



# Health in all policies in a changing environment: Using health impact assessment to support policies

**Laura Perez**

PhD, Scientific project leader  
Clean air, Environment, Public Health  
Swiss Tropical and Public Health Institute  
l.perez@unibas.ch

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## Outline

- ❑ Introduction: Health Impact Assessment in the context of policy-making
- ❑ Failed governance: preventing from smoke exposure in Switzerland
- ❑ The co-benefits of a HiAP thinking approach in climate change policies
- ❑ HiAP in the context of a changing environment: what would it take?

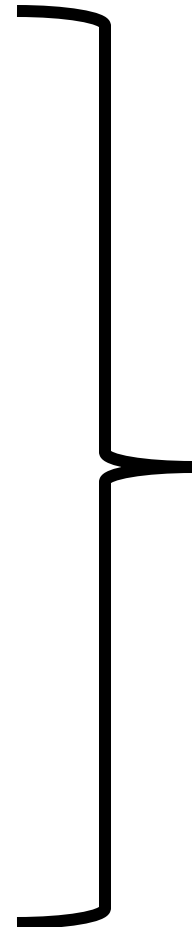


## Health in All Policies (HiAP)

- integrate health considerations into policies concerning sectors other than health
- ensure all sectors and levels of government are more accountable for policy decisions affecting health and health systems
- generate and facilitate intersectoral action for health and solutions for improved health impacts

## Health Impact Assessment (HIA)

- provide information and evidence from a health policy perspective
- improve the mechanisms and tools for taking account health implications
- analyze how policies and interventions are linked to impacts on health determinants
- inform the policy-makers working in and across all sectors



# HIA: Approaches and methods

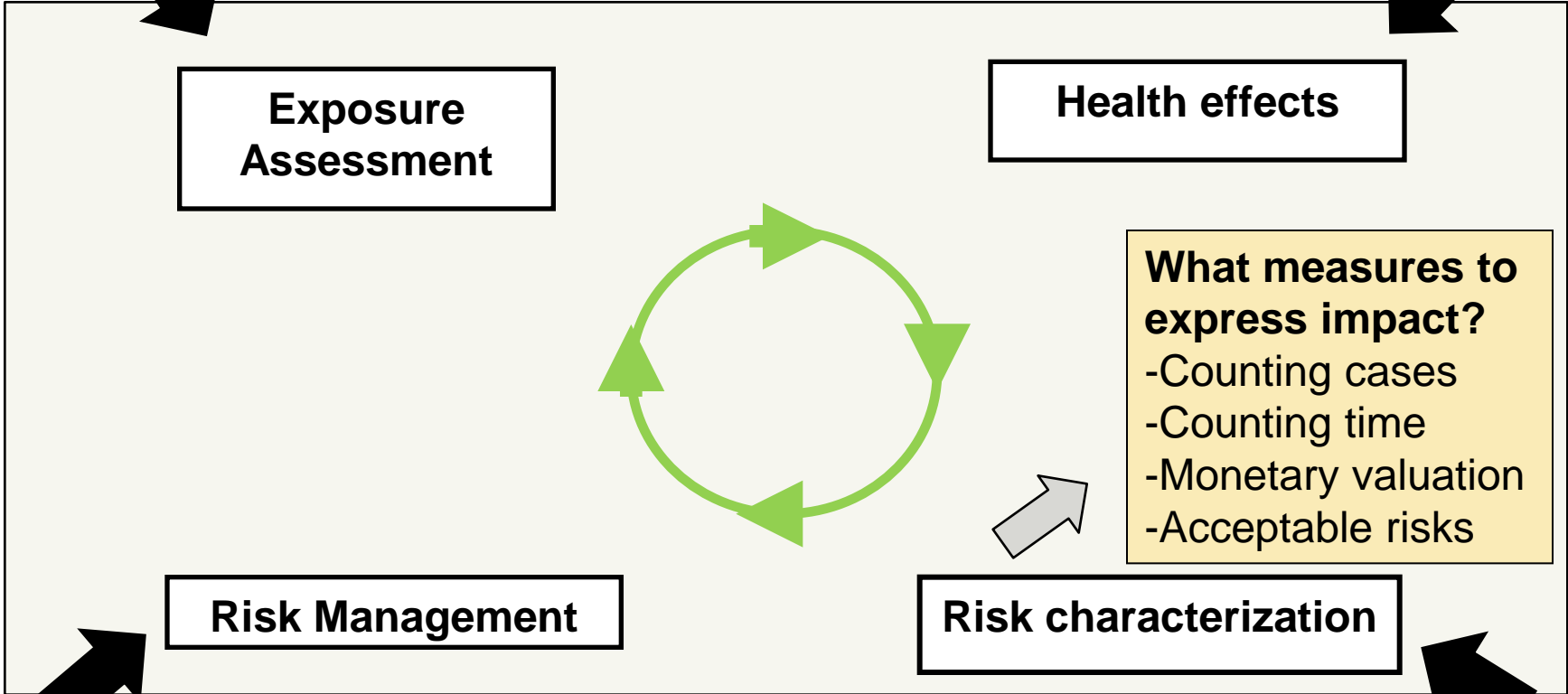


(Künzli et al. SMW 2009, adapted)

- Methods**
- Epidemiology
  - Toxicology
  - Baseline survey
  - Exposure modelling

