

Psychometric properties of the RAPS4 in Argentina, Mexico and United States.

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Alcohol in Argentina

Systematic surveillance on drug production and consumption 2002/2003

- Substance use and crime
- Substance use in school age children (12-17 years)



OBSERVATORIO
Argentino de Drogas

Alcohol in Argentina



- Main producer of wine
- 80% of wine consumed in domestic market
- Rapid increase in beer consumption

Alcohol in Argentina

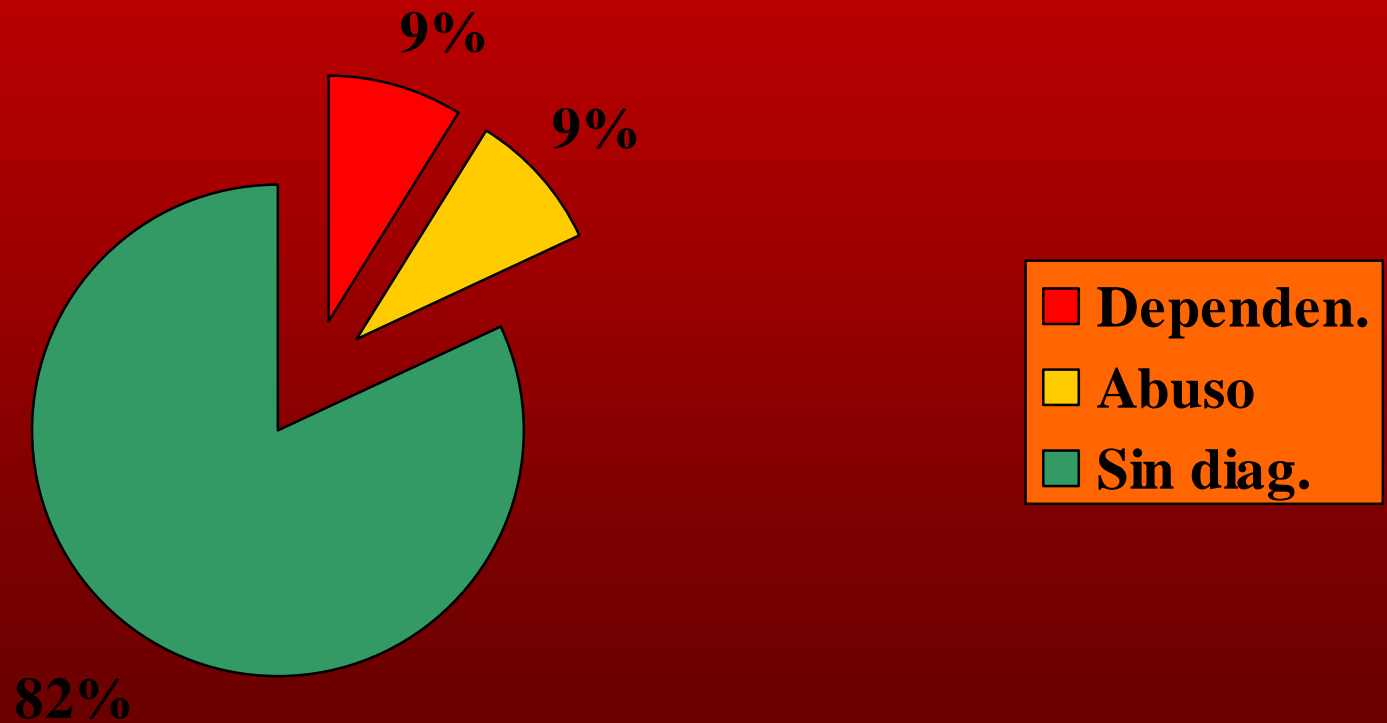


- Drinkers (last year) 73%
- Drinkers (life) 84%
- Abusers (last year) 10% of drinkers
- Dependents 4.5%
- 1/10 starts drinking before age of 13
- Most before 18 years

