



School Nurses The Benefits of a Digital Database

Introduction

The Catholic Nursing Center of the Institute of Health Sciences of the Catholic University of Portugal, develops the Health School Project to achieve gains in health in basic and elementary school communities. This project includes teaching aims, research and community services.

In academic year of 2008/2009, nursing activities were handmade registered. To improve the quality of this process it was necessary to evolve into a digital format.

Aim/Objectives

- Build a digital database for nursing appointments
- Generate automatic real time reports for significant outcomes

Methods

We used Microsoft Access® for its accessibility, ease of creating complex databases and data export. The minimum data set on the parameterized system arose from a systematic analysis of the most frequently nursing diagnoses and interventions (30 focus and 25 interventions) during the previous school year, where the project took place.

Results

The database was built to use International Classification for Nursing Practice (ICNP ®). The data entry interface is divided in: Academic, Health, Therapy, Nursing Diagnoses, Nursing Interventions, Nursing records (fig. 1, 2, 3). Automatic real time reports can now be generated from each database (fig. 4) and at the end of the academic year of 2009/2010, we obtained the following outcomes: 1832 clients from six different intervention places with 3778 nursing appointments, 4456 nursing diagnosis and 8227 nursing interventions.

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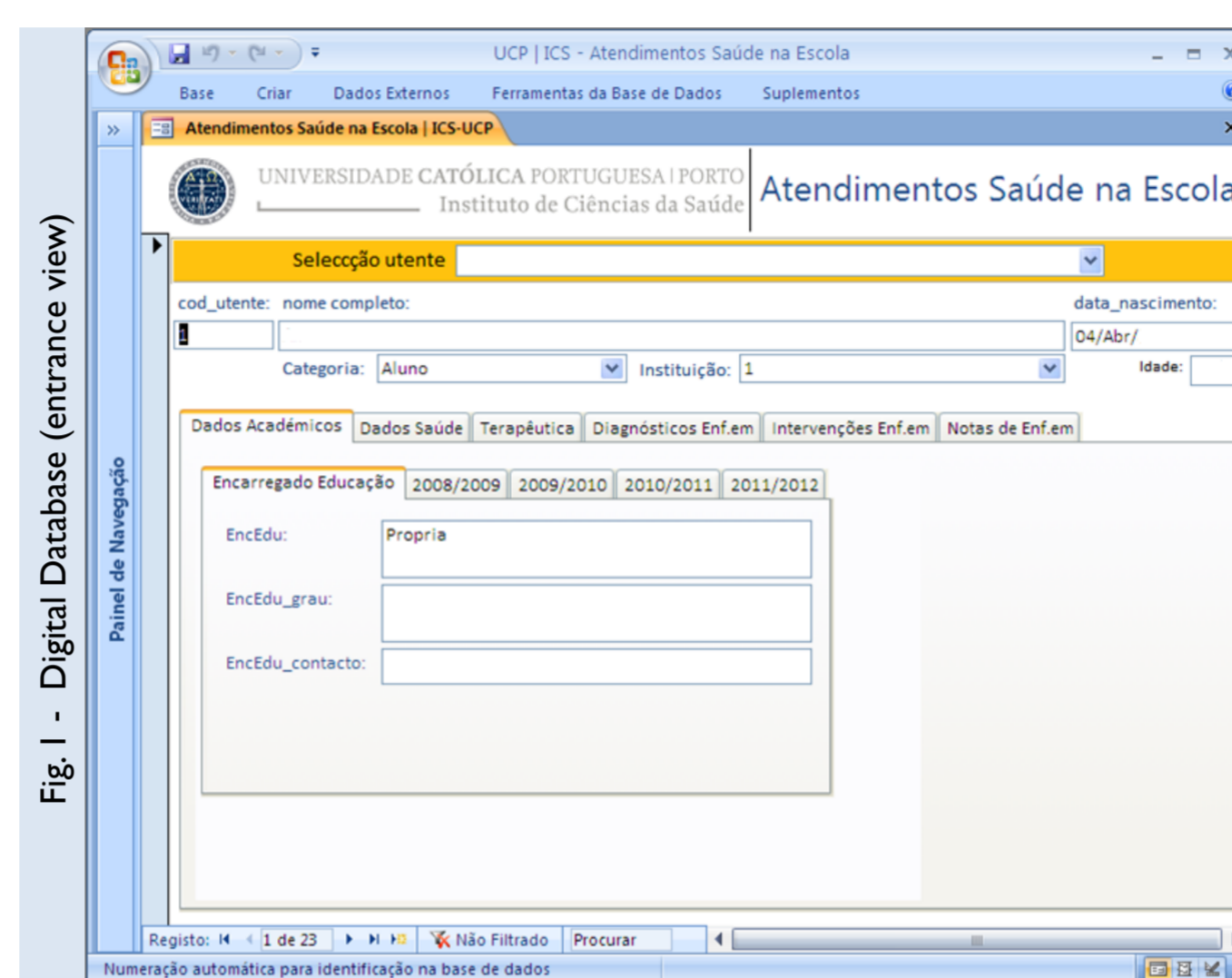


