes	57 (0.9%)		12 (0.2%)		25 (0.7%)	
Newly screened diabetes						
Isolated -FPG	82 (1.4%)	$P_{\text{McNemar}}$ ≤0.0001	36 (0.8%)	$P_{\text{McNemar}}$ =0.007	27 (0.7%)	$P_{\text{McNemar}}$ =0.17
Isolated -HbA1c	10 (0.2%)		63 (1.3%)		18 (0.5%)	
Both FPG & HbA1c	37 (0.6%)		21 (0.4%)		22 (0.6%)	
* Isolated-FPG: fasting plasma glucose ≥ 7.0 mmol/l, HbA1c < 6.5%, not treated for diabetes						
** Isolated-HbA1c: fasting plasma glucose < 7.0 mmol/l, HbA1c ≥ 6.5%, not treated for diabetes						
*** Both FPG & HbA1c: fasting plasma glucose ≥ 7.0 mmol/l and HbA1c ≥ 6.5% (48 mmol/mol) and not treated for diabetes						

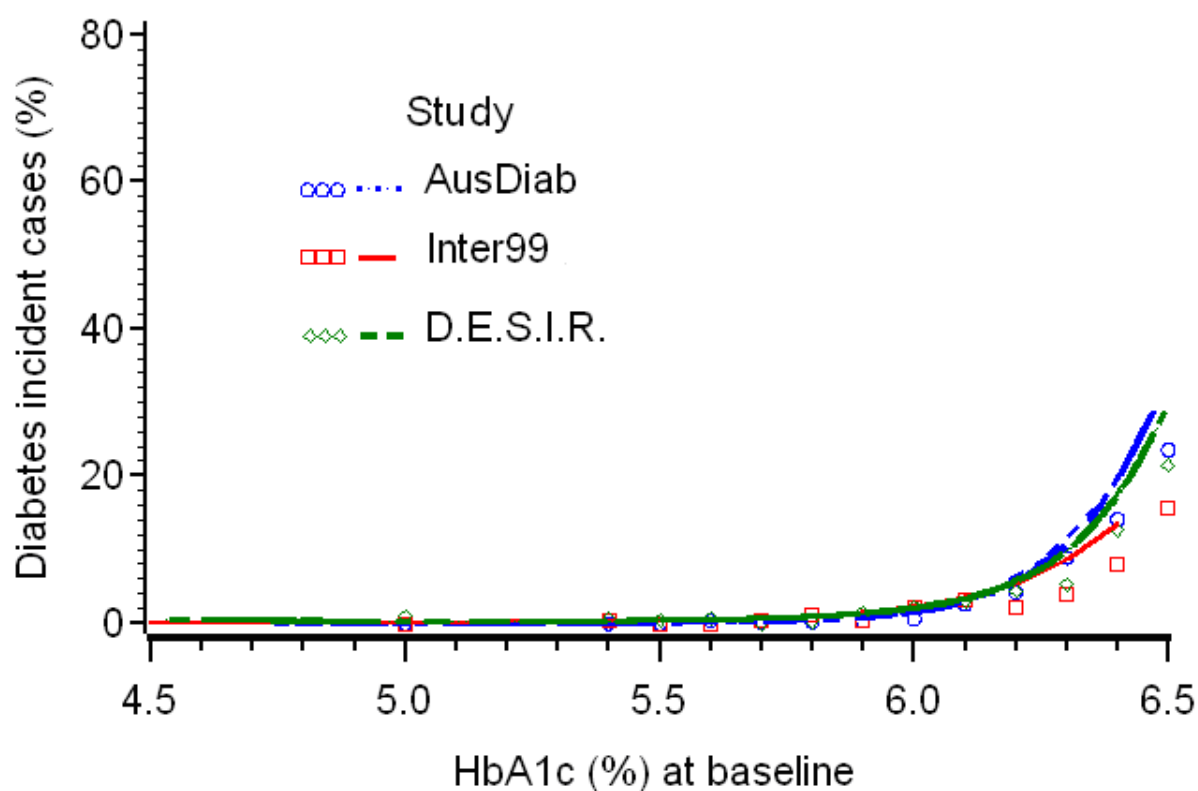
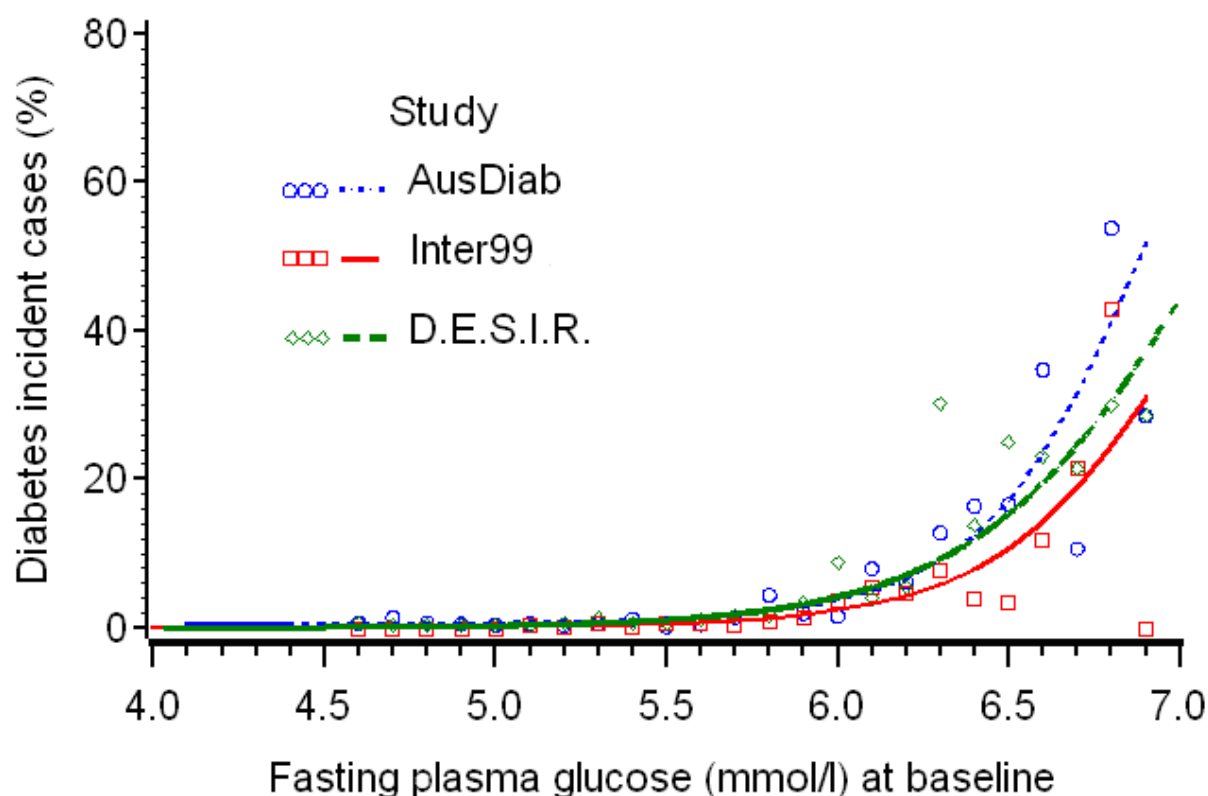
**Supplementary Table 2.** Standardized odds ratios, for an increase in one SD of FPG and HbA1c for each of the cohorts, according to the cohort on which the mean HbA1c had been adjusted.