Alcohol use Disorders

Emergency Service patients

Public Regional Hospital Mar del Plata



Performance of screening instruments

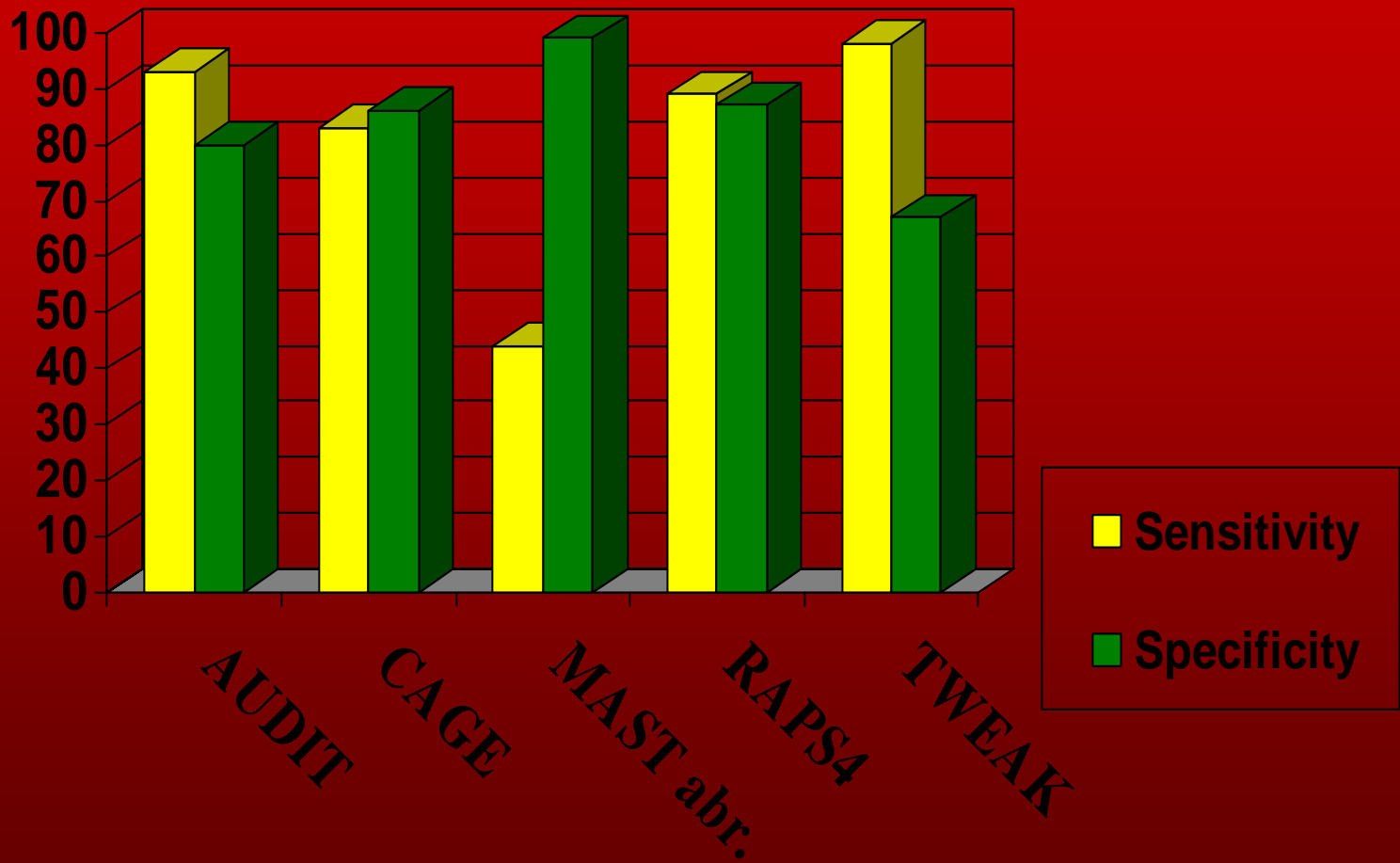
- ❖ **Probabilistic sample**
- ❖ **779 ED patients**
- ❖ **Response rate 92%**
- ❖ **Diagnostic CIDI (WHO, 1994)**
- ❖ **Personal interviews**
- ❖ **AUDIT, CAGE, MAST abr., RAPS4, RAPS4-CF y TWEAK.**

Instrument	N items	Scoring	Advantages
AUDIT	10	Eight items score 0 to 4 two items score 0, 2 or 4.	Validated cross-culturally Measures three factors.
CAGE	4	Each item scores 0 or 1.	Mnemonic. Easy to score and administer.
BRIEF MAST	10	Two items score 0 or 2, other items score 0, 2 or 5.	
RAPS4	4	Each item scores 0 or 1.	Validated cross-culturally. Mnemonic. Easy to score and administer.
RAPS-QF	6	Each RAPS item scores 0 or 1 and both QF questions have to be positive to obtain a positive result.	Validated cross-culturally. Mnemonic. Easy to score and administer. Identifies hazardous use.
TWEAK	5	Tolerance item has a weighted score of 0 to 2, other items score 0 or 1.	Mnemonic.

