Management of diabetes in primary care. Importance of the patient's characteristics for the data comparability.

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Introduction:

There are differences about the extent to which primary care doctors in European countries are involved in managing diabetes mellitus (DM). There are countries where the access to secondary care is controlled by primary care, in others there is direct access to specialists, and in other cases nurse specialists had taken on roles done traditionally by doctors. There could also be differences in the management of diabetes mellitus between regions of the same country. This situation may limit case ascertainment in general practitioners based information systems and its comparability.

Our aim was to study if these differences exits inside the country level and to search its explanations.

Methods:

Data were collected from three Spanish sentinel networks: Castilla y León (**RMCCL**), Basque Country (**RMVPV**) and Comunitat Valenciana (**RCSCV**), in the context of an European study of the validity of the diagnosis of diabetes in primary care.

European networks involved
England, France
Portugal, Slovenia
Belgium, Croatia
Netherlands, Spain

RMVPV

RMCCL   RCSCV

Spain
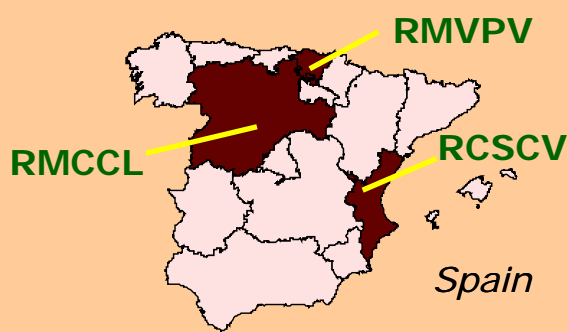
During the year 2000 data about the involvement of primary care doctors with the management of DM covering a 1-year period have been collected.
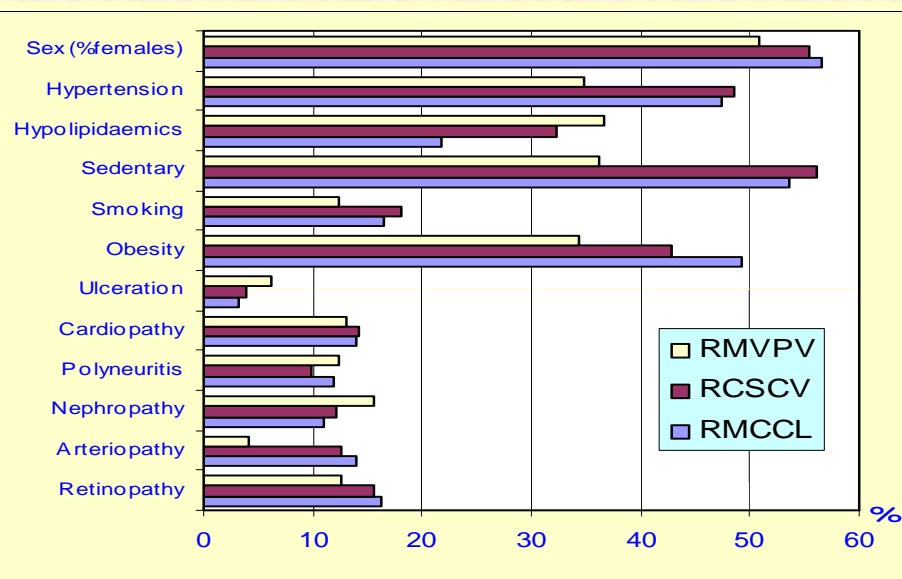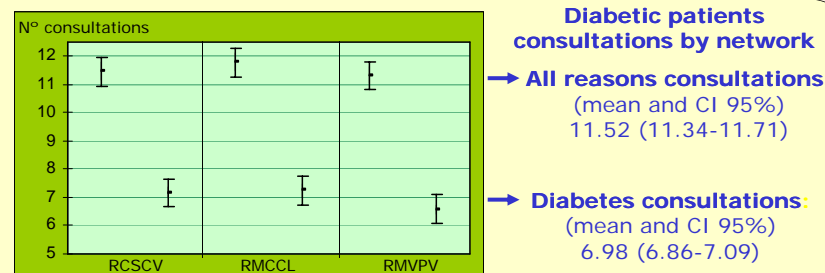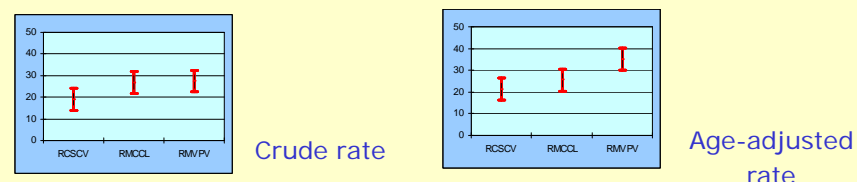
1-year period prevalence.