HbA1c adjusted on		Odds Ratios (95%CI)		95% CI of difference between FPG and HbA1c
		FPG	HbA1c	
<b>AusDiab</b>				
	AusDiab	4.1 (3.5-4.9)	5.0 (4.1-6.1)	-0.8 [-2.1 to 0.17]
	Inter99	4.5 (3.6-5.7)	4.1 (3.0-5.5)	0.4 [-1.4 to 1.9]
	D.E.S.I.R.	4.8 (3.7-6.1)	4.7 (3.5-6.3)	0.1 [-1.9 to 1.7]
<b>All three cohorts together</b>		4.4 (3.9-4.9)	4.7 (4.1-5.4)	-0.3 [-1.1 to 0.4]
<b>Inter99</b>				
	AusDiab	3.5 (2.9-4.3)	5.5 (4.3-7.1)	-2.0 [-3.8 to -0.5]
	Inter99	4.8 (3.6-6.3)	5.0 (3.6-6.8)	-0.2 [-2.3 to 1.7]
	D.E.S.I.R.	4.0 (3.1-5.3)	5.4 (3.8-7.5)	-1.4 [-4.6 to 0.5]
<b>All three cohorts together</b>		3.9 (3.4-4.5)	5.6 (4.7-6.7)	-1.7 [-2.9 to -0.6]
<b>D.E.S.I.R.</b>				
	AusDiab	4.1 (3.5-4.8)	5.4 (4.4-6.5)	-1.3 [-2.5 to -0.06]
	Inter99	4.4 (3.5-5.6)	4.5 (3.2-6.2)	-0.1 [-2.1 to 1.5]
	D.E.S.I.R.	4.6 (3.6-6.0)	4.8 (3.6-6.5)	-0.2 [-2.4 to 1.4]
<b>All three cohorts together</b>		4.3 (3.8-4.8)	5.2 (4.5-6.1)	-0.9 [-1.8 to -0.06]
<b>HbA1c not adjusted</b>				
	AusDiab	4.1 (3.5-4.9)	5.0 (4.1-6.1)	-0.8 [-2.1 to 0.17]
