

OCCUPATIONAL HEALTH FOR GOVERNMENT WORKERS OF SAO PAULO NEEDS MORE CARE.

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1 – INTRODUCTION

In 1999 was beginning, a Program of Worker Health for public workers, organized by the “Instituto de Assistência Médica ao Servidor Público Estadual – IAMSPE”, that was maintained until 2005.

IAMSPE maintain a University Hospital – “Hospital do Servidor Público Estadual” that attends public workers linked to Sao Paulo state government.

This program was structured by IAMSPE, for attending public workers linked mainly to units of Education Secretary in eight cities of Sao Paulo State in a region named Baixada Santista.

FIGURE 1 – IMAGES OF “HOSPITAL DO SERVIDOR PUBLICO ESTADUAL OF SAO PAULO”, THAT ATTEND PUBLIC WORKERS AND THEIR RELATIVES.



Figure 2 – City of Santos is one of the eight cities of Baixada Santista were the Public Worker of Education Secretary was attended by the Work Health Program



ASPECTS OF THE CITIES OF BAIXADA SANTISTA

This region was the third more important of state of São Paulo.

Had living there near 1,5 million of people.

The workers attended for this program was part of an universe of 10.000 of public workers witch activities was linked to Education Secretary.

The main part of then was teachers for students that had ages between three and seventeen years old

PROFESSIONALS THAT WERE CONTRACTED FOR WORKING IN THE PROGRAM.

The technical professionals that actuated in this programa was a multi-disciplinary team that had the missions:

- attending the public workers in occupational preventive examinations
- know its works places conditions, and
- propose and execute ameliorating providences for assure better safety and health conditions.

The team was composed by: 1- occupational medicine doctors, 2- safety work engineers, 3- Safety Work Technicians, 4- work nursery, 5- psychologist, 6- Social welfare assistant, and 7- phonologist

ACTIVITIES DEVELOPED OF THE TECHNICIANS.

Safety work engineers and Safety Work Technicians

What they did

The agreement of legal regulations of safety work was checked for then, two times in all the schools. The goal of this procedure was identifying occupational risks and recommending providences to reduce or eliminating them.

Results

The mainly problems more frequent in the schools were: inadequate installations for use of petrol liquefied gas (PLG); inadequate maintenance of equipment of combat of beginning of fire; incorrect use and maintenance of electric installations, inadequate maintenance and insufficient cleanliness of the lavatories.



Figure 3 – Bad condition of the place of work



Figura 4 – Absence of grating in the gutter of pluvial water.



Figura 5 – Table without conditions in use.



Figura 6 – Wire fence with points of wire exposed representing a risk for the children.



Figura 7 – Room of things not in use out of order.