**Screening**

**Scoping**



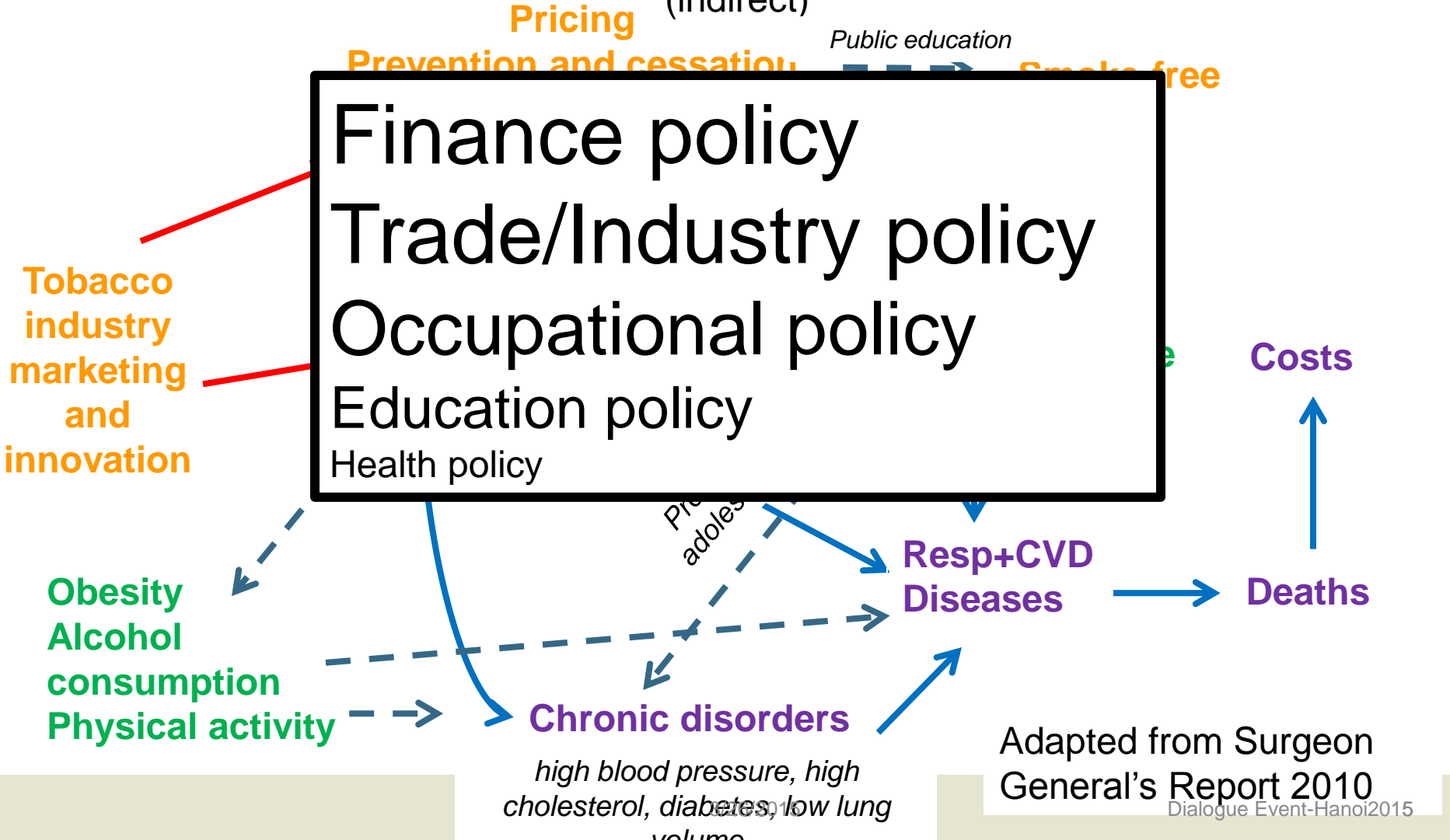
**Mitigation/adaptation**

**Prioritization**



# Forces governing tobacco use and health consequences

→ Health-protective    
 - - -> Health-protective (indirect)    
 → Health-damaging