Scoring

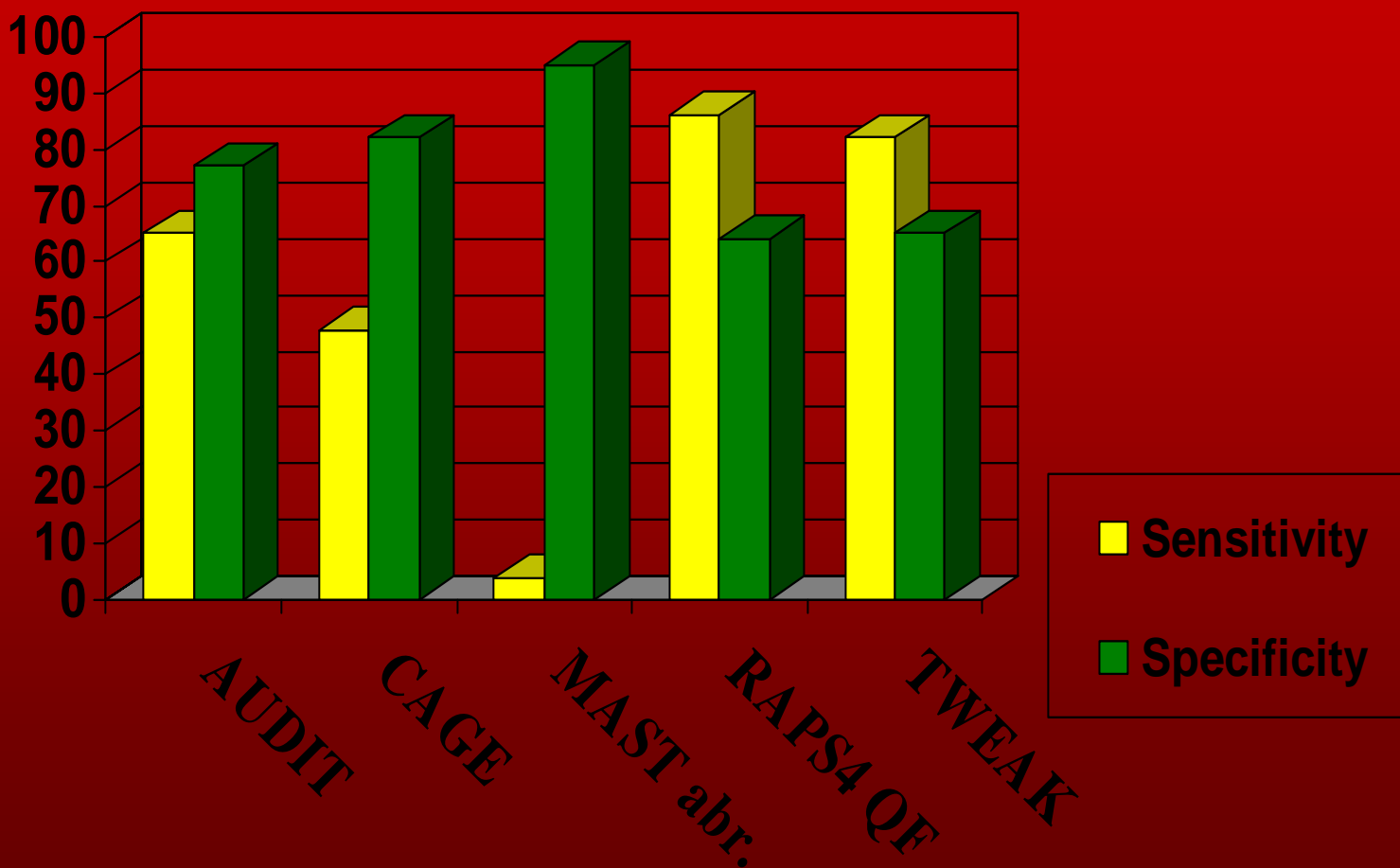
- CAGE (1)
- AUDIT (8)
- TWEAK (2)
- MAST abr. (6)
- RAPS4 (1)