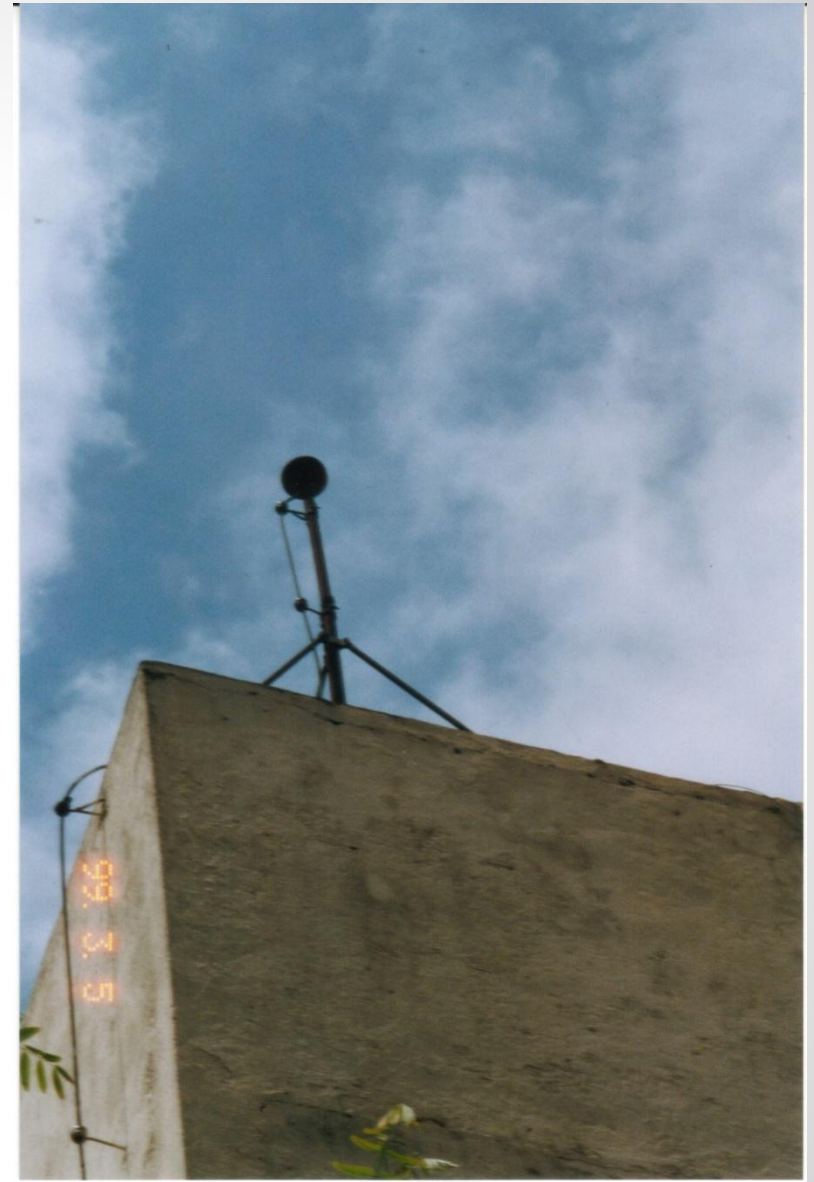


Figura 8 – Radioactive lightening arrestes yet in use.

Table 1 - Results of the inspections and the re-inspections realized after one year by the technicians of the program. Proportion of conformities that was found in 33 public schools established in cyties of Baixada Santista.

		Inspections		Re-inspections	
Item evaluated	Gold	Nº	%	Nº	%
1- Protection against fire	665	231	34,7	245	36,8
2- Electrical instalations	316	68	21,5	108	34,2
3- Emergencies	316	33	10,4	91	28,8
4- Protection against downfalls	475	182	38,3	232	48,8
5- Protection against injuries cuts	475	169	35,6	253	53,3
6- Facilities for hygien and confort	380	229	60,3	279	73,4
7- Good enlightenment	158	49	31,0	77	48,7
8- Favorable physical arrangement	95	59	62,1	75	78,9
9- Personal Protection in use by servants	158	63	39,9	68	43,0
10- Personal protection in use by snack makers.	127	72	56,7	71	55,9
TOTAL OF AGREEMENTS	3165	1155	36,5	1499	47,4

THE ENLIGHTENMENT OF THE SCHOOLS AT NIGHT PERIOD

Engineers and Safety Work Technicians evaluate the level of enlightenment of the schools at night, during the night period.

They found values lower of the recommended by legal norms.

So they observe that in 8 schools of the city of Itanhaem, the proportion on the enlightenment that they found at the blackboards was 125 lux. This value was only 25% of the recommendation of ABNT (300 lux).

Also, at the chairs of the students it was found a low enlightenment too.

So, in this work they conclude that the enlightenment low is not only an occupational problem but also a scholar hygiene problem.

TABLE 2 – ENLIGHTENING OF THE SCHOOLS IN CITY OF SAO VICENTE. THE MEDIA OF VALUES FOUND COMPARED WITH THE LEGAL RECOMENDATION FOR BLACKBOARDS (500 LUX), TABLES OF TEACHERS (300 LUX) AND THE CHAIR OF STUDENTS (300 LUX)

REGIONAL DIRETORY OF SANTOS

CITY	SCHOOLS EVALUATED	BLACKBOARDS		TABLE OF TEACHER		CHAIR OF THE STUYDENTS	
		AVERAGE	%	AVERAGE	%	AVERAGE	%
BERTIOGA	5	214	0,43	255	0,85	269	0,90
CUBATÃO	7	159	0,32	144	0,48	170	0,57
GUARUJÁ	25	166	0,33	198	0,66	198	0,66
SANTOS	24	153	0,31	187	0,62	212	0,71
TOTAL	61	-	-	-	-	-	-

FIGURE 9 - MISTAKES IN THE PROJECTS REPRESENTED PROBLEMS OF CONSTRUCTION. THE CLASSES WITH THE CEILING THAT ARE INCLINING.



THE SUMMARY OF THE ACTIONS OF ENGINEERS AND TECHNICIAN OF SAFETY WORK WERE:

Was low the proportions of conformities with the items of the legal recommendations. One year after the first inspection, it was not observed the ameliorating in a significant form the safety work and the hygiene conditions in schools of Baixada Santista.

The enlightenment of the majority of the schools at night period, presented conditions lower the minimum recommended by Brazilian norms. This problem was in detriment of the educational activities for near 2.000 of teachers and the learning of 57500 students.

Educative technical booklets instructing about the correct use of PLG, the correct use of the electrical installations, and, the adequate measures of use the extinguisher of fire, was prepared and sended to the Schools Directories for use in a education program. But sometimes they were not used for this propose.