Adapted from Surgeon General's Report 2010



# Switzerland

- Federal, democratic state
- 8 Million Inhabitants
- 26 Cantons



SwissTPH





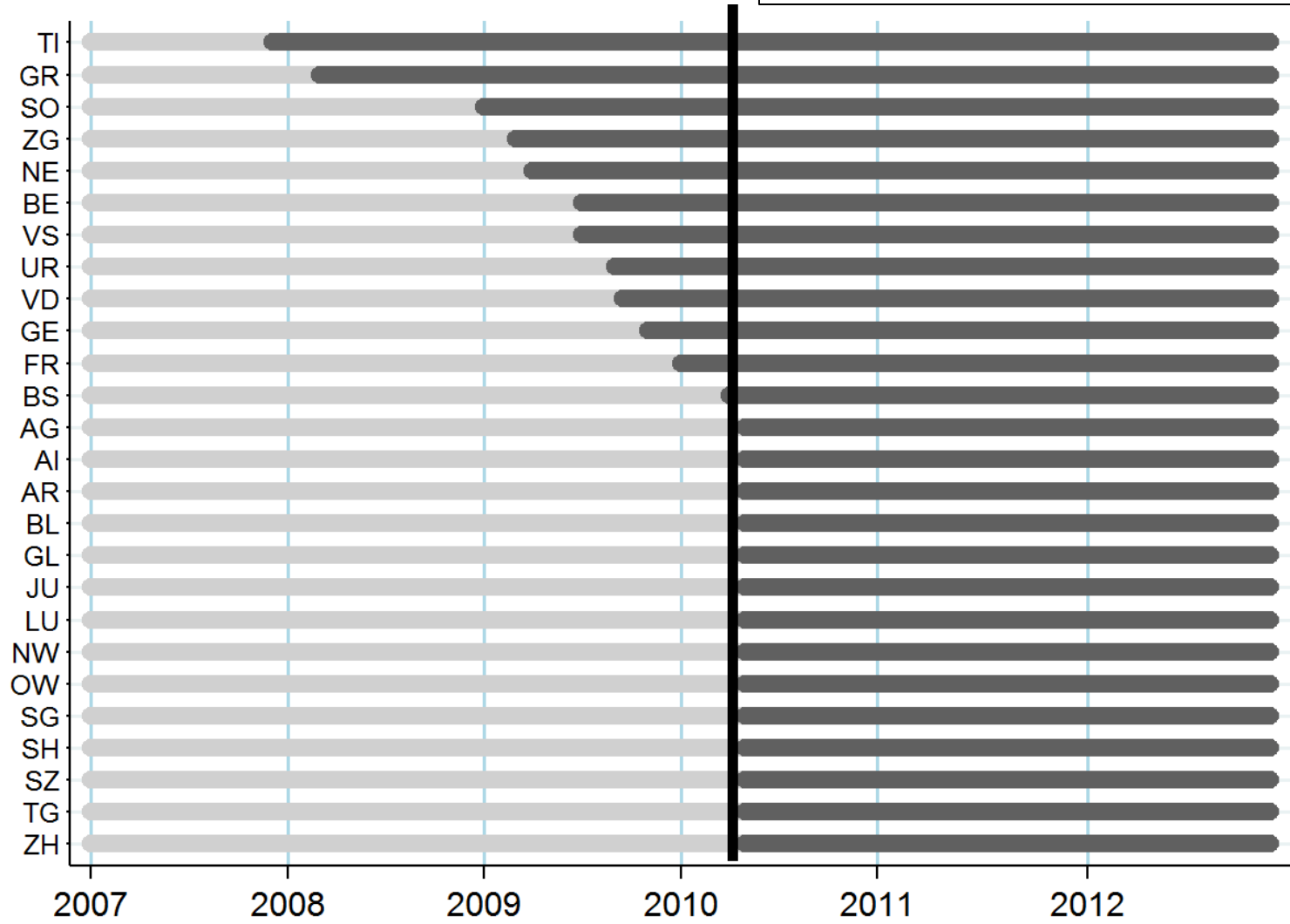
## Smoke protection in Switzerland-Peculiarity 3

### World Health Organization Tobacco Control Score (2010)

Item	Max score	CH-2010 (58/100)	Target
Price of cigarettes and tobacco products	30	15	Structural
Smoke-free work and public places	22	11	Structural
Spending on public information campaigns	15	9	Structural
Comprehensive bans on advertising and promotion	13	2	Structural
Large direct health warning labels	10	5	Structural
Pictorial health warnings	3	--	Structural
Treatment to help dependent smokers stop	10	6	Behavioural
Network of smoking cessation support and its reimbursement	4	--	Behavioural
Reimbursement of medications	2	--	Structural

