# Cardiosvascular Disease Prevention through Dietary Salt Reduction

# **First PAHO Expert Group Meeting**

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Cardiovascular Diseases Prevention through Dietary Salt Reduction

9 - 10 Sentember 2009



**Cardiovascular Disease Prevention** 

**Through Dietary Salt Reduction** 





Latin American Society of Nephrology and Hypertension



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#### **Epidemiologic Transition and First Five Causes of Death in Mexico**



Correa-Rotter ISPD 05

#### **Prevalence of High Blood Pressure in Mexico by Age Groups**



## **Hypertension In Latin America**

	Prevalence (%)
Argentina	28
Brazil	27
Chile	34
Colombia	13
Costa Rica	25
Cuba	19
Ecuador	29
Mexico	31
Paraguay	35
Peru	24
Rep Dom	25
Uruguay	33
Venezuela	32

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# Table 2. Trends in awareness treatment, and control of high blood

pressure in addits age				
	NATI		UTRITION EXAMINATION SURVEY, PERCENT	
		III (PHASE 1	III (PHASE 2	
	(1976–80)	1988–91)	1991–94)	1999–2000
Awareness	51	73	68	70
Treatment	31	55	54	59
Control <sup>†</sup>	10	29	27	34

- \* High blood pressure is systolic blood pressure (SBP) ≥140 mmHg or diastolic blood pressure (DBP) ≥90 mmHg or taking antihypertensive medication.
- † SBP <140 mmHg and DBP <90 mmHg.</p>

Sources: Unpublished data for 1999–2000 computed by M. Wolz, National Heart, Lung, and Blood Institute; JNC 6.<sup>1</sup>



# LA Registry 1992-2005. Treatment of ESRD, prevalence rate, all modalities



RRT prevalence rates in Puerto Rico, Chile and Uruguay 1199, 904 and 863 pmp, respectively. Dialysis prevalence rates: 380.8 pmp (HD 272.8, DP 108), Functioning graft 97.4 pmp



### **Changes in Food Expenditure in Mexico 1986 - 2000**



Rivera-Dommarco J, Barquera et al. Public Health Nutrition, 2002: 5(1A), 113-122

#### **Potassium Intake and Hypertension**

- 1. Potassium decreased vascular responsiveness to vasopressors, such as norepinephrine, therefore inducing vasodilation.
  - Enhanced release of nitric oxide (endothelium-derived relaxing factor) by vascular endothelial cells.
- 2. Potassium may induce changes in sodium excretion: potassium depletion diminishes while potassium loading increases sodium excretion, apparently through changes in proximal or loop sodium reabsorption.

- Sodium retention probably contributes to the 5 to 7 mmHg rise in blood pressure induced by a low potassium diet in patients with essential hypertension.

- Loss of sodium probably contributes to the equivalent fall in blood pressure that can result from correction of diuretic-induced hypokalemia or from increasing potassium intake by 40 to 50 meq/day.