They conclude that is necessary more presence of the workers participating in the inspection of the providences, for better results.

Occupational Medicine Physicians

What they did

They did the occupational medical examinations of the teachers and others workers of the schools in prepared places at the own schools.

The figures 10 and 11 seen details of the use of one place of the school for attending the workers in the examinations.

Ethical reports was did and send to the Directories of the schools. These reports inform the state of health of the group and the more frequent diseases between then. Also recomend eductive providences that would be good for the group.

Were attended in occupational examinations 886 workers of public schools within the período of 2004/2005.

RESULTS

Differently what generally we would expect was low the proportion of workers classifieds like sanitary people.

Between the diseases more frequently diagnosed was arterial hypertension, alergic rhinitis and depression.

Its is supposed that this activity had contributed for reduce the absenteeism of the workers.

Table 3 - Diagnosis in Medical Examinations (2004 and 2005).

Diagnosis	Praia Grande	%	São Vicente	%	Santos	%	Guarujá	%	Total	%
Sanitary (Good Health)	117	44,0	76	35,0	86	34,7	43	27,7	322	36,3
Hypertension	40	15,0	49	22,6	58	23,4	20	12,9	167	18,8
Alergic Rhinitis	22	8,3	5	2,3	6	2,4	5	3,2	38	4,3
Dysphonia	3	1,1	20	9,2	0	0,0	9	5,8	32	3,6
Depression	14	5,3	4	1,8	9	3,6	0	0,0	27	3,0
Thyroid diseases	2	0,8	7	3,2	12	4,8	0	0,0	27	3,0
Diabetes mellitus	6	2,3	8	3,7	10	4,0	0	0,0	24	2,7
Pulmonary Diseases	2	0,8	7	3,2	6	2,4	2	1,3	17	1,9
Tendinitis	0	0,0	3	1,4	2	0,8	11	7,1	16	1,8
Chronike headache	0	0,0	9	4,1	1	0,4	5	3,2	15	1,7
Lumbar pain ache	0	0,0	4	1,8	1	0,4	8	5,2	13	1,5
Varizes	4	1,5	3	1,4	3	1,2	3	1,9	13	1,5
Others	6	2,38	13	3,7	10	4,0	10	6,4	34	3,7



Figure 10 – Screening of visual capacity with Snellen Table.



Figure 11– Evaluating arterial pressure during the medical attendance in a room adapted in school.

- **WORK NURSERY.**

What they did?

Its work has like goal develop a program for earlier diagnosis of Diabetes Mellitus, Arterial Hypertension, Obesity, and Gynecologic Cancer.

Were evaluated by this program 52 schools where worked 3365 workers.

Between then 1791 (53,2%) was attended by this program.

Results

The overweight and the obesity show its presence for 47,3% of the workers attended.

The arterial hypertension show elevated in 13,7%, and Glycaemia show higher the normal value in 7,0% of the workers.

Of the women interviewed,

63,4% mentioned that was realized Papanicolau for preventing Gynecologic Cancer;

62,4% that realized the self-breast examination monthly, and that

46,5% mentioned that realize the X-ray of breast at least one time in the past year.

Between the men they inform that

36,8% realize the prostate gland examination in the last year with urologist.

43,8% informed that did the PSA examination.

Despite of these proportions for both sex are far away what we would expected, the numbers in the second year were better the first.



Figure 12 – A talk about chronic diseases and its prevention. The workers answer one questionnaire.



Figure 13 – The workers are invited to a take of arterial pressure.



Figure 14 – A sample of blood is taken for screening of mellitus diabetes.

THE PSYCHOLOGIST AND THE SOCIAL ASSISTANT

What they did?

By interviewing at the local place of work, the licensed workers, their managers and relatives, they analysed the medical licenses worker's of more than three months extension.

They had also the support of the Occupational Medicine Doctors of the Program and the sector of Expertize of São Paulo State Government (DPME-SP) expertizes.

Social assistant and psychologist conduct a study for verifying the proportion of medical licenses, related to the total of hours classes taught during a similar period, between teachers of three different types of institutions.

Table 4 - Causes of the medical license that was informed in the psicosocial interview, to the interviewer by the licensed workers

Causes informed	N. °	%
Mental perturbation and behavior	54	51,4
Osteo muscular diseases	13	12,4
Cardio vascular diseases	9	8,6
Infecçios and parasitic diseases	8	7,6
Malignan tumors	8	7,6
Others	13	12,4
TOTAL	105	100,0

Table 5 - Conclusion of the Technical Group of PST compared with the conclusion of the official decision (DPME).