# Smoke-free laws in Switzerland (Peculiarity 1)

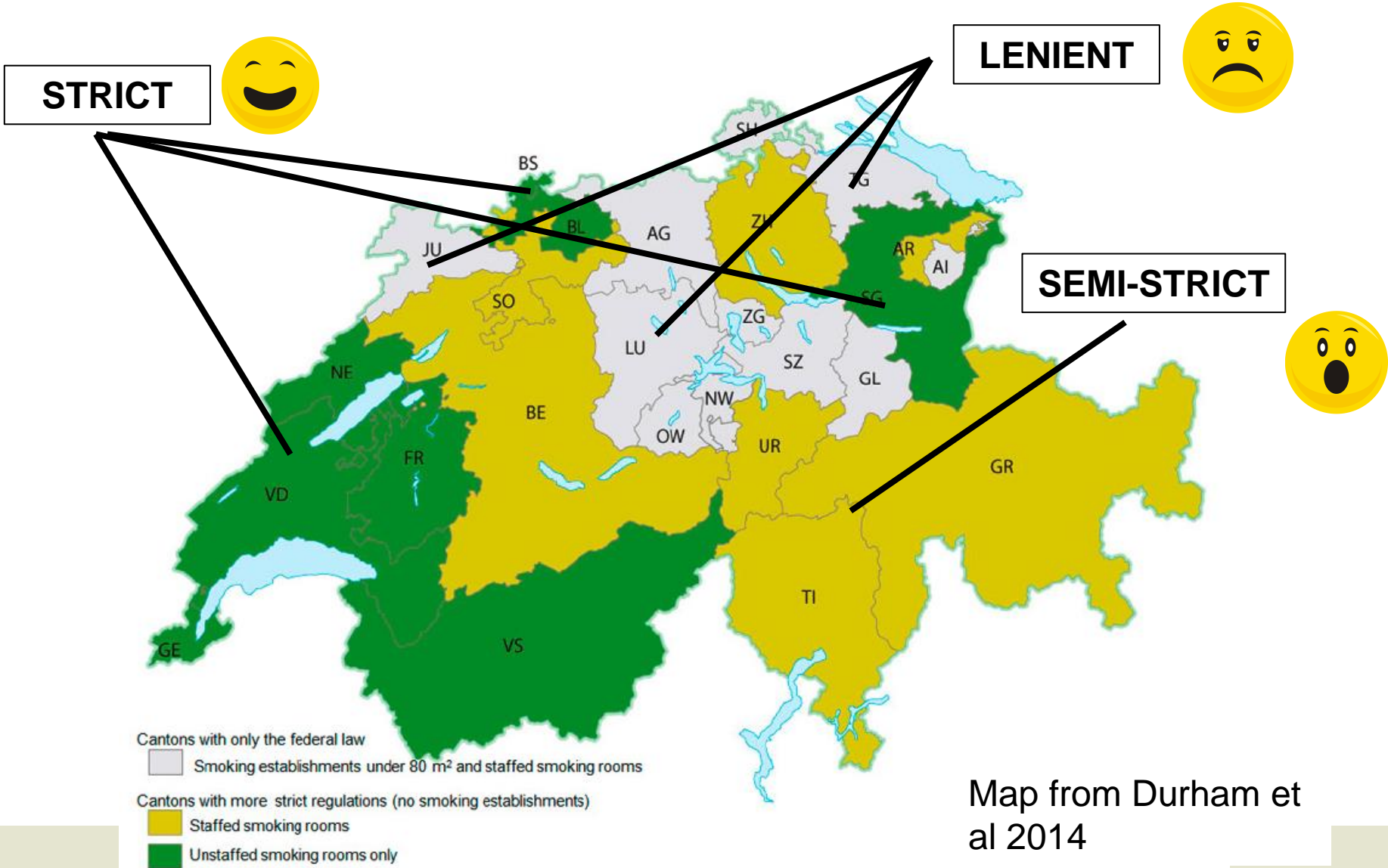
Swiss Federal Law, May 1st 2010







# Smoke-free laws in Switzerland: Peculiarity 2

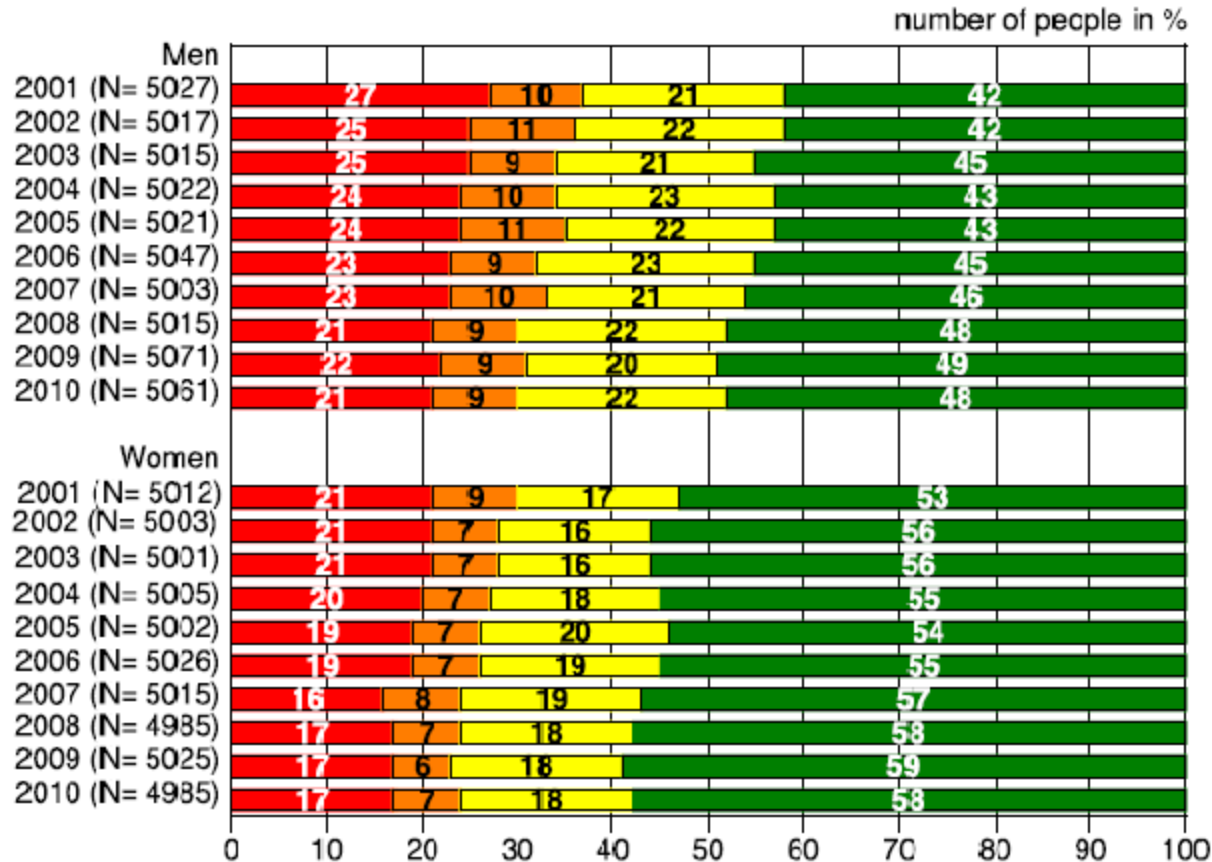


Map from Durham et al 2014



# Smoking prevalence in Switzerland in last decade

Smoking prevalence differentiated by sex between 2001-2010  
14- to 65-year-olds



■ Daily smokers    
 ■ Occasional smokers    
 ■ Former smokers    
 ■ Never smokers



# **Report in 2014: New estimates for the external costs of traffic for Switzerland in 2010 Bundesamt für Raumentwicklung**



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Bundesamt für Raumentwicklung ARE  
Office fédéral du développement territorial ARE  
Ufficio federale dello sviluppo territoriale ARE  
Uffizi federal da svilup dal territori ARE

**Externe Kosten und Nutzen des  
Verkehrs in der Schweiz**

Strassen-, Schienen-, Luft- und Schiffs-  
verkehr 2010 und Entwicklungen seit  
2005

*Years of life lost and attributable morbidity cases due to transportation noise and air pollution: a comparative risk assessment for Switzerland in 2010.*

*Danielle Vienneau,<sup>1,2,\*†</sup> Laura Perez,<sup>1,2†</sup> Christian Schindler,<sup>1,2</sup> Nicole Probst-Hensch,<sup>1,2</sup> Nino Künzli,<sup>1,2</sup> Martin Röösli<sup>1,2</sup>. · In revision*



