MANAGERIAL STRATEGIES CONCERNING THE WAGE POLITICS IN THE MEDICAL-SANITARY INSTITUTIONS

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Abstract

It is well known that nowadays the evolution of the payroll in the sanitary organisms is in opposition with the insufficiency of the resources of these institutions. As a result, the prevision of the payroll due to a year in report with another one, must be made depending on a complex analysis, based both on the situation of the environment and on the objectives established in dependence with the existent constraints and on the anticipated results which, measuring the degree of realization of the different decisions, will allow the alternative comparisons and the selection of the most satisfying. The paper analyzes the evolution of this payroll taking into account the increase of the general wages which apply to all employees; the increases of the individual wages (merits or promotions) and the stuff movement materialized in stuff inputs (employments) and stuff outputs (departures, resignations, etc.)

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JEL classification: M12, M41, I19

1. Wage table as a strategic element of salary policy the general calculation principle

The calculation basis of a wage table is founded on an exhaustive survey of the salary elements established from the month of December of the year prior to the projection. Therefore, we shall bear in mind the ensemble of inflexible elements of the remuneration – the base pay, the length of service bonuses, etc.

This wage table called "basic" evolves depending on more parameters, related to social politics (general or individual wage increases) or to the evolution of the workforce (the fluctuation of personnel).

Generally, the personnel fluctuations can be illustrated according to the following scheme:

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			(area 3)
Personnel departed during the year			
	(area 2)		
	Stable personnel		
	(area 1)		
			Recruited personnel
			(area 4)

Time (months of the year)

According to the diagram above, there are two possible calculation methods of the wage table:

$$\begin{array}{l}\text{wage table} \\ \text{year N}\end{array} = \begin{array}{l}\text{wage table of the} \\ \text{stable personnel (area 1)}\end{array} + \begin{array}{l}\text{wage table of the} \\ \text{departed personnel (area 2)}\end{array} + \begin{array}{l}\text{wage table of the} \\ \text{recruited personnel (area 4)}\end{array}$$

or:

$$\begin{array}{l}\text{wage table} \\ \text{year N}\end{array} = \begin{array}{l}\text{wage table of the staff} \\ \text{present at 1 of January} \\ \text{(area 1, 2 and 3)}\end{array} - \begin{array}{l}\text{unpaid salaries of the} \\ \text{departed personnel} \\ \text{(area 3)}\end{array} + \begin{array}{l}\text{wage table of the} \\ \text{recruited personnel} \\ \text{(area 4)}\end{array}$$

2. Practical application regarding the wage table in medical institutions

Example. The workforce in an ALFA hospital for the year N is rendered in the chart below:

Specifications	Personnel	Annual gross salaries	Gross salaries for December
Management	*4*	*1.500.000*	*30.000*
Nurses	*300*	*50.000.000*	*15.000*
Medical assistants	*60*	*8.000.000*	*12.000*
Doctors	*40*	*7.500.000*	*13.000*

The wage agreement for the following year N+1 comprises:

(1) Uniform increase of salaries, without any socio-professional differentiations:1.5 % on April 1st and 2% on October 1st.

(2) Individual salary raises: represent 0.80 % of the wage table of December, year N, being given on 1st of July of the year N+1. These increases shall not be

granted to the personnel before permanently leaving the institution, neither to the staff recruited during the year.

(3) Two medical assistants (gross wage in December = 12.500) will be promoted to resident doctors on April 1st (predicted salaries – 14.500); these two staff members will not be granted the general salary increase programmed for April.

Personnel outflow and inflow table, predicted for the year N+1 is present as it follows:

Categories	Month of departure from the hospital (end of the month)	Gross salary for December, N	Recruitment month (beginning of the month)	Predicted gross salary
Medical assistant	August	14,000	May	9,500

Categories	Month of departure from the hospital (end of the month)	Gross salary for December, N	Recruitment month (beginning of the month)	Predicted gross salary
Medical assistant	December	15,000	-	
Doctor	August	15,900	-	
Doctor	December	15,000	-	
Nurse	September	19,.000	August	12,500
Nurse			December	13,000

In order to obtain the wage table for the year N+1, we shall calculate successively:

(1) The wage table of the permanent personnel, which implies establishing the staff expected for the year N+1, taking into consideration personnel fluctuations, highlighting the stable workforce. This predicament of the wage table take into account the all the increases considered for the following year.

At the end of the year N+1, the personnel, grouped in categories, will be:

Categories	Staff year N	Departures year N+1	Permanent staff N+1	Inflows N+1	Staff year N+1
Management	4		4		4
Nurses	300	1 (September)	299	4 (August, December and 2 promotions)	303
Medical assistants	60	4 (August, December and 2 promotions)	56	1 (May)	57
Categories	Staff year N	Departures year N+1	Permanent staff N+1	Inflows N+1	Staff year N+1
Doctors	40	2 (August, December)	38		38
Total	404	7	397	5	402

For the calculation of the index we consider that for the year of December, N, the basis is 100.