Performance on Dependence (DSM IV)

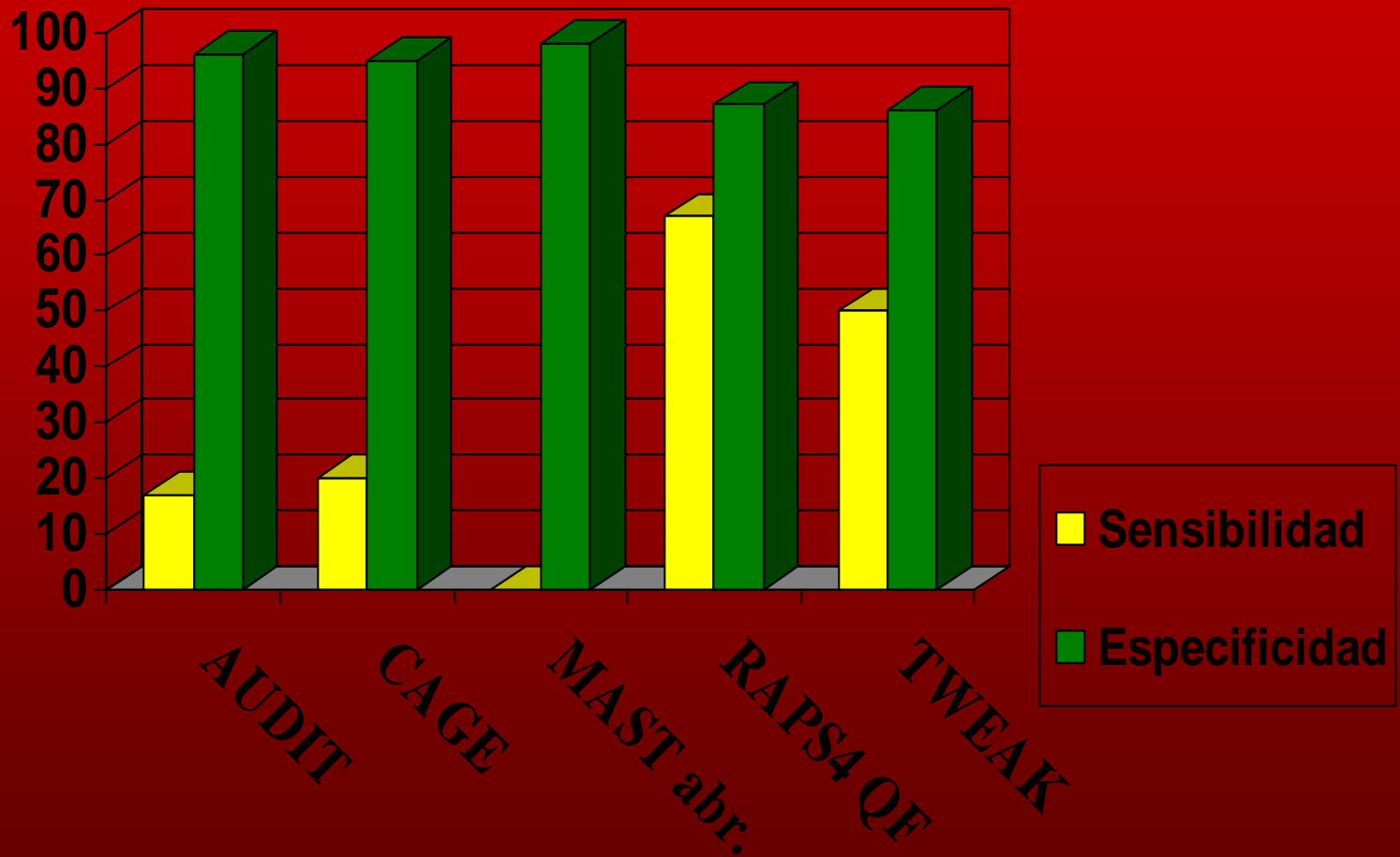


Performance on Abuse (DSM IV)

n=643



Performance on abuse (women) n=239



Rapid Alcohol Problems Screen4

Have you had a feeling of guilt or remorse after drinking?