## Which area of costs

- **Health impacts of air pollution**
- **Health impacts of noise**
- Building damages due to air pollution
- Agricultural damages due to air pollution
- Forest damages due to air pollution
- Loss of biodiversity due to air pollution
- Climate change
- Loss of nature and landscape
- Damages of soil due to toxic pollutants
- Upstream and downstream processes due to climate change and air pollution (i.e. maintenance vehicles)
- **Accidents**
- Additional costs in urban areas



# Total traffic related external costs (CHF millions)

40 billions  
Vietnamese  
Dong

CHF millions	Road transport		Public transport	Rail transport	Air transport	Water-borne transport	Total
	Priv. mot. PT and FT	Non-mot. transport					
Air-related health	1'444	-	60	185	37	29	<b>1'756</b>
Air-related building	297	-	12	38	8	6	<b>362</b>
Air-related crop shortfall	52	-	4	1	2	1	<b>59</b>
Air-related forest degradation	45	-	3	1	1	1	<b>51</b>
Air-related biodiversity loss	134	-	7	2	3	3	<b>148</b>
Noise	1'427	-	37	269	66	-	<b>1'799</b>
Climate change	1'234	-	26	4	686	8	<b>1'959</b>
Nature and the landscape	750	10	10	119	6	5	<b>900</b>
Soil degradation	113	-	5	24	-	-	<b>142</b>
Upstream and downstream processes	704	34	20	48	108	3	<b>917</b>
Accidents	980	856	7	4	2	0	<b>1'850</b>
Urban areas	109	-	3	32	-	-	<b>144</b>
Deduction of HVF share	-720	-	-	-	-	-	<b>-720</b>
<b>Total</b>	<b>6'570</b>	<b>900</b>	<b>194</b>	<b>727</b>	<b>919</b>	<b>57</b>	<b>9'367</b>
<b>Health bens - non-mot. transport</b>	<b>-</b>	<b>-1'281</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-1'281</b>



# Key Elements of HiAP

- Health, equity, and sustainability
- Co-benefits**
- Intersectoral collaboration
- Create structural or procedural change
- Engage community & stakeholders



# 康 urgenche

## **Urban Reduction of Greenhouse Gas Emissions in China and Europe**

### **7 contexts that influence consequences for health and well-being of climate change mitigation policies**



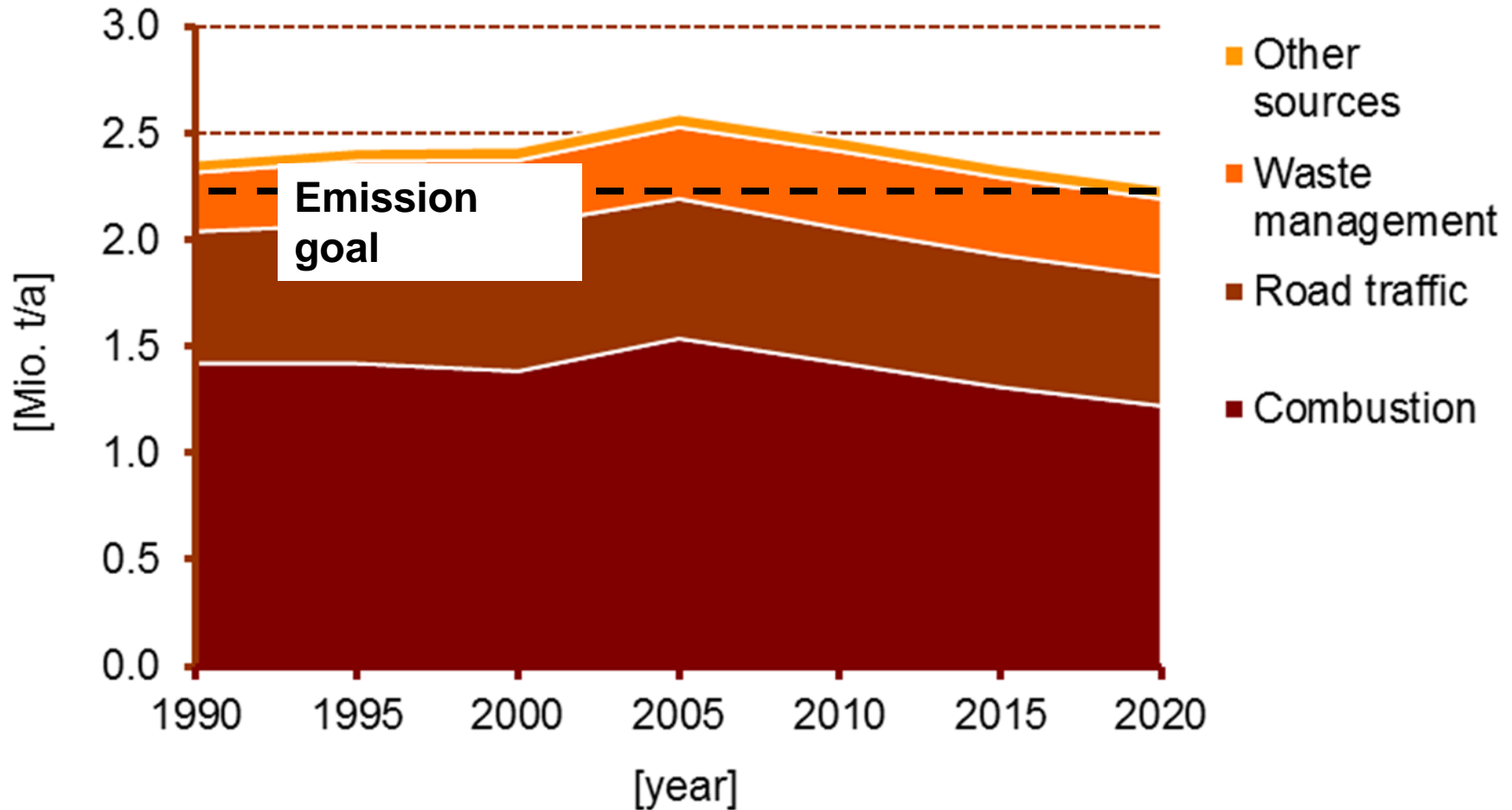
# Policy context in Basel

- ❑ At least 80% of energy production from the Canton's own, renewable resources.
- ❑ No participation in large-scale power stations (atomic, coal or gas).
- ❑ At present, 100% of electricity is from the Canton's own, renewable sources.
- ❑ Several incentive programs for private and business for energy saving



