# ANNEX A

# Supplementary Figures and Tables

# 1. Supplementary tables and figures associated with Chapters 2 and 3

	Name of the survey	Organisation undertaking the survey	Type of survey	Years used in the analyses
Australia	National Health Survey	Australian Bureau of Statistics	Health interview survey	1989, 1995, 2001, 2004/05
Austria	Mikrozensus + Health Interview Survey	Statistics Austria	Health interview survey	1983, 1991, 1999, 2006/07
Canada	National Population Health Survey + Canadian Community Health Survey	Statistics Canada	Health interview survey	1994/95, 2000/01, 2003, 2005
England	Health Survey for England (HSE)	Office for Population Censuses and Surveys (1991-93), then the Joint Survey Unit of the National Centre of Social Research and the Department of Epidemiology and Public Health at University College London (since 1994)	Health examination survey	1991 to 2007
France	Enquête Santé et Protection Sociale	Institute for Research and Information in Health Economics	Health interview survey	1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2004, 2006
Hungary	National Health Interview survey	Johan Béla National Center of Epidemiology	Health interview survey	2000, 2003
Italy	Condizione di Salute	Istituto Nazionale di Statistica	Health interview survey	1994/95, 2000, 2005
Korea	Korean National Health and Nutrition Examination Survey (KNHANES)	Jointly carried out by the Korea Institute for Health and Social Affairs and the Korea Health Industry Development Institute	Health examination survey	1998, 2001, 2005
Spain	Encuesta Nacional de Salud de Espana	Ministry of Health and Consumers in collaboration with the Centre of Sociological Investigations	Health interview survey	1993, 1995, 1997, 2001, 2003, 2006
Sweden	Swedish Level of Living Survey (LNU)	Statistics Sweden	Health interview survey	1991, 2000
United States- NHANES	National Health and Nutrition Examination Survey (NHANES)	National Center for Health Statistics	Health examination survey	NHANES I, NHANES II, NHANES III (1988-94), 1999/2000, 2001/02, 2003/04, 2005/06, 2007/08
United States- NHIS	National Health Interview Survey (NHIS)	National Center for Health Statistics	Health interview survey	1997 to 2005

# Table A.1. Description of the national health survey data used in the analysesreported in Chapters 2 and 3

Figures A.1 and A.2 present odds ratios of obesity and overweight, respectively, by socio-economic condition, and the associated confidence intervals. Mixed patterns emerge in men with a risk of obesity increasing in lower socio-economic groups in Austria and France and decreasing in countries such as Canada and Korea (Figure A.1, Panel A), and a risk of being overweight increasing in Austria and decreasing in Australia, Canada, Korea and the Unites States (Figure A.2, Panel A). Social gradients are found more consistently in women (Panel B in both figures).





Note: SES is based on household income in Australia, Canada, Korea and the United States, and on occupation-based social class in other countries.

Source: OECD analysis of national health survey data. StatLink as http://dx.doi.org/10.1787/888932316210







StatLink ans http://dx.doi.org/10.1787/888932316229

Figures A.3 and A.4 present odds ratios of obesity and overweight, respectively, by education level, and the associated confidence intervals. The risks of obesity and overweight increase at lower levels of education in both men and women, except in men in Korea and in the United States (overweight only). Gradients are generally larger in women (Panel B in both figures) than in men (Panel A, both figures).



Figure A.3. Obesity by education level, selected OECD countries



Note: The bar of the upper confidence interval is truncated for Korea. Its value is 8.4. Source: OECD analysis of national health survey data.

StatLink ans http://dx.doi.org/10.1787/888932316248



Figure A.4. Overweight by education level, selected OECD countries



### 2. Supplementary tables and figures associated with Chapter 6

Table A.2 provides a list of the main input parameters used in the model-based analyses presented in Chapter 6, along with references to the respective sources. References are listed at the bottom of the table.