¿ha tenido sentimientos de culpa o remordimiento después de beber?

Has a friend or a family member ever told you about things you said or did while you were drinking that you could not remember?

¿alguna vez un amigo o familiar le contó sobre cosas que usted dijo o hizo mientras estaba bebiendo y que usted no podía recordar?

Have you failed to do what was normally expected of you because of drinking?

¿ha dejado de hacer lo que normalmente se esperaba de usted, a causa de la bebida?

Do you sometimes take a drink when you first get up in the morning?

¿toma a veces una bebida alcohólica a la mañana cuando se levanta?

Objective

- to assess some psychometric properties of the RAPS4 and compare them across three countries: Argentina, México and the United States.

Methods

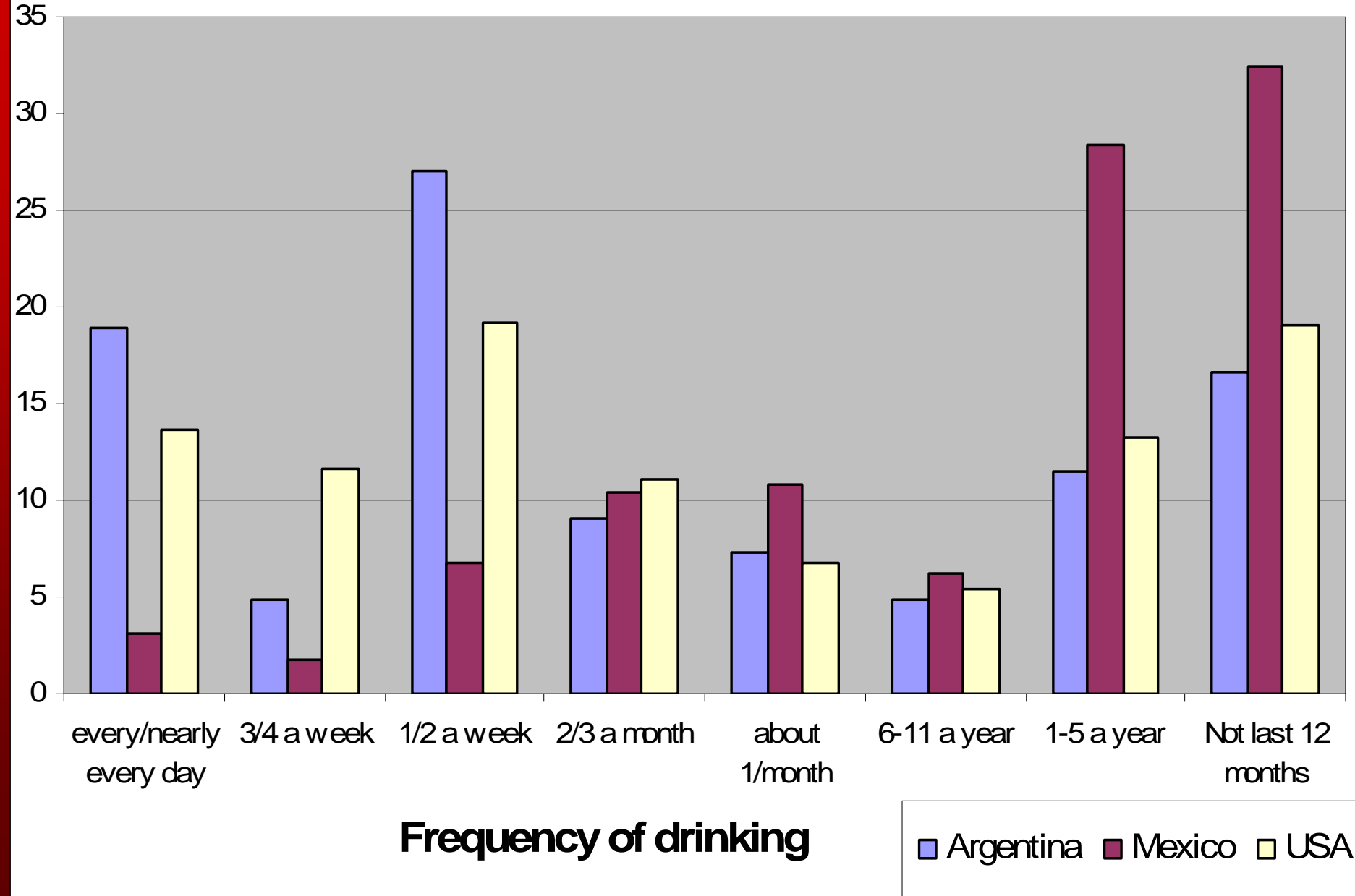
- Samples were probabilistically drawn from emergency room injured patients.
- Eligible participants in each country were interviewed with a similar questionnaire.
- Argentina: ER in a public general hospital in Mar del Plata, Buenos Aires ($n=528$);
- México: three ERs in Pachuca, ($n=546$);
- U.S.A: ER in Santa Clara, CA ($n=210$).