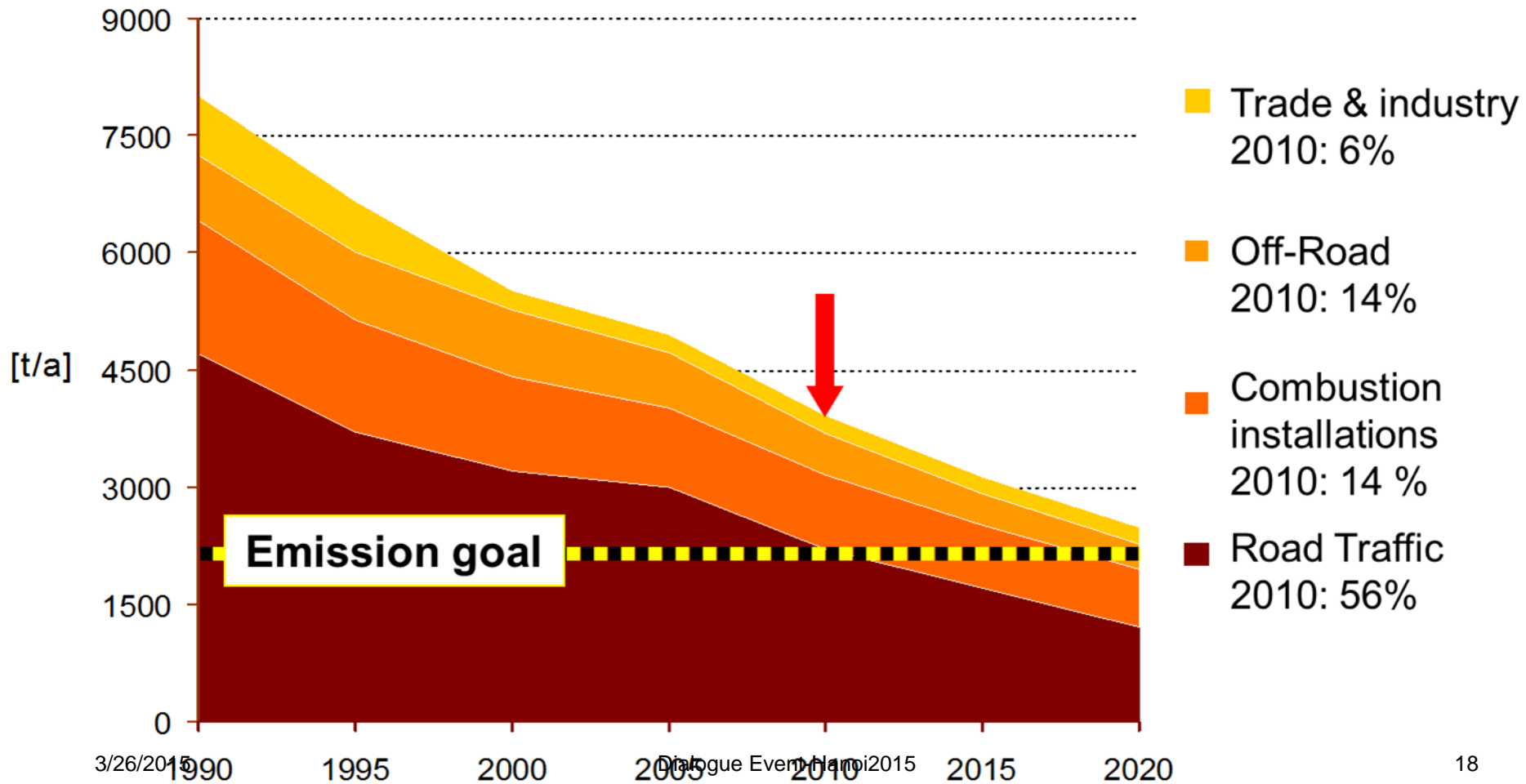
# GHG emission targets in Basel

CO<sub>2</sub>- emissionen BS/BL in tons/ year



# GHG emission targets in Basel

NOx emissions in tons/year





# Transport policies in Basel

Air pollution regulation department

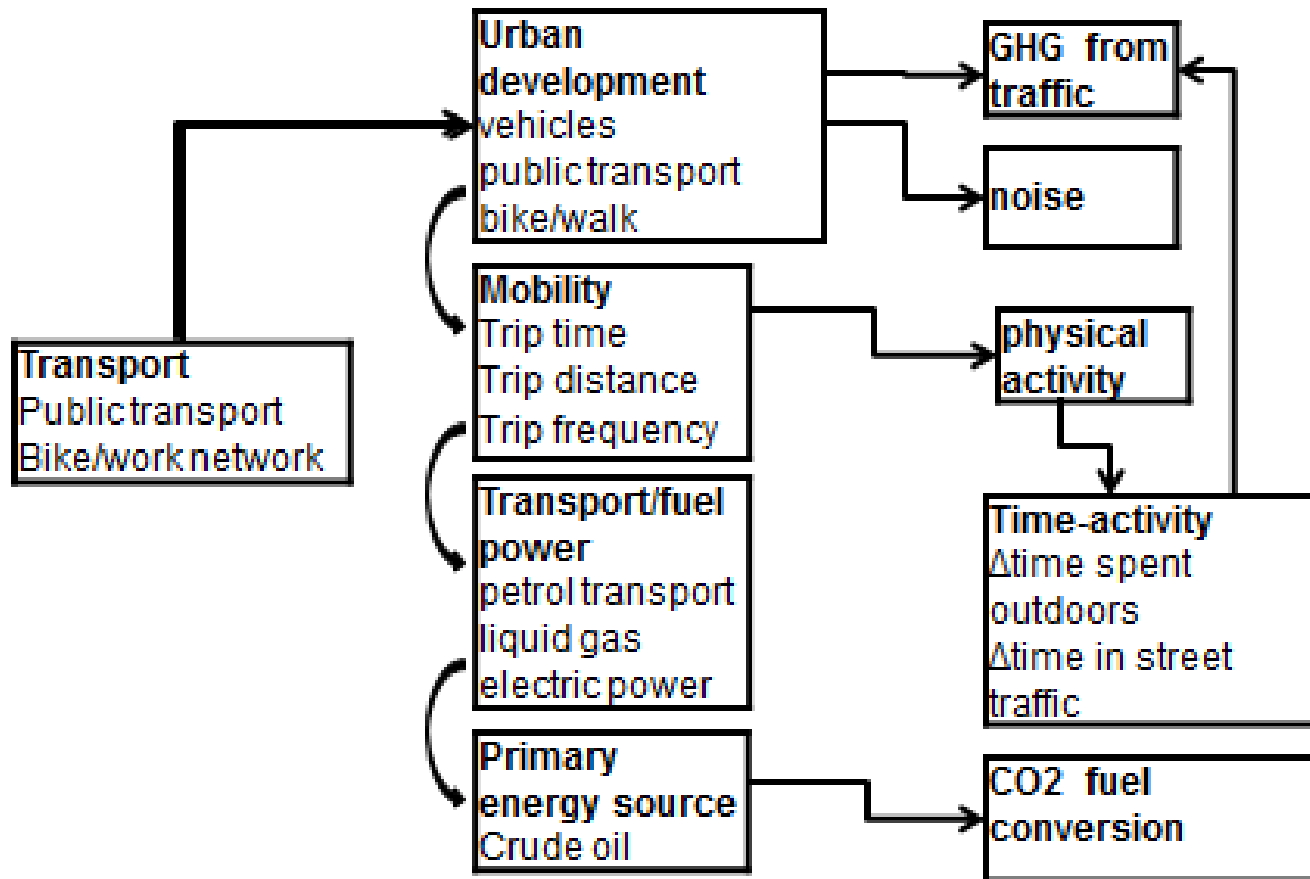
Energy department

Transport department

**HEALTH?**

traffic in urban roads by 10% by 2020