# Table A.2. Main input parameters used in CDP model-based analyses and relevant sources

Decometoro	References							
Parameters –	All other countries	Japan						
RRa of incidence of IHD relative to high blood pressure		lim <i>et al</i> (2007)						
RRa of incidence of IHD relative to high cholesterol								
RRa of incidence of IHD relative to diabetes	ven Beel	t cl (2000)	Healthy Japan 21					
RRa of incidence of IHD relative to obesity	van Baai e	van Baal <i>et al.</i> (2008)						
RRa of fatality of IHD relative to high blood pressure	Hu	et al. (2005b); Stevens et al. (2004); Hart et al. (1999	)					
RRa of fatality of IHD relative to high cholesterol		Hart et al. (1999); Boshuizen et al. (2007)						
RRa of fatality of IHD relative to diabetes	Hu <i>et al.</i> (	2005a); Hu <i>et al.</i> (2006); Hu <i>et al.</i> (2005b); Hart <i>et al.</i>	(1999)					
RRa of fatality of IHD relative to obesity		Batty et al. (2006); Pardo Silva et al. (2006)						
RRa of incidence of stroke relative to high blood pressure								
RRa of incidence of stroke relative to high cholesterol		Lim <i>et al.</i> (2007)						
RRa of incidence of stroke relative to diabetes								
RRa of incidence of stroke relative to obesity	van Baal <i>e</i>	Healthy Japan 21						
RRa of fatality of stroke relative to high blood pressure	Stevens	2003)						
RRa of fatality of stroke relative to high cholesterol	Boshuizen et al. (2007); Menotti et al. (2003)							
RRa of fatality of stroke relative to diabetes	Hu et al. (2005a); Wannamethee et al. (2004)							
RRa of fatality of stroke relative to obesity	Batty et al. (2006): Pardo Silva et al. (2006)							
RRa of incidence of cancer relative to fibre consumption		Lock et al. (2005)						
RRa of incidence of cancer relative to obesity		van Baal <i>et al.</i> (2008)						
RRa of fatality of cancer relative to fibre consumption	Skulado	ottir <i>et al.</i> (2006); Pierce <i>et al.</i> (2007); Jansen <i>et al.</i> (1	999)					
RRa of fatality of cancer relative to obesity		Calle et al. (2003)						
RR of high cholesterol relative to obesity		DECD calculculations on Health Survey for England						
RR of high systolic blood pressure relative to obesity		DECD calculculations on Health Survey for England						
RR of diabetes relative to obesity		van Baal <i>et al.</i> (2008)						
RR of obesity relative to fat diet			NIPH calculations on National Health and Nutilion Survey in Japan					
RR of obesity relative to physical activity	OECD calculations on US National Health and Nutrition Examination Survey	PHAC calculations on Canadian Community Health Survey	NIPH calculations on National Health and Nutilion Survey in Japan					
RR of obesity relative to fibre consumption			NIPH calculations on National Health and Nutilion Survey in Japan					
Factors for disability-adjusted life years		Lopez et al. (2006)						

## Table A.2. Main input parameters used in CDP model-based analyses and relevant sources (cont.)

Parametera	References							
Parameters	Canada	England	Italy					
Starting population distribution	Statistics Canada	Office of National statistics	ISTAT					
Total mortality	Statistics Canada	Office of National statistics	ISTAT					
Incidence of IHD	Lopez <i>et al.</i> (2006)	OECD calculations using Dismod II	Gruppo di Ricerca del Progetto Registro per gli Eventi Coronarici e Cerebrovascolari, 2005					
Prevalence of IHD	PHAC calculations using DISMOD II	MoH calculations on Health survey for England	OECD calculations using Dismod II					
Mortality of IHD	Statistics Canada, Vital Statistics 2005	Office of National statistics	OECD calculations on database ISTAT Cause di Morte					
Incidence of stroke	Lopez et al. (2006)	OECD calculations using Dismod II	Palmieri <i>et al.</i> , 2009					
Prevalence of stroke	PHAC calculations using DISMOD II	MoH calculations on Health survey for England	OECD calculations using Dismod II					
Mortality of stroke	tality of stroke Statistics Canada, Vital Statistics 2005		OECD calculations on database ISTAT Cause di Morte					
Incidence of cancer	Statistics Canada 2006	Office of National statistics	IARC					
Prevalence of cancer	PHAC calculations using DISMOD II	OECD calculations using Dismod II	OECD calculations using Dismod II					
Mortality of cancer	Statistics Canada, Vital Statistics 2005	Office of National statistics	WHO cancer mortality database					
Prevalence of low physical activity	PHAC calculations on Canadian Community Health Survey, 2007/08 share file	OECD calculations on Eurol	parometer 183-6/wave 58.2					
Prevalence of low fibre consumption	PHAC calculations on Canadian Community Health Survey, 2004 share file, wave 2	MoH calculations on Health survey for England	OECD calculations on Leclercq et al. (2009)					
Prevalence of fat consumption	PHAC calculations on Canadian Community Health Survey, 2004 share file, wave 2	MoH calculations on Health survey for England	OECD calculations on FAOStat					
Incidence of obesity	PHAC calculations using DISMOD II	OECD calculations using Dismod II	OECD calculations using Dismod II					
Prevalence of obesity	PHAC calculations on Canadian Community Health Survey 2007/08 share file	MoH calculations on Health survey for England	OECD calculations on Indagine Multiscopo					
Incidence of diabetes	PHAC calculations using DISMOD II	OECD calculations using Dismod II	OECD calculations using Dismod II					
Prevalence of diabetes	PHAC calculations on National Diabetes Surveillance System	MoH calculations on Health survey for England	OECD calculations on Health for All – Italy					
Incidence of high systolic pressure	PHAC calculations using DISMOD II	OECD calculations using Dismod II	OECD calculations using Dismod II					
Prevalence of high systolic pressure	Lawes et al. (2004a)	MoH calculations on Health survey for England	OECD calculations on Indagine Multiscopo					
Incidence of high cholesterol	PHAC calculations using DISMOD II	OECD calculations using Dismod II	OECD calculations using Dismod II					
Prevalence of high cholesterol	Lawes et al. (2004b)	British heart foundation	OECD calculations on Progetto Cuore					