Since the increases are successive, it is necessary to study the influence in time, taking into consideration the fact that they can be of different natures, respectively:

(1) general increases have a multiplicative nature, meaning that they are applied cumulatively for either of the categories.

(2) individual pay raises are characterized as being additive, which means that they are globally added to the wage table.

The calculation of the multiplicative index for the permanent staff is as it follows:

Period	No. of month	Way of calculation	index	Total
Jan, Feb, March	3		100	300 = 3 × 100
April, May, June, July	4	100 ×1,015 = 101,5	101,5	406 = 101,5 × 4
August and September	2	101,5 + 0,8 = 102,3	102,3	204,6 = 102,3 × 2
Oct, Nov, Dec.	3	102,3 × 1,02 = 104,35	104,35	313,05 = 104,35 × 3
The value of the multiplicative index				1.223,65
Multiplication coefficient				12,2365

The calculation of the wage table for the permanent staff:

Categories	Permanent staff	Salaries for December, N	Multiplicative coefficient	Wage table
0	1	2	3	4 = 1 ×2 × 3
Management	4	30.000	12,2365	1.468.380
Nurses	299	15.000	12,2365	54.880.703
Medical assistant	56	12.000	12,2365	8.222.928
Doctor	38	13.000	12,2365	6.044.831
Total	397			70.616.842

(2) The influence of personnel fluctuation.

(2.1.) the influence of the outflow: the wage table paid to the departed personnel.

Categories	Month of the departure (end)	The duration of remuneration (months)	No. of months of pay with index[1]			Salary for December N	Coefficient[3]	Total
0	1	2	3	4	5	6	7	8 = 6×7
			100	101,5	103,53			
Medical assistant	Aug	8	3	5		14.800	8,075	119.510
Medical assistant	Dec	12	3	6	3	15.500	12,1959	189.036,45

0	1	2	3	4	5	6	7	8 = 6×7
Promoted medical assistant	March	6[(2)]	6			12.500	6	75.000
		26	Subtotal workers					383.546,45
Doctor	Aug	8	3	5		15.900	8,075	128.392,5
Doctor	Dec	12	3	6	3	15.000	12,1959	182.938,5
		20	Subtotal office workers					311.331
Nurse	Sept	9	3	6		19.000	9,09	172.710
		9	Subtotal technicians					172.710
Duration of remuneration		55	Total general					867.587,45

[(1)] the index of 100 is afferent to the months of January, February, March, the index of 101.5 is applied from 1st of April to 30th of September, the index of 103.53 expresses the value of salaries starting from 1st of October, taking into consideration the multiplication rate: $1.02 \times 101.5 = 103.53$

[(2)] There are two promoted medical assistants: this piece of information is taken into account through the intermediary of the number of months: 2 medical assistants $\times$ 3 luni = 6

[(3)] $8,075 = (3 \times 100) + (5 \times 101,5) / 100$

$12,1959 = (3 \times 100) + (6 \times 101,5) + (3 \times 103,53) / 100$

$6 = (6 \times 100)/100$

$9,09 = (3 \times 100) + (6 \times 101,5)/100$

(2.2.) the influence of incoming personnel: the wage table paid to the recruited staff.

Categories	Month of recruitment (beginning)	Duration of remuneration (months)	No. of months of pay with index[(1)]			Employment salary	Coefficient[(3)]	Total
0	1	2	3	4	5	6	7	8 = 6×7
			100	101,5	103,53			
Medical assistants	Mai	8	5		3	9.500	8,1059	77.006,05
		8	Subtotal assistants					77.006,05
Promoted nurses	Apr	18[(2)]	12		6	14.500	18,2118	264.071,1
Nurses	Aug	5	2		3	12.500	5,1059	63.823,75
Nurses	Dec	1	1		0	13.000	1	13.000
		24	Subtotal nurses					340.894,85
Duration of remuneration		32	Total					417.900,9

[(1)] The index 100 refers to each member of staff in the first months of employment before being granted the general pay raise: only the employees recruited before 1st of April can benefit from the planned general pay raises.

(2) there are two promoted workers, this piece of information being taken into account depending on the number of months, meaning: April – December : $2 \times 9 = 18$.