# Health Impact Model for Basel



**Policy Target**

**Action on**

**Change in population exposure**

1

# Change



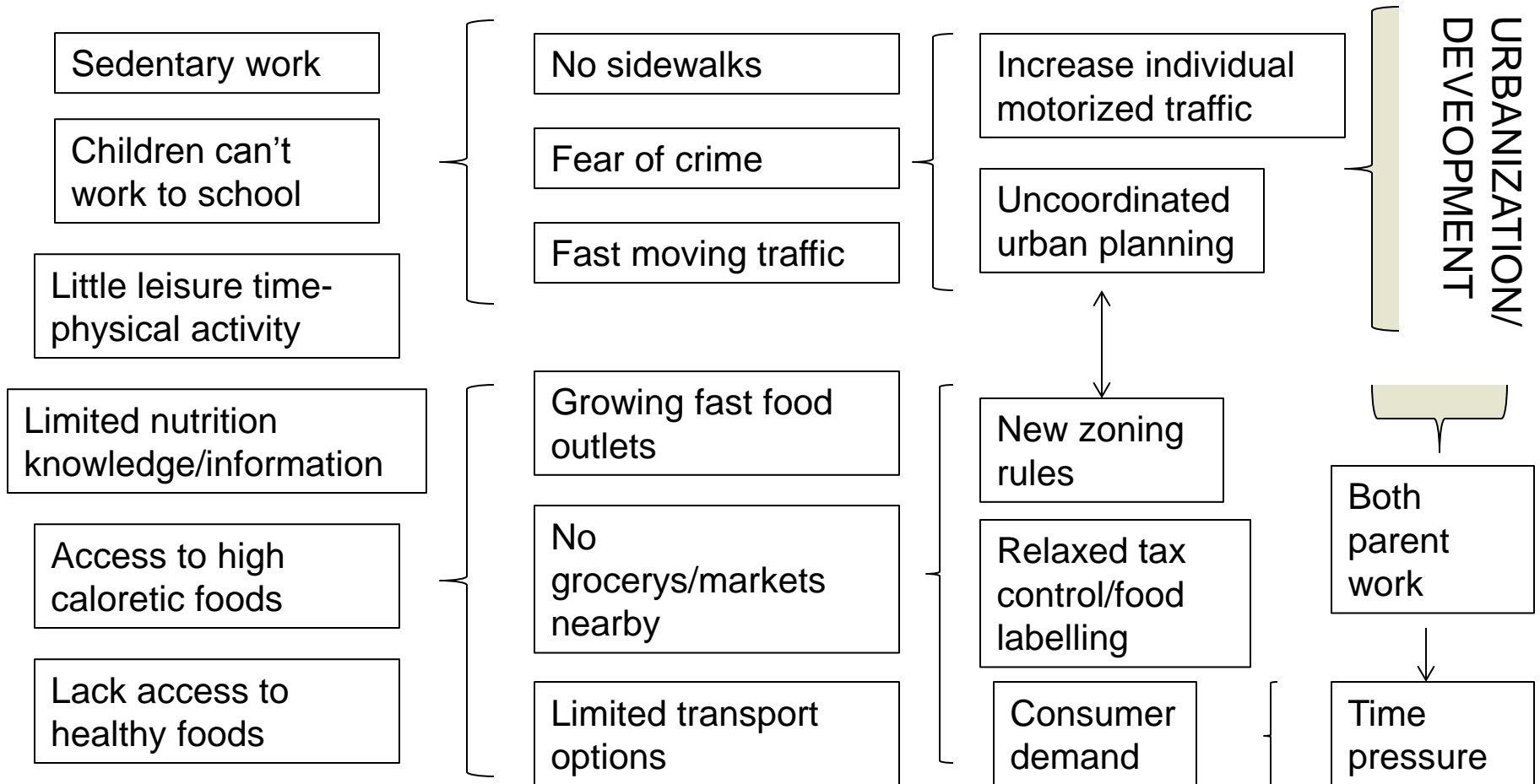
Outcome	% change from reference		
PM2.5 mortality			-3.3%
			-3.4%
			-3.3%
			-3.4%
Lden IHD mortality			0.1%
			0.0%
			-0.1%
	p50	0.2	0.0%
Biking and walking (≥20 years)	Z9	-61.43	-1.7%