ANNEX A

# Table A.2. Main input parameters used in CDP model-based analyses and relevant sources (cont.)

Devenenteve	References						
Parameters	Japan	Mexico					
Starting population distribution	NIPH calculations on Vital Statistics in Japan	CONAPO					
Total mortality	NIPH calculations on Vital Statistics in Japan	SS-DGIS 2007					
Incidence of IHD	Yoshida <i>et al.</i> (2005)	MoH'S calculations on SS-DGIS-SAEH 2004-08; IMSS 2004-05					
Prevalence of IHD	NIPH calculations on Patient Survey in Japan	OECD calculations using Dismod II					
Mortality of IHD	OECD calculations employing Dismod II	SS-DGIS-SEED 2004-08					
Incidence of stroke	Nagura <i>et al.</i> (2005)	WHO (2008)					
Prevalence of stroke	NIPH calculations on Patient Survey in Japan	OECD calculations using Dismod II					
Mortality of stroke	OECD calculations employing Dismod II	SS-DGIS-SEED 2004-08					
Incidence of cancer	NIPH calculations on Cancer Statistics in Japan	MoH'S calculations on SS-DGIS-SAEH 2004-08; IMSS 2004-05					
Prevalence of cancer	NIPH calculations on Cancer Statistics in Japan	OECD calculations using Dismod II					
Mortality of cancer	OECD calculations employing Dismod II	SS-DGIS-SEED 2004-08					
Prevalence of low physical activity	NIPH calculations on National Health and Nutilion Survey in Japan	MoH's calculations based on National Health and Nutrition Survey in Mexico 2006					
Prevalence of low fibre consumption	NIPH calculations on National Health and Nutilion Survey in Japan	MoH's calculations based on National Health and Nutrition Survey in Mexico 2006					
Prevalence of fat consumption	NIPH calculations on National Health and Nutilion Survey in Japan	MoH's calculations based on Mundo-Rosas <i>et al.</i> (2009); Rodriguez-Ramirez <i>et al.</i> (2009); Barquera <i>et al.</i> (2009)					
Incidence of obesity	OECD calculations using Dismod II	OECD calculations using Dismod II					
Prevalence of obesity	NIPH calculations on National Health and Nutilion Survey in Japan	Olaiz-Fernández et al. (2006); Shamah-Levy et al. (2007)					
Incidence of diabetes	OECD calculations employing Dismod II	Olaiz et al. (2003); Villalpando et al. (2010)					
Prevalence of diabetes	NIPH calculations on National Health and Nutilion Survey in Japan	Villalpando <i>et al.</i> (2010)					
Incidence of high systolic pressure	OECD calculations employing Dismod II	OECD calculations using Dismod II					
Prevalence of high systolic pressure	NIPH calculations on National Health and Nutilion Survey in Japan	Barquera et al. (2010)					
Incidence of high cholesterol	OECD calculations employing Dismod II	OECD calculations using Dismod II					
Prevalence of high cholesterol	NIPH calculations on National Health and Nutilion Survey in Japan	Aguilar-Salinas et al. (2010)					

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Table A.3 shows the cost per capita (per unit of population) and the potential coverage of the interventions assessed in the OECD/WHO analysis. Costs include only the costs of delivering the interventions, and are expressed in USD PPPs. Coverage figures reflect the proportions of national populations which would be given the opportunity to benefit from preventive interventions, without accounting for individual uptake rates, estimated separately.