Frequency distribution of the number of consultations per patient in the previous year.

Binomial negative regression analysis with terms for:
Age, sex, complications, risk factors and residence.

Results:

1 year period prevalence (per 1000 persons, crude rate and age-adjusted rate, C.I. 95%)

Crude rate   Age-adjusted rate

Nº consultations

RCSCV   RMCCL   RMVPV

Diabetic patients consultations by network

→ **All reasons consultations:**
(mean and CI 95%)
11.52 (11.34-11.71)

→ **Diabetes consultations:**
(mean and CI 95%)
6.98 (6.86-7.09)

Sex (%females), Hypertension, Hypolipidaemics, Sedentary, Smoking, Obesity, Ulceration, Cardiopathy, Polyneuritis, Nephropathy, Arteriopathy, Retinopathy

RMVPV / RCSCV / RMCCL

Binomial negative regression analysis

	All reasons consultations: Value	Std. Error	p-value	Diabetes consultations: Value	Std.Error	p-value
	Coefficients:			Coefficients:		
(Intercept)	2.057	0.074	0	1.412	0.081	0
Age	0.003	0.001	2.29e-4	0.005	0.001	3.15e-7
Sex	0.066	0.020	1.49e-3	0.012	0.029	0.689
Retinopathy	0.062	0.025	0.017	0.078	0.027	4.01e-3
Arteriopathy	0.054	0.032	0.092	0.070	0.041	0.091
Nephropathy	0.050	0.028	0.071	0.097	0.029	9.48e-4
Polyneuritis	0.065	0.030	0.032	0.101	0.032	1.60e-3
Cardiopathy	0.102	0.026	1.43e-4	------	------	------
Ulceration	0.236	0.050	3.35e-6	0.206	0.052	7.73e-5
Obesity	0.034	0.019	0.072	------	------	------
Smoking	-0.108	0.028	1.48e-4	-0.090	0.030	3.42e-3
Sedentary	-------	------	------	-0.014	0.020	0.49
Hypolipidaemics	-------	------	------	0.132	0.033	8.06e-5
Hypertension	-------	------	------	0.095	0.029	1.13e-3
Network (RCSCV)	0.284	0.111	0.011	0.034	0.122	5.15e-3
Network (RMVPV)	-0.362	0.147	0.014	0.156	0.157	0.32
Age&Network (RCSCV)	-0.003	0.001	0.032	-0.0004	0.001	0.016
Age&Network (RMVPV)	0.006	0.002	6.00e-3	-0.001	0.002	0.734
HypertensionRCSCV	-0.046	0.044	0.294	-0.021	0.049	0.660
HypertensionRMVPV	-0.204	0.050	6.01e-5	-0.176	0.052	6.86e-4

Conclusions:

The number of consultations (all reasons) was higher for females, patients with high number of complications and lower for smokers. The consultations of patients with hypertension increased for RCSCV and decreased for RMVPV.

The consultations by diabetes were higher also for females, patients with complications, and lower for smokers and sedentary people.

Some differences between Spanish networks for the management of diabetes (number of consultations) could be partially explained by the different characteristics of patients (sex, number/type of complications, risk factors).