Socio-demographics of samples

		Argentina (<i>n</i> =528)	México (<i>n</i> =546)	EUA (<i>n</i> =210)
Age	Min-max	18-80	18-78	18-70
	Mean (Variance)	33 (15)	32 (12)	31(10)
Gender	Females	29%	23%	35%
	Males	71%	77%	65%
Education	Elementary	50%	45%	5%
	High school- secondary	35%	37%	54%
	College and above	15%	18%	41%
Occupation	Student	6%	10%	4%
	Employed	55%	76%	67%
	Retired/un- employed/other	39%	14%	29%

Drinking habits in each sample

%



RAPS4 responses in each country (framed for the last 12 months).

Country	Argentina n=528		Mexico n=546		EUA n=210	
RAPS item	% negative	% positive	% negative	% positive	% negative	% positive
Remorse	87	13	78	22	77	23
Amnesia	93	7	98	11	88	12
Performan.	94	6	88	12	86	14
Starter	96	4	93	7	92	8

RAPS4 Item analysis

	Item p [Proportion of indicator presence]				Item discrimination index ^a			
Items	1 R	2 A	3 P	4 S	1 R	2 A	3 P	4 S
Country								
ARG	.11	.07	.05	.03	.40	.35	.46	.28
MEX	.22	.11	.12	.07	.37	.43	.46	.40
USA	.23	.12	.14	.09	.51	.47	.54	.48
TOTAL	.18	.10	.09	.06	.41	.42	.49	.40

^aCorrected Item-Test Point-Biserial Correlation.

RAPS4 Reliability

	RAPS Mean and (Variance)	RAPS's V [Variance Coefficient Mean/SD]	RAPS Reliability ^a and (SEM) ^b
Arg (<i>n</i> =528)	.27(.66)	.41	.59(.4)
Mex (<i>n</i> =546)	.52(.90)	.58	.63(.5)
US (<i>n</i> =210)	.57(1.01)	.56	.71(.5)
Total	.42(.85)	.49	.64(.4)

^aTest reliability estimate by Kuder-Richardson-20 index.

^bSEM: Standard error of measurement.

Summary

- All three countries Item STARTER less present and REMORSE most present.
- Best discriminating item is PERFORMANCE.
- STARTER less present probably because indicates more severe cases.
- has a good discrimination index (.40 for the total sample).
- In Argentina by eliminating this item the reliability of the test is not altered.

Conclusions

- ✓ Reliabilities are acceptable
- ✓ higher in USA and MX than ARG.
- ✓ RAPS4 shows good psychometric properties.
- ✓ Further evidence of its appropriateness for screening in ER settings.