Fig. 1 - Digital Database (entrance view)

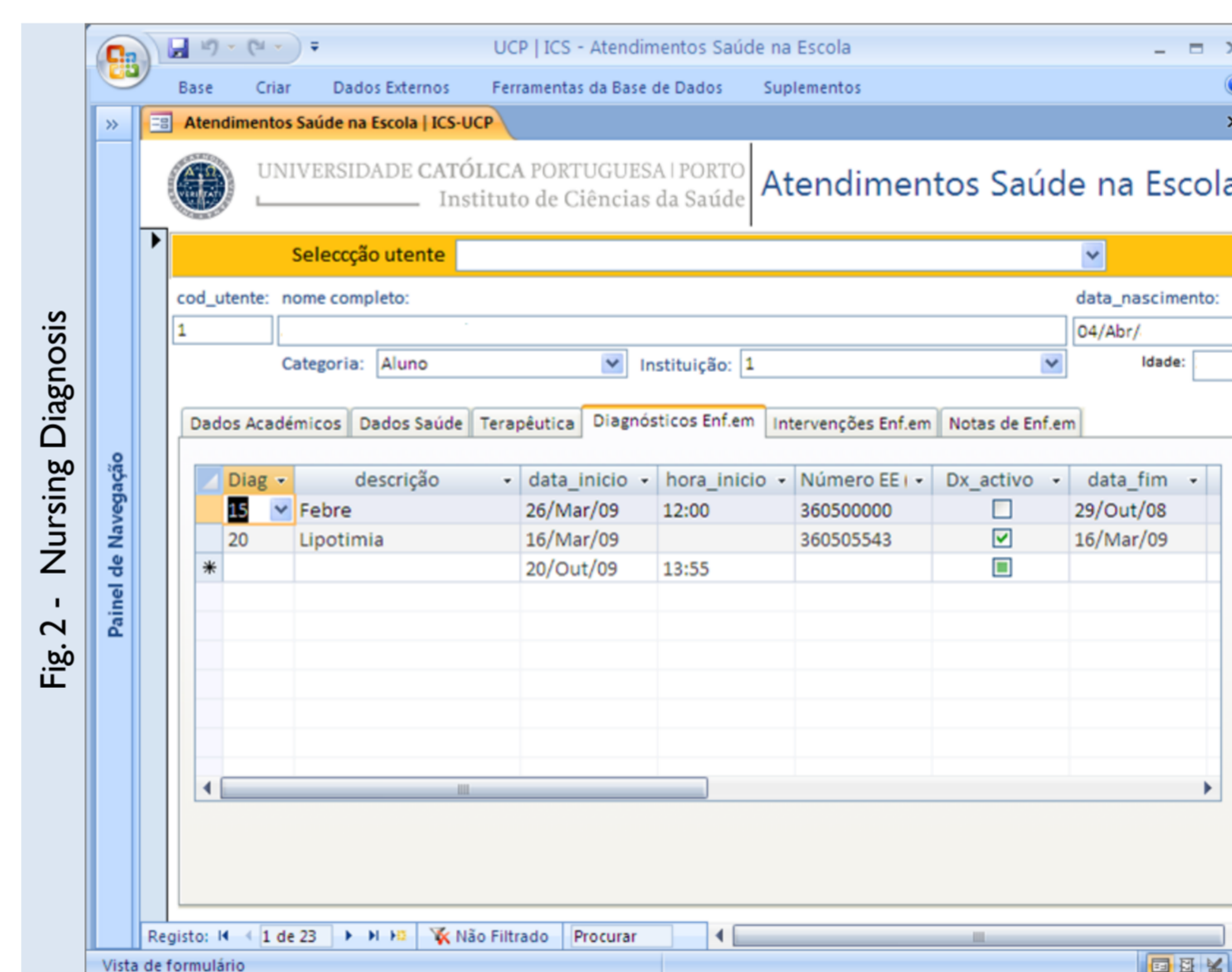


Fig. 2 - Nursing Diagnosis

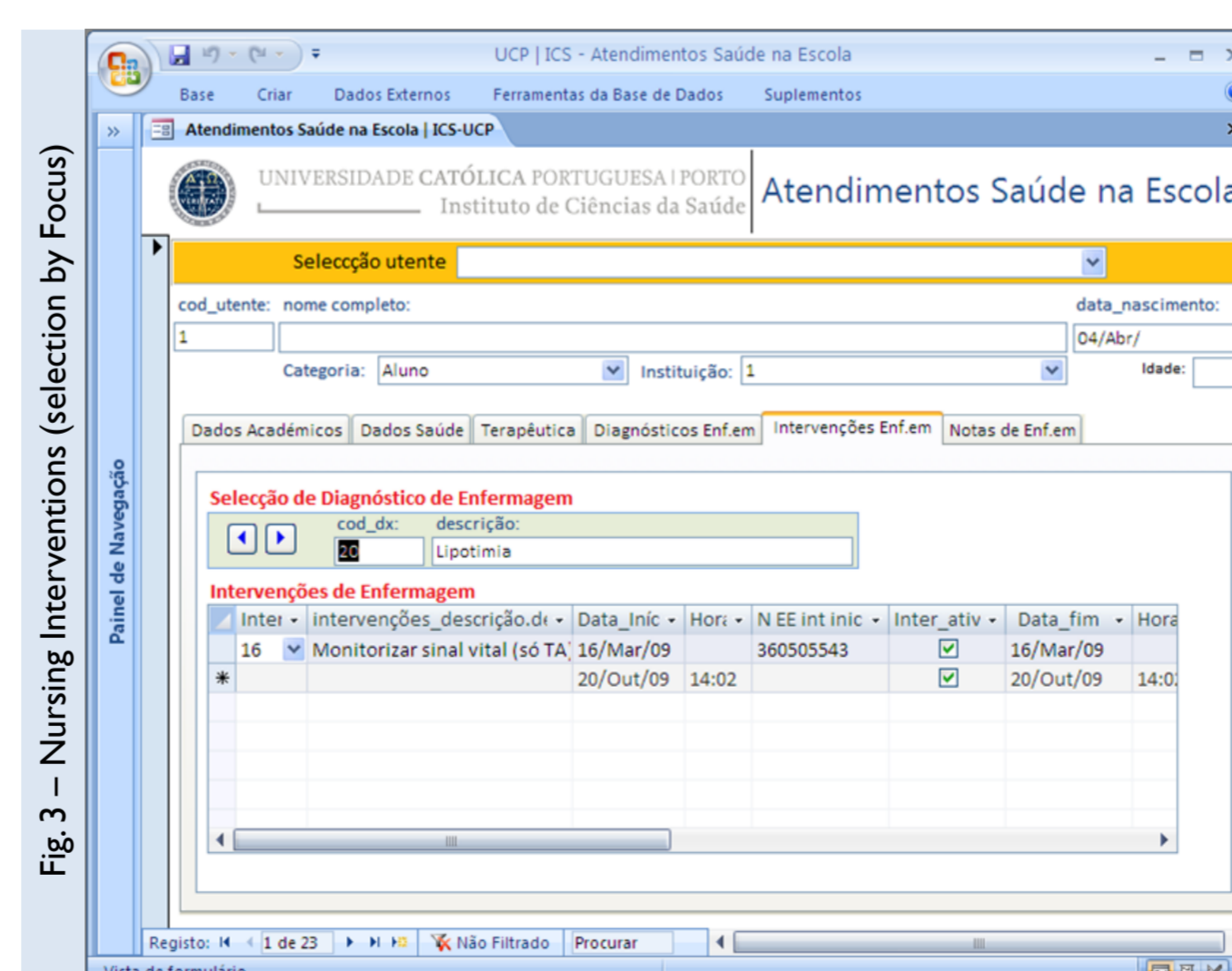


Fig. 3 - Nursing Interventions (selection by Focus)

Atendimentos de Enfermagem (Nursing Appointments)				199	
Focos de Enfermagem (Nursing Focus)					
cod_dx	descrição	contagem	cod_dx	descrição	contagem
1	Dor (Pain)	296	15	Febre (Fever)	3
2	Edema (Oedema)	38	16	Ferida (Wound)	5
11	Entorse (Sprain)	14	17	Prurido (Itching Process)	10
12	Perda sanguínea (Bleeding Process)	9	18	Tonturas (Dizziness)	2
13	Hematoma	15	19	Outro (Other)	29
14	Escoriação (Excoriation)	89	20	Lipotimia (Faint)	2
...					
Intervenções de Enf.em (Nursing Interventions)					
intervenção	descrição	contagem			
1	Lavar com água (Washing with water)	37			
2	Tapar com penso de ferida (Draping with Wound Dressing)	58			
3	Massajar com analgésico (Massaging with Analgesic)	28			
4	Administrar analgésico (Administering Analgesic)	6			
6	Aplicar embalagem fria (Applying Cold Pack)	174			
7	Promover repouso (Promoting Rest)	7			
12	Lavar com soro fisiológico (Washing with NaCl)	95			
13	Monitorizar glicemia capilar (Monitoring Blood Glucose Level)	1			
19	Monitorizar a Temperatura Corporal (Monitoring Body Temper	80			
...					

Fig. 4 - Automatic Reports (Appointments, Focus and Intervention)

Discussion/Conclusion

The development of digital database allows the data entry to become more systematic, safe and accessible via an intuitive interface.

Counts of attendances outbreaks and nursing interventions are now possible by using queries and reports. These queries and reports make possible, at any time, counts of nursing appointments, focus and nursing interventions.

For health project coordinators, educational institutions and nursing staff, the outcomes have proved to be essential for planning and justification of implemented actions. Also, for students and nursing teachers, the outcomes enhanced the monitoring of higher complexity cases, continuity of care and research throughout time.

By systematic use of digital data entry form, other needs had been identified. We are already developing a family assessment module, a resource management of the "nursing offices" and an improvement of the automatic reports.