**1% shift to active commuting** 

Perez et al. In revision

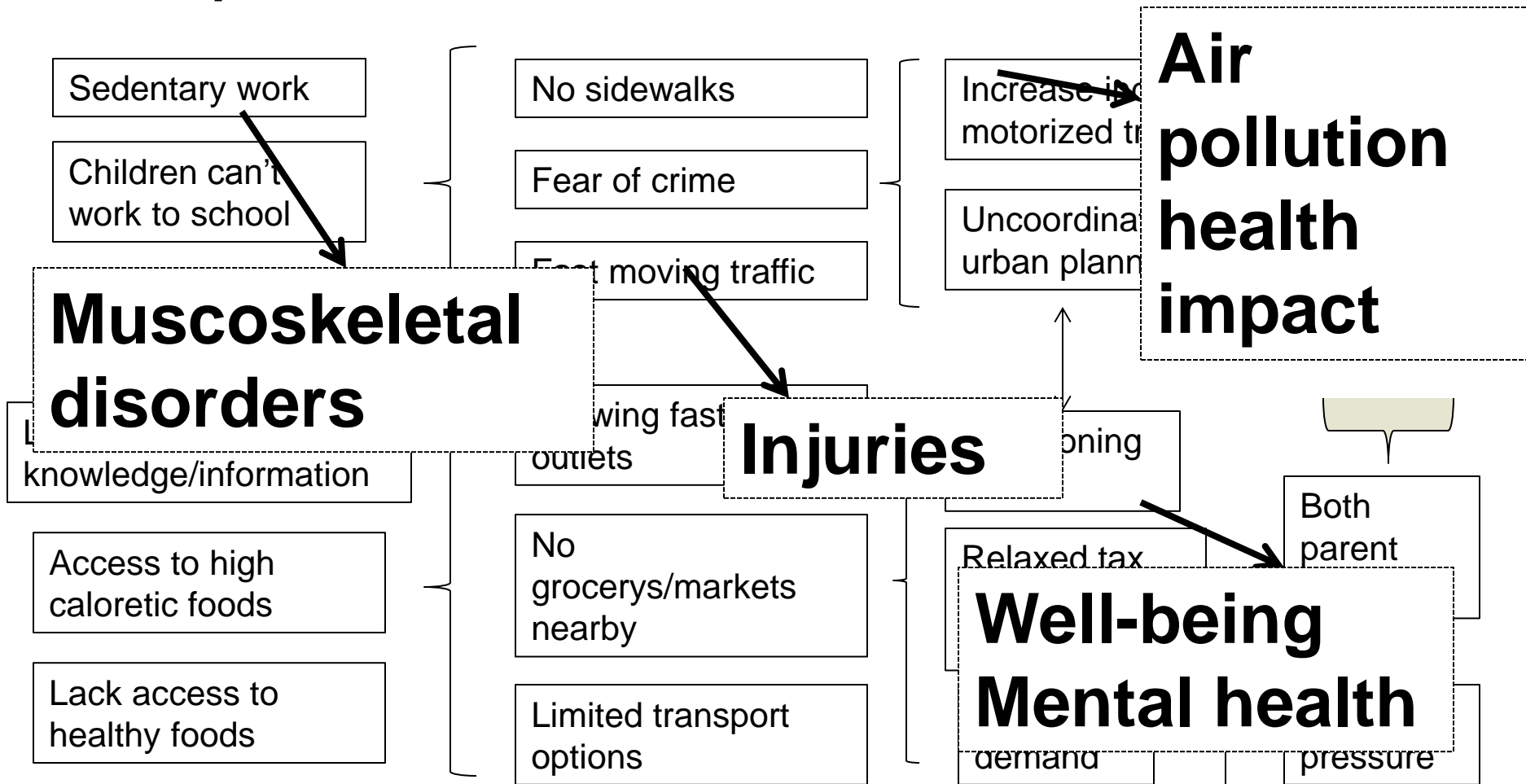
# Cause analysis in a changing environment

## Example of obese/diabetes





# Cause analysis in a changing environment Example of obese/diabetes





## Conclusions

- ❑ HIA to identify most efficient intersectoral actions
- ❑ HIA to transparently assess consequences for health of future decisions (or no decisions)
- ❑ HIA to enable establishing common information system with sector-specific data
- ❑ Decisions on economic policy have large health impacts. Health for economic competitiveness should be made visible
- ❑ HiAP: use already identified priority public health issues (i.e: air pollution and diabetes in the Vietnam context?)





# Thank you for your attention

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