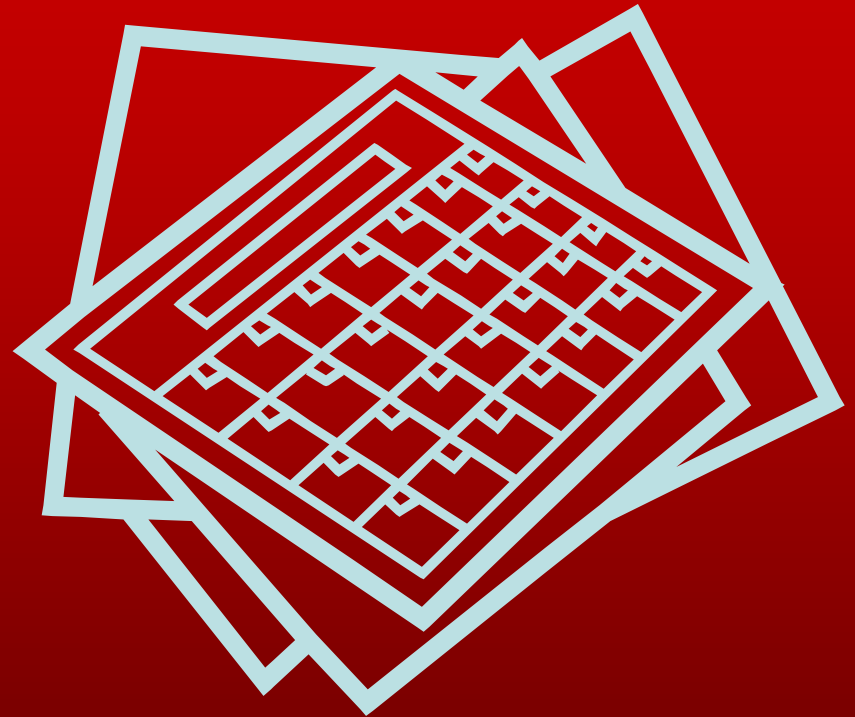
Muito obrigada!!

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RAPS4 Cantidad Frecuencia

**¿Durante el último año ha
tomado bebidas
alcohólicas por lo menos
una vez al mes?**

(Frecuencia)



Y

¿Durante el último año alguna vez ha tomado 5 o más bebidas (ue) en la misma ocasión?



(Cantidad)

POSITIVO cualquier item RAPS4

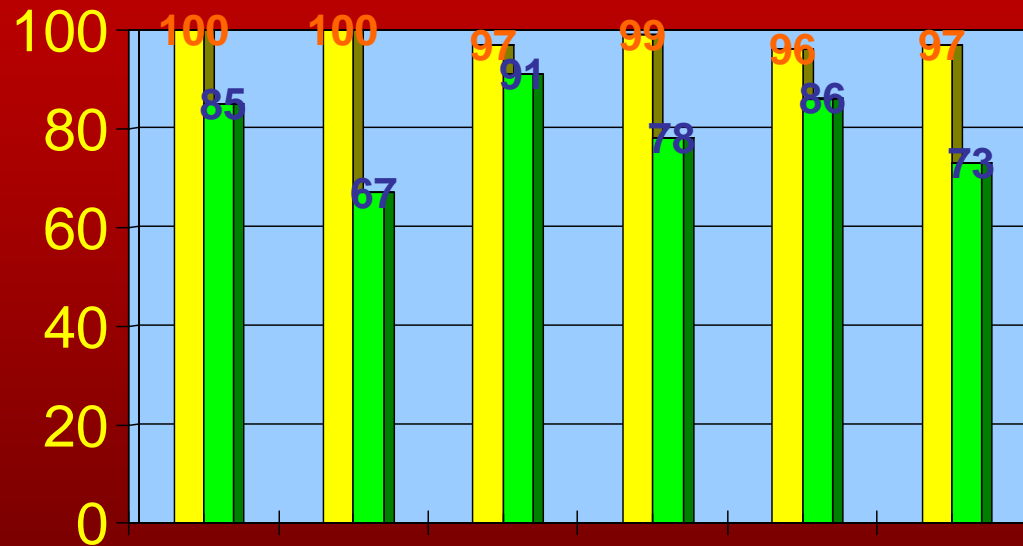
O a las DOS de CF.

Comparison of Sensitivity (S) and Specificity (Sp) of Screening Instruments for Alcohol Dependence Among Current Drinkers

Instrument	Argentina				Mexico				United States			
	Total (643)		<i>F</i> (239)		Total (541)		<i>F</i> (104)		Total (856)		<i>F</i> (379)	
	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp	S	Sp
CAGE	83	86	60	96	76	96	50	97	87	84	76	88
AUDIT	93	80	60	97	92	98	67	98	91	81	76	89
TWEAK	98	67	80	87	90	98	67	98	88	81	80	89
RAPS4	89	87	80	97	92	98	67	96	93	76	91	81

RAPS4-QF performance on risky drinking [ERCAAP]

■ Sensitivity ■ Specificity



Jack
Santa
Pachy
Mar Del Pl
War
Sosnowiec, Poland