8,1059 = (5 × 100) + (3 × 103,53) / 100
18,2118 = (12 × 100) + (6 × 103,53) / 100
5,1059 = (2 × 100) + (3 × 103,53) / 100
1 = (1 × 100) / 100

All the data above can be reorganized synthetically in the table below:

Wage table for the year N+1:

Categories	Permanent staff		Departures		Incomings		Wage table N+1
	staff/year	Sum	staff/month	Sum	Staff/month	Sum	Sum
Management	4	1.468.380	-	-	-	-	1.468.380
Nurses	299	54.880.709	9	172.710	24	340.894,85	55.394.314
Medical assistants	56	8.222.928	26	383.546,45	8	77.006,05	8.683.480,5
Medici	38	6.044.831	12	311.331	0	0	6.356.162
Total	397	70.616.843	47	867.587,45	32	417.900,9	71.902.336,35

For the calculation of the wage table for the year N+1, the next formula is applied:

$$\text{wage table year N} = \text{Wage table of the permanent staff (area1)} + \text{Wage table of the departed staff (area 2)} + \text{Wage table of the incoming staff (area 4)}$$

For instance, for the category of medical assistants, the wage table for the year N+1 is: *8.222.928 + 383.546,45 + 77.006,05 = 8.683.480, 5*

This prediction of the wage table takes into account all the increases throughout the following year.

3. Developments regarding wage policy

Interesting aspects related to the consequences of a decision regarding wage policy consist in the calculation of several indexes, which are:

(1) Evolution in level or the level effect represents the rapport between the monthly wage of an employee or of a category of employees, of two given periods, for the same level of qualification. Generally, it is calculated based on the salaries of December, according to the following formula:

$$\textit{Evolution in level} = \frac{\text{Salary December N}+1}{\text{Salary December N}}$$

Example: taking into account the previous data, in order to simplify, we consider that the management personnel is stable for 2 years.

Average wage of December = 30,000 RON

Average wage for December N+1 must be reconstituted taking into consideration the pay raises predicted for N+1 = [N+1 = [(30.000 ×1,015) + (30.000 × 0,008)] × 1,02 = 31.304

$$Evolution\ in\ level = \frac{31.304}{30.000} = 1.0434$$

The evolution in level represents the multiplicative coefficient that is applied to the salary of December N (base 100) in order to establish the salary of December N+1.

(2) Mass evolution or the mass effect represents the variation of the annual wage table for a simulation year, in rapport with a constant wage table.

$$Mass\ evolution = \frac{Annual\ wages\ (year\ N+1)}{Annual\ wages\ (year\ N)}$$

Example. We consider, for illustration, the management personnel

$$Mass\ evolution = \frac{1.468.380}{1.500.000} = 0.97892$$

The mass effect, compared with the level effect, highlights the impact of time, since it integrates in its way of calculation, the pay raise calendar.

In the example above, the increases have been successive and distributed in time, as it follows: 1.5% in April and 0.8% in October for general pay raises, and 0.8 % in July for individual increases, and their impact refers only to certain months of the year N+1.

Therefore, for the same increase in level, the mass effect depends on the date when the pay raises are offered. For the same increase in level, a bigger increase is belated and the pulse of the mass effect is weaker. The equality of the two effects is explained by the fact that that increase was offered on January 1st.

Hence, this index is perceived as being strategic, being rarely communicated, since it measures the real cost that is underwent by the company and that constitutes the basis for wage policy.

(3) The report effect represents the evolution of the wage table of a simulated year, taking into account the increases attributed throughout the previous year. The calculation relationship is based on the formula:

$$\frac{\text{The monthly salary of December N x 12 months}}{\text{The Annual salary (year N)}}$$

This effect underlines the fact that the wage table of the year N+1 will be increased, only on the basis of the pay raise measurements of the year N, irrespective of the wage measures of the year N+1, perspective from which the expression of the numerator represents the limit wage table.

References

Donabedian A, *An introduction to quality assurance in health care,* Oxford Univ. Press, New York, 2003.

Donaldson C., Gerard K. *Economics of health care financing; the visible hand*, Macmillan, London, 1993.

Enăchescu Dan, *Recent Evolutions and Perspectives of the Health System in Romania*, editura Universitară Carol Davila, Bucureşti, 1998.

Enthoven A. C., *The market – based reform of America's care financing and delivery system: managed care and manager competition*, Innovations in Health Care Financing, An International Conference, Washington, DC., March, 1997.

Ginzberg E., - *Medical Gridlock and Health Reform*, San Francisco, West View Press, 1994.

Dumitru C, Ioanas C, *Contabilitatea de gestiune si evaluarea performantelor,* Editura Universitara, Bucuresti, 2005.

Lorenzovici L., *Finanţarea spitalelor: tehnica DRG,* revista Pharma Business, nr. 2, decembrie 2005 – ianuarie 2006.

Mincă, D., Marcu, M., - *Sănătate publică şi management sanitar (Public health and sanitary management)*, Bucharest, Carol Davila Publishing House, 2004.

Mossialos, E., Dixon, A., Figueras, J., Kutzin, J., *Funding health care: options for Europe*, Buckingham, Open University Press, 2002.

Nicolescu O., Verboncu I. – *Fundamentele managementului organizaţiei*, Editura Tribuna Economică, 2000.

Olteanu I *Contracte cu furnizorii de servicii medicale,* Lumea Medicală, seria nouă, 2000.

Popa I. – *Managementul general*, Editura ASE, 2005.

Radu Paul, *Note de curs Economie sanitară,* Bucureşti 2008.