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Introduction

I will present in this document ten scenarios that I judged the main ones for the stakeholders. Through the provided data, Medicare and Australian Government can now have the results about the implemented plans between 2006 and 2011. Also, they are able to design new strategies for the next years. Regarding the scenarios showed in this document, these new strategies can be made easier.

The data warehouse schema suggested for this project is present in the final of the document as well as final comments.

CASE #1

	A	B	C	D	E	F	G	H	I
1	localhost/lab1Test								
2	FinalCube								
3	Year								
4	Australia								
5	All Specialties								
6	Units								
7	All Patients								
8	All GP								
9	All Specialists								
10	All Days								
11	Time								
12									
13		All Years	2006	2007	2008	2009	2010	2011	
14	TypeInsurance	5,000.00	801.00	871.00	844.00	792.00	895.00	797.00	
15	1	826.00	131.00	149.00	129.00	134.00	141.00	142.00	
16	0	4,174.00	670.00	722.00	715.00	658.00	754.00	655.00	
17									

I treated the value 1 as a ‘Yes’ when the health system user has a private insurance (16.52%). Otherwise, the value 0 means the user is fully dependent on the public health system (83.48%). Therefore, this result means that the government should be aware about the health system, mainly regarding treatments for fully dependents. They represent over 3 quarters of the whole health system.

CASE #2

	A	B	C	D	E	F	G	H	I	J
1	localhost/lab1Test									
2	FinalCube									
3	Western Australia									
4	Year									
5	Units									
6	All Patients									
7	All GP									
8	All Specialists									
9	All Days									
10	TypeInsurance									
11	Time									
12										
13		All Specialties	Cardiology	Oncology	Dermatology	Neurology	Radiology	Endocrinology	Hematology	Gynecology
14	All Years	704.00	91.00	102.00	78.00	85.00	93.00	81.00	92.00	82.00
15	2006	112.00	9.00	23.00	16.00	10.00	17.00	13.00	17.00	7.00
16	2007	132.00	15.00	23.00	14.00	17.00	17.00	20.00	11.00	15.00
17	2008	115.00	15.00	14.00	13.00	17.00	17.00	11.00	15.00	13.00
18	2009	106.00	15.00	13.00	10.00	13.00	10.00	13.00	20.00	12.00
19	2010	124.00	18.00	19.00	12.00	14.00	13.00	13.00	18.00	17.00
20	2011	115.00	19.00	10.00	13.00	14.00	19.00	11.00	11.00	18.00
21										

This case shows that in Western Australia, the numbers of cardiology problems had risen gradually along the years. It indicates that the government should change its campaign to prevent cardiology problems from now on, mainly those related with Pediatric Tachycardia that suffered a little outbreak in 2011(see detailed table below).

s	Cardiology	Cardiac Sarcoma	Hypertension	Pediatric Tachycardia	On
00	91.00	27.00	28.00	36.00	
00	9.00	3.00	2.00	4.00	
00	15.00	4.00	5.00	6.00	
00	15.00	3.00	4.00	8.00	
00	15.00	6.00	7.00	2.00	
00	18.00	3.00	9.00	6.00	
00	19.00	8.00	1.00	10.00	

CASE #3

	A	B
1	localhost/lab1Test	
2	FinalCube	
3	All Years	
4	All Specialties	
5	Units	
6	All Patients	
7	All GP	
8	All Specialists	
9	All Days	
10	TypeInsurance	
11	Time	
12		
13		Australia
14	Jan	429.00
15	Feb	425.00
16	Mar	412.00
17	Apr	397.00
18	May	457.00
19	Jun	416.00
20	Jul	411.00
21	Aug	416.00
22	Sep	409.00
23	Oct	419.00
24	Nov	408.00
25	Dec	401.00

The case #3 shows that the number of appointments remains steady. In addition, the table illustrates that between April and May exist a big gap that it is meaningful.

Assuming that the ticket prices to travel overseas are cheap due to low season (mainly in April and May), people are likely to suffer diseases from their destinations. So, the government could improve its strategies to handle with people that transited in these countries.

CASE #4

	Australia		
Time	5,000.00		Average
20	151.00		35.0266
21	152.00		
22	152.00		
23	163.00		
24	143.00		
25	167.00		
26	186.00		
27	180.00		
28	166.00		
29	165.00		
30	176.00		
31	158.00		
32	153.00		
33	145.00		
34	179.00		
35	138.00		
36	146.00		
37	144.00		
38	179.00		
39	172.00		
40	165.00		
41	154.00		
42	160.00		
43	168.00		
44	172.00		
45	168.00		
46	181.00		
47	156.00		
48	171.00		
49	129.00		
50	161.00		

The appointment time assumed here is between 10 and 50 minutes. The average of the duration of this is 35 minutes. Assuming that 30 minutes is the minimum for each appointment, the results are quite accurate to the goal proposed by the government.