Table A.4 shows the magnitude of health gains associated with preventive interventions. This is expressed as a ratio between the total number of statistical lives lived during the course of the simulation analysis and the total number of DALYs/LYs gained during the course of the same simulation. The figures in each box of Table A.3 (*n*) should be interpreted as: "The intervention generates a gain of one DALY/LY for every *n* individuals, over their lifetime". The lower the value of *n*, the larger the effectiveness of the intervention.

Figure A.5 shows the cumulative effectiveness of interventions over time. The vertical axis shows the number of disability-adjusted life years gained per million population, while the horizontal axis corresponds to the time frame of the analysis. DALYs are discounted at a 3% rate.

Figure A.6 describes the cumulative impact of interventions on health expenditure over time. The vertical axis shows the cumulative impact of interventions on health expenditures in terms of USD PPPs per capita. The horizontal axis reflects the time frame of the analysis. Figures are discounted at a 3% rate.

Figure A.7 shows the cumulative effectiveness of a multiple intervention strategy over time in the five countries concerned. The vertical axis shows the number of disability-adjusted life years gained per million population, while the horizontal axis corresponds to the time frame of the analysis. DALYs are discounted at a 3% rate.

Figure A.8 describes the cumulative impact of a multiple intervention strategy on health expenditure over time in the five countries concerned. The vertical axis shows the cumulative impact of interventions on health expenditure in terms of USD PPPs per capita, while the horizontal axis corresponds to the time frame of the analysis. Figures are discounted at a 3% rate.

Figure A.9 presents the cost-effectiveness of a multiple intervention strategy over time in the five countries concerned. The vertical axis shows cost-effectiveness ratios in terms of USD PPPs per DALY gained, while the horizontal axis corresponds to the time frame of the analysis. Both costs and DALYs are discounted at a 3% rate.

		School- based interventions	Worksite interventions	Mass media campaigns	Fiscal measures	Physician counselling	Physician- dietician counselling	Food advertising regulation	Food advertising self- regulation	Food labelling	Multiple- intervention strategy
Canada	Target as % of population	2.4%	15.6%	78.3%	100.0%	12.7%	12.7%	21.0%	21.0%	100.0%	100.0%
	Cost/capita (USD PPPs)	1.78	5.59	1.36	0.13	9.26	19.74	0.55	0.04	1.10	24.03
England	Target as % of population	2.3%	15.7%	78.5%	100.0%	14.7%	14.7%	20.4%	20.4%	100.0%	100.0%
	Cost/capita (USD PPPs)	1.02	3.49	1.85	0.09	6.52	13.80	0.24	0.02	0.84	17.52
Italy	Target as % of population	1.9%	8.2%	82.9%	100.0%	10.2%	10.2%	16.2%	16.2%	100.0%	100.0%
	Cost/capita (USD PPPs)	1.36	2.73	1.56	0.09	6.82	14.42	0.42	0.02	0.93	18.29
Japan	Target as % of population	1.9%	12.7%	83.6%	100.0%	5.8%	5.8%	15.6%	15.6%	100.0%	100.0%
	Cost/capita (USD PPPs)	1.41	4.28	0.84	0.09	4.32	8.82	0.46	0.02	0.99	12.07
Mexico	Target as % of population	4.2%	12.6%	63.5%	100.0%	14.1%	14.1%	34.7%	34.7%	100.0%	100.0%
	Cost/capita (USD PPPs)	1.78	2.48	0.65	0.03	6.42	13.61	0.14	0.01	0.33	16.38

#### Table A.3. Costs and coverage of selected preventive interventions

Note: Figures should be interpreted as follows: The intervention generates a gain of one DALY/LY for every N individuals over their lifetime. The multiple-intervention strategy is a sum of the following: Food labelling; food advertising self-regulation; school-based intervention; mass media campaign; and physician-dietician counselling in primary care.

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2.