Conclusion of the PST compared with official decision.	N°	%
According the decision of DPME	18	25,4
Return to work at the same activities	20	28,2
Return to work in alternative activities (re-adpated)	18	25,4
Retired by total incapacity of any work (invalid for work)	15	21,1
Cases compared	71	100,0

It was seeing that there was different decisions about the license for more or less 75% of the licensed workers.

The high proportion of different conclusions was faced because the method applied, there is interviewing each case in his own work place, involving interview of the manager of the licensed worker, involving relatives of the licensed workers, and participating of these interview also technicians with not medical formation, made possible to have better informations of each case.

They conclude that this method conduce to better decisions for licensed workers and for managers.

Psychological stress level test, applied to the workers, exhibit important proportion of workers that had important level of critical stress.

In Tabel 6 is presented the comparison of proportion of medical licenses by number of hours classes worked of teachers that learn at the same age group of children, that representing three different types of institutions.

So the first group was teachers linked to public state government. The second group was of teachers that were linked to public cities government and the third group was of teachers linked to private educational institutions. They conclude that the teacher that were linked to private educational institutions has less proportion of absences to work.

Also they verify that if the teacher works part time in one tipe of institution and part time in another, it is possible for him take medical licence in one of then and not in the other. So it's possible for a teacher takes medical license in a public state governement school but manteining his work normaly in the private school.

Table 6 – Proportion of lost class hours in medical licenses, relationship to hours classes that was previewed for the first semester of 2005, in three different types of institutions.

Type of school	Hours Previewed	Hours worked	Hours lost in medical licenses.	%
Private School	8253	8147	106	1,3
Cytie Gouvernement	130220	126162	4058	3,1
State Gouvernement	237728	220454	17274	7,3
Total	376201	354763	21438	5,7

PHONOLOGIST

What she did

Vocal problems are important discomfort, disability and absenteeism condition for teachers.

The phonologist prepared talks that was ministred for groups of 10 or 15 teachers in a high number of schools.

One questionnaire, including questions about vocal habits of teachers, his perceptions about problems in the work place, and sintoms of vocal changes were aplied in every session.

This talks was ministred for 1272 teachers that worked in 70 schools on the government state schools.

The answers of 677 teathers define some items more frequently associated to Natural History of the vocal diseases linked to work of the teachers of first and second grade.

RESULTS

A- Personal habits of teachers

- Speak high and shout habit was frequent between them.

B- Scholar environment factors

- High level of the noise produced in the neighboring streets, the playground of the own schools and constructions in the neighboring or in the own school.
- The chalk, that is used frequently in the class, is the more important origin of the exposure to dust. Dust from street comes in second place.

C- TEACHERS AFECTED

Vocal problems were more frequent:

- Between teachers that had more then 30 years old, more then 10 years in the state public work, in the women, and, between then that had higher hour load
- Between the teachers of schools were the students had higher ages.
- Are infrequent so other vocal activities mentioned out of the teaching work like the mention of tabagism.

D- Where appear the symptoms

- Lengthy duration
- Moderate intensity
- Stable relationship at their evolution
- Medicament treatment is the better option when they need this intervention.

E- Vocal symptoms more frequent

- Are the type that come and return
- They worse progressively during the day.
- Majority of the persons perceive the vocal changes
- The hoarseness and the gross voice
- Drying throat

4.3 – HUMAN RESOURCES FOR ESTABLISHING ONE HEALTH SERVICE PROGRAM FOR 450.000 STATE PUBLIC WORKERS THAT NOT YET HAD ACCESS TO THIS ACTIVITIES.

It was calculated the number o technical personal according established by Brazilian legal norm of the Brazilian Labor Ministry for private enterprises.

In Table 7 it was presented the number of technical workers that was necessary for the number of state public workers of the state of São Paulo that in april 2004 was 476.568.

State public workers of São Paulo State by units (PRODESP – april 2004)

Units	Nº	%
Education Secretary	254658	53,44
Health Secretary	58285	12,23
Justice Tribunal	39640	8,32
Public Safety Secretary	38924	8,17
Penitentiary Administration Secretary	25259	5,30
University “Júlio de Mesquita Filho” UNESP	8474	1,78
Other units	51686	10,85
TOTAL	476568	100,00

It was proposed for a technical administrative structure:

One Central Coordination,
Six Sectorial Coordinations,
and 24 regional Coordinations.

The technical functions that will be created must include:

Safety Work Engineers, Safety Work Technicians

Occupational Physicians

Work Nurseries and Work Nurse Auxiliaries,

Psychologists, Social Assistants, Phonologists

Administrative auxiliaries.

For covering the necessities of attendance of the universe of public workers of São Paulo state were estimated the