CASE #5

These values are related with the total cost of the treatments of each appointment. As it is showed, the state that the government had spent much money is Queensland.

	A	B	C	D	E	F	G	H	I
1	localhost/lab1Test								
2	FinalCube								
3	All Specialties								
4	Cost of Treatment								
5	Year								
6	All Patients								
7	Time								
8	All GP								
9	All Specialists								
10	All Days								
11	TypeInsurance								
12									
13		Australia	New South Wales	Northern Territory	South Australia	Western Australia	Victoria	Tasmania	Queensland
14	All Years	124,895,500.00	16,638,000.00	18,062,000.00	18,583,000.00	17,414,000.00	17,379,000.00	17,699,500.00	19,120,000.00
15	2006	20,126,000.00	3,025,500.00	2,899,000.00	3,219,500.00	2,706,000.00	2,519,000.00	2,677,500.00	3,079,500.00
16	2007	21,532,500.00	2,642,500.00	3,241,500.00	3,483,000.00	3,173,500.00	2,701,500.00	3,297,000.00	2,993,500.00
17	2008	21,122,500.00	2,849,500.00	3,196,500.00	2,768,000.00	2,734,500.00	2,944,000.00	2,843,500.00	3,786,500.00
18	2009	20,239,000.00	2,451,000.00	2,680,500.00	3,263,000.00	2,801,500.00	3,395,500.00	2,930,000.00	2,717,500.00
19	2010	22,047,500.00	2,624,500.00	3,395,000.00	3,315,500.00	3,277,500.00	3,076,000.00	3,147,000.00	3,212,000.00
20	2011	19,828,000.00	3,045,000.00	2,649,500.00	2,534,000.00	2,721,000.00	2,743,000.00	2,804,500.00	3,331,000.00
21									

The picture below shows the costs related with all specialties and the states. It can guide the government to search new changes and reduce costs of treatments, mainly about Hematology(most expensive).

	A	B	C	D	E	F	G	H	I
1	localhost/lab1Test								
2	FinalCube								
3	Cost of Treatment								
4	Year								
5	All Patients								
6	All Years								
7	Time								
8	All GP								
9	All Specialists								
10	All Days								
11	TypeInsurance								
12									
13		Australia	New South Wales	Northern Territory	South Australia	Western Australia	Victoria	Tasmania	Queensland
14	All Specialties	124,895,500.00	16,638,000.00	18,062,000.00	18,583,000.00	17,414,000.00	17,379,000.00	17,699,500.00	19,120,000.00
15	Cardiology	15,593,500.00	1,945,000.00	1,972,500.00	2,195,000.00	2,424,500.00	2,406,000.00	1,944,500.00	2,706,000.00
16	Oncology	15,786,500.00	1,943,500.00	2,728,000.00	2,412,000.00	2,497,500.00	1,899,500.00	2,227,000.00	2,079,000.00
17	Dermatology	15,599,000.00	2,313,000.00	2,241,500.00	2,244,500.00	1,842,500.00	1,831,000.00	2,718,000.00	2,408,500.00
18	Neurology	15,039,000.00	1,983,000.00	2,027,500.00	2,182,500.00	2,117,000.00	2,046,500.00	2,060,000.00	2,622,500.00
19	Radiology	15,444,500.00	2,179,000.00	2,447,500.00	2,236,500.00	2,310,000.00	2,186,500.00	2,088,500.00	1,996,500.00
20	Endocrinology	16,012,500.00	2,199,000.00	2,064,500.00	1,908,500.00	2,208,000.00	2,614,500.00	2,150,500.00	2,867,500.00
21	Hematology	16,142,500.00	2,126,000.00	2,444,500.00	3,026,000.00	2,077,000.00	1,754,000.00	2,683,000.00	2,032,000.00
22	Gynecology	15,278,000.00	1,949,500.00	2,136,000.00	2,378,000.00	1,937,500.00	2,641,000.00	1,828,000.00	2,408,000.00
23									

CASE #6

This case shows the pharmaceutical benefit provided by the government and how it impacts in each state. Again, Queensland holds the highest amount of pharmaceutical benefit in all years. The limit of the pharmaceutical benefit for each patient is up to $500, the amount of money over the limit is paid by the patient. If the budget available for the pharmaceutical benefit is too high to the government afford, then the government should review its pharmaceutical benefits policies.