StatLink and http://dx.doi.org/10.1787/888932316571

#### Table A.4. Magnitude of health gains associated with preventive interventions (population per DALY/LY gained)

	Disability-adjusted life years				Life years					
-	Canada	England	Italy	Japan	Mexico	Canada	England	Italy	Japan	Mexico
School-based interventions	98	105	127	62	235	197	272	237	101	647
Worksite interventions	38	44	70	37	107	63	85	104	46	272
Mass media campaigns	97	79	93	81	172	127	130	100	101	398
Fiscal measures	26	31	26	22	83	43	69	37	40	185
Physician counselling	31	25	33	37	50	50	57	51	49	142
Physician-dietician counselling	9	6	8	10	13	14	17	12	14	41
Food advertising regulation	35	29	94	33	98	57	52	134	40	181
Food advertising self-regulation	64	55	180	59	181	100	95	260	74	340
Food labelling	55	47	47	51	131	82	80	61	63	233
Multiple-intervention strategy	7	4	6	10	11	10	9	9	9	30

Note: Figures should be interpreted as follows: The intervention generates a gain of one DALY/LY for every N individuals, over their lifetime. The multiple-intervention strategy is a sum of the following: Food labelling; food advertising self-regulation; school-based intervention; mass media campaign; and physician-dietician counselling in primary care.

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2.

StatLink ms http://dx.doi.org/10.1787/888932316590



#### Figure A.5. Cumulative DALYs saved over time (per million population)

Worksite interventions

Fiscal measures

School-based interventions

Mass media campaigns

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msp http://dx.doi.org/10.1787/888932316286



Figure A.5. Cumulative DALYs saved over time (per million population) (cont.)

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msp http://dx.doi.org/10.1787/888932316286

Time (years)





#### Figure A.6. Cumulative impact on health expenditure over time



Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msp http://dx.doi.org/10.1787/888932316305



Figure A.6. Cumulative impact on health expenditure over time (cont.)



Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msp http://dx.doi.org/10.1787/888932316305



Figure A.7. Cumulative DALYs saved with a multiple-intervention strategy over time

Note: The multiple-intervention strategy is a sum of the following: food labelling; food advertising self-regulation; school-based intervention; mass media campaign; and physician-dietician counselling in primary care.

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msp http://dx.doi.org/10.1787/888932316324





Note: The multiple-intervention strategy is a sum of the following: food labelling; food advertising self-regulation; school-based intervention; mass media campaign; and physician-dietician counselling in primary care.

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink and http://dx.doi.org/10.1787/888932316343



Figure A.9. Cost-effectiveness of a multiple-intervention strategy over time

Note: The multiple-intervention strategy is a sum of the following: food labelling; food advertising self-regulation; school-based intervention; mass media campaign; and physician-dietician counselling in primary care.

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink ms http://dx.doi.org/10.1787/888932316362

Figures A.10 to A.14 illustrate average annual cost-effectiveness ratios of different interventions after they have been in place for 30 years. The vertical axis shows intervention costs in millions of USD PPPs, while the horizontal axis shows intervention effects in thousands of DALYs. Clouds of points for each intervention reflect the uncertainty surrounding cost and effect estimates. Clouds resting mostly or entirely beneath the threshold lines correspond to the interventions with the most favourable cost-effectiveness profiles.

Figures A.15 to A.19 illustrate the average annual cost-effectiveness ratios of different interventions after they have been in place for 100 years. These figures have the same characteristics as Figures A.10 to A.14.



Figure A.10. Canada: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 30 years

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. *StatLink 雪* http://dx.doi.org/10.1787/888932316381

Figure A.11. England: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 30 years



Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink mgp http://dx.doi.org/10.1787/888932316400



Figure A.12. Italy: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 30 years

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink mgP http://dx.doi.org/10.1787/888932316419





Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. *StatLink*  http://dx.doi.org/10.1787/888932316438



#### Figure A.14. Mexico: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 30 years

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. *StatLink 雪* http://dx.doi.org/10.1787/888932316457









#### Figure A.16. England: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 100 years

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. *StatLink আ3* http://dx.doi.org/10.1787/888932316495

Figure A.17. Italy: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 100 years



Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink mg http://dx.doi.org/10.1787/888932316514



Figure A.18. Japan: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 100 years

Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink mgP http://dx.doi.org/10.1787/888932316533

Figure A.19. Mexico: Probabilistic sensitivity analysis of the cost-effectiveness of interventions at 100 years



Source: CDP model-based analysis relying on input data from multiple sources, listed in Table A.2. StatLink msg http://dx.doi.org/10.1787/888932316552



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