	Inter99	4.8 (3.6-6.3)	5.0 (3.6-6.8)	-0.2 [-2.3 to 1.7]
	D.E.S.I.R.	4.6 (3.6-6.0)	4.8 (3.6-6.5)	-0.2 [-2.4 to 1.4]

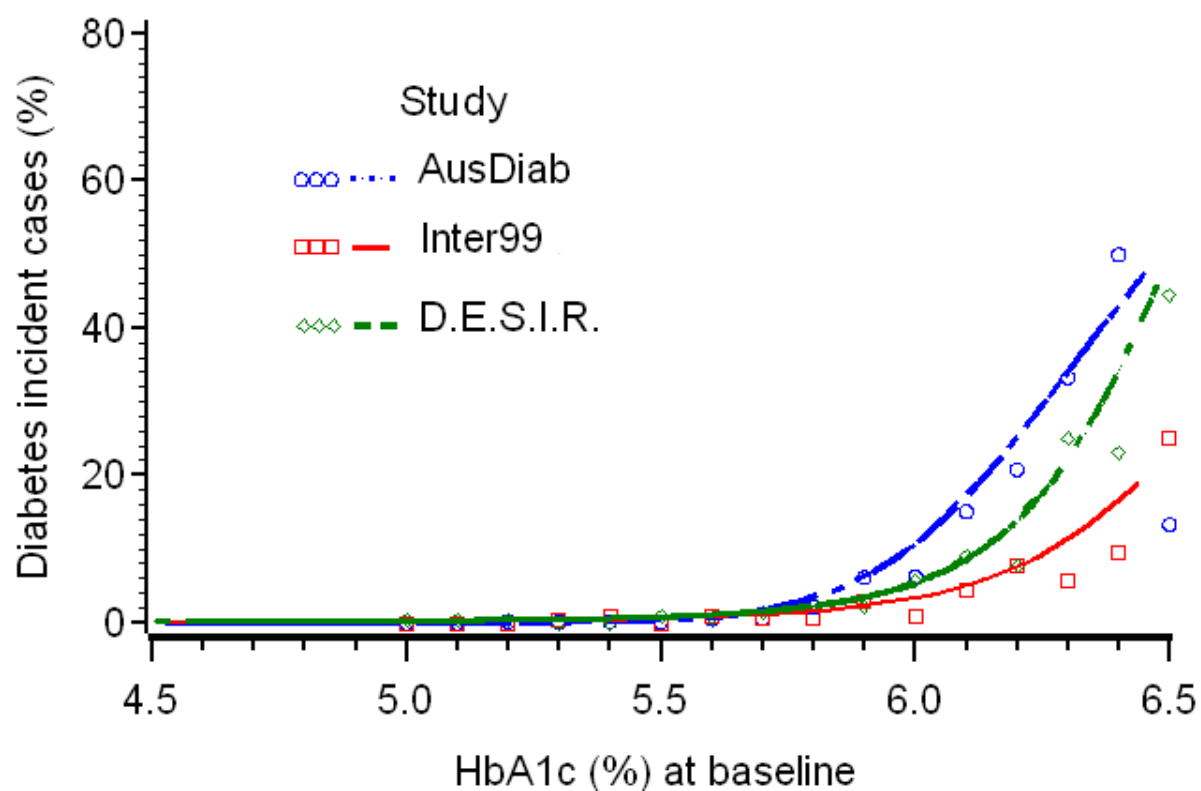
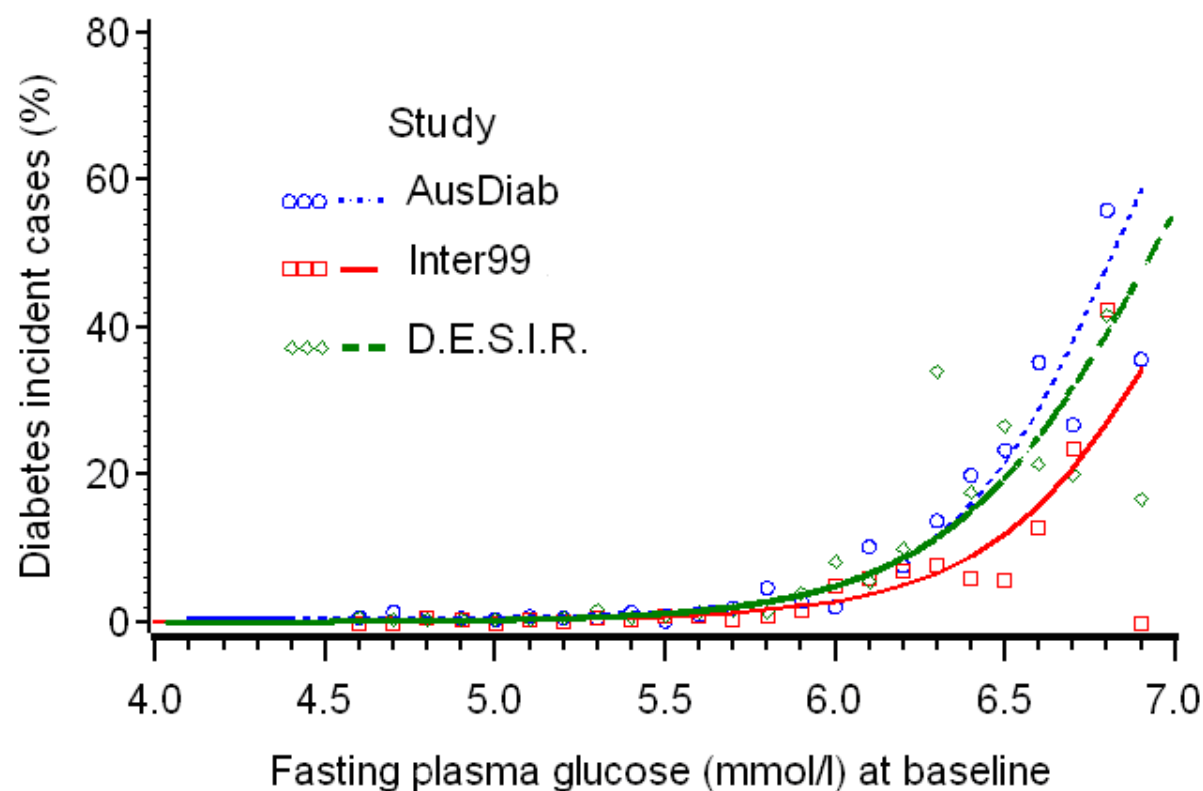
**Supplementary Figure 1A.** Incident diabetes, in the three studies: AusDiab, Inter99 and D.E.S.I.R., according to fasting plasma glucose and HbA1c at inclusion, when HbA1c is adjusted on AusDiab.



**Supplementary Figure 1B.** Incident diabetes, in the three studies: AusDiab, Inter99 and D.E.S.I.R., according to fasting plasma glucose and HbA1c at inclusion, when HbA1c is adjusted on Inter99.



**Supplementary Figure 1C.** Incident diabetes, in the three studies: AusDiab, Inter99 and D.E.S.I.R., according to fasting plasma glucose and HbA1c at inclusion, when HbA1c is adjusted on D.E.S.I.R..



**Supplementary Figure 1D.** Incident diabetes, in the three studies: AusDiab, Inter99 and D.E.S.I.R., according to fasting plasma glucose and HbA1c at inclusion, when we used the HbA1c original data for each study.