	A	B	C	D	E	F	G	H	I
1	localhost/lab1Test								
2	FinalCube								
3	Pharmaceutical Benefit								
4	Year								
5	All Patients								
6	Time								
7	All GP								
8	All Specialties								
9	All Specialists								
10	All Days								
11	TypeInsurance								
12									
13		Australia	New South Wales	Northern Territory	South Australia	Western Australia	Victoria	Tasmania	Queensland
14	All Years	1,251,798.00	178,048.00	179,858.00	179,273.00	176,950.00	173,505.00	176,395.00	187,769.00
15	2006	202,128.00	33,817.00	28,257.00	31,772.00	28,329.00	24,783.00	25,700.00	29,470.00
16	2007	219,728.00	26,825.00	31,792.00	31,331.00	33,001.00	31,084.00	34,045.00	31,650.00
17	2008	208,700.00	33,159.00	29,439.00	25,336.00	29,300.00	28,550.00	27,281.00	35,635.00
18	2009	197,261.00	21,264.00	28,963.00	29,139.00	28,058.00	30,254.00	27,740.00	31,843.00
19	2010	225,798.00	29,845.00	34,911.00	35,460.00	31,644.00	33,288.00	32,825.00	27,825.00
20	2011	198,183.00	33,138.00	26,496.00	26,235.00	26,618.00	25,546.00	28,804.00	31,346.00

CASE #7

This case shows the quantity of days that the user should wait for the specialist. Therefore, considering the data showed below, it is a severe situation to the government deal with. It should take decisions as soon as possible to solve the problem of the queue's length.

	A	B	C	D	E	F	G	H	I
1	localhost/lab1Test								
2	FinalCube								
3	Days of delay								
4	Year								
5	All Patients								
6	Time								
7	All GP								
8	All Specialties								
9	All Specialists								
10	All Days								
11	TypeInsurance								
12									
13		Australia	New South Wales	Northern Territory	South Australia	Western Australia	Victoria	Tasmania	Queensland
14	All Years	901,923	121,010	127,574	134,586	121,809	129,903	131,103	135,938
15	2006	141,432	22,915	19,432	22,035	18,264	18,696	18,641	21,449
16	2007	155,595	17,894	20,867	26,142	22,548	22,212	23,120	22,812
17	2008	154,592	21,085	24,518	19,575	21,881	21,750	20,349	25,434
18	2009	140,169	17,785	18,636	21,205	16,595	21,446	22,417	22,085
19	2010	161,728	18,245	24,363	24,215	21,431	24,867	25,964	22,643
20	2011	148,407	23,086	19,758	21,414	21,090	20,932	20,612	21,515
21									

CASE #8

This table below shows the costs of the treatment according to the quarters of the year. The trend here is that the government spends more money in the first half of the year than the second half. So, it should be prepared to create new plans to optimize its costs.

	A	B	C	D	E	F
1	localhost/lab1Test					
2	FinalCube					
3	All Specialties					
4	Cost of Treatment					
5	All Patients					
6	All Specialists					
7	Australia					
8	All GP					
9	All Days					
10	TypeInsurance					
11	Time					
12						
13		Year	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
14	All Years	124,895,500.00	32,003,500.00	31,788,500.00	30,699,000.00	30,404,500.00
15	2006	20,126,000.00	4,978,000.00	5,046,500.00	5,145,500.00	4,956,000.00
16	2007	21,532,500.00	5,495,500.00	5,002,000.00	5,859,500.00	5,175,500.00
17	2008	21,122,500.00	5,713,500.00	5,140,000.00	5,493,500.00	4,775,500.00
18	2009	20,239,000.00	4,960,500.00	5,358,500.00	4,843,500.00	5,076,500.00
19	2010	22,047,500.00	6,042,000.00	5,605,500.00	5,258,500.00	5,141,500.00
20	2011	19,828,000.00	4,814,000.00	5,636,000.00	4,098,500.00	5,279,500.00
21						

CASE #9

This table below shows that along the years, the 4th and 2th quarters have been increased by the number of the days of delay. Therefore, the medicare should be prepared to take decisions to prevent possible issues in these periods of the years from now on.

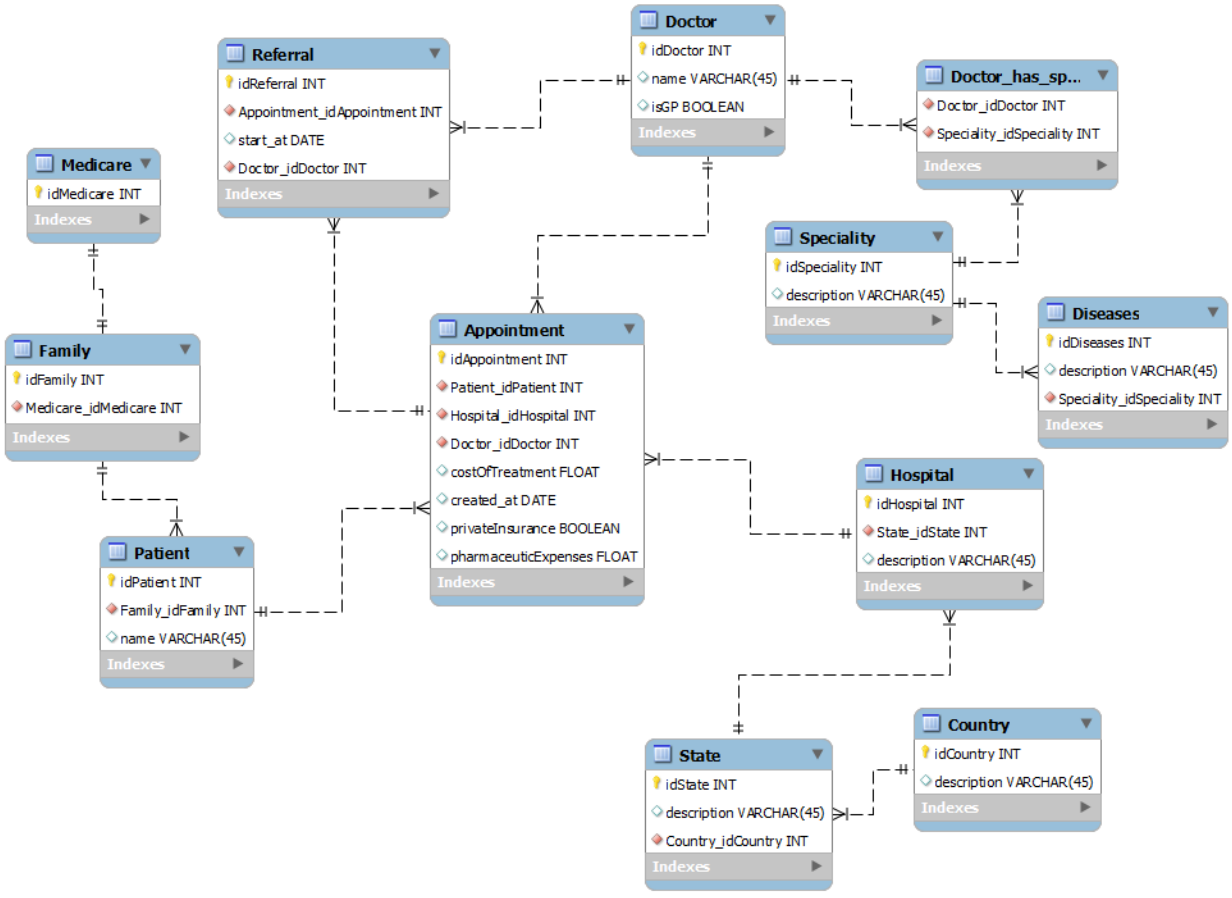
	A	B	C	D	E
1	localhost/lab1Test				
2	FinalCube				
3	All Specialties				
4	All Specialists				
5	Australia				
6	Days of delay				
7	All Patients				
8	All GP				
9	All Days				
10	TypeInsurance				
11	Time				
12					
13		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
14	All Years	231,868	225,166	220,124	224,269
15	2006	33,148	35,026	37,469	35,591
16	2007	40,307	37,442	41,964	35,882
17	2008	41,989	34,926	38,411	38,968
18	2009	37,776	36,338	34,942	31,113
19	2010	42,338	41,982	36,086	41,322
20	2011	36,310	39,452	31,252	41,393
21					

CASE #10

Analyzing the table below, it shows that Neurology and Hematology had a little outbreak in the last year (2011). The others specialties kept approximately the same value during the years. It shows that the demand for these two areas is increasing and they will represent a big cost to the government for the future.

localhost/lab1Test									
FinalCube									
Year									
All Specialists									
Australia									
Days of delay									
All Patients									
All GP									
All Days									
TypeInsurance									
Time									
	All Specialties	Cardiology	Oncology	Dermatology	Neurology	Radiology	Endocrinology	Hematology	Gynecology
All Years	901,427	115,118	110,136	110,258	108,780	113,832	112,155	118,587	112,561
2006	141,234	16,976	21,667	16,656	13,125	18,604	16,507	20,199	17,500
2007	155,595	18,774	23,256	19,691	19,159	19,232	18,022	18,506	18,955
2008	154,294	22,801	14,079	18,855	17,792	22,274	20,327	18,394	19,772
2009	140,169	18,304	17,937	19,089	15,912	18,563	15,573	19,441	15,350
2010	161,728	19,100	19,664	18,152	21,161	19,723	22,166	18,970	22,792
2011	148,407	19,163	13,533	17,815	21,631	15,436	19,560	23,077	18,192

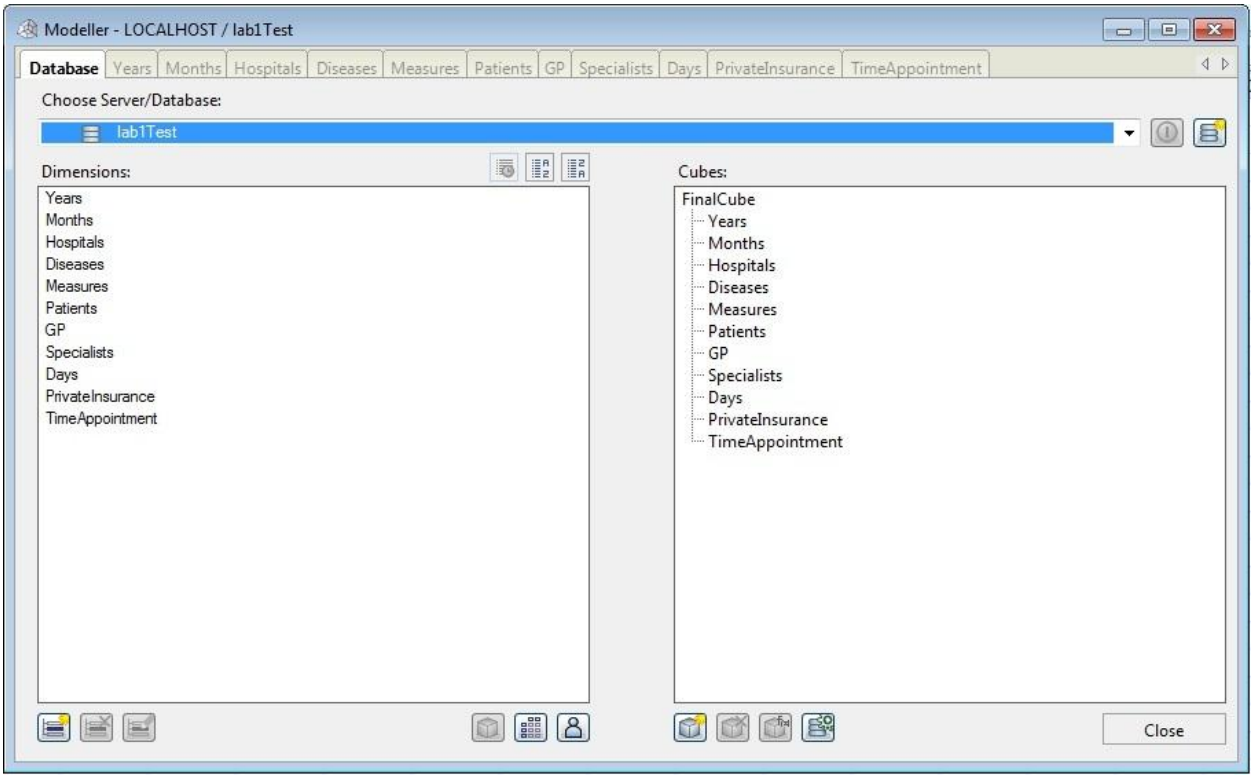
DATA WAREHOUSE SCHEMA



This schema shows nearly the data warehouse that best represents this project.

FINAL COMMENTS

Although the data presented in this project are totally random, the showed results trends and behaviors that are easily observed by using the Palo. The cube has been posted below and it shows the dimensions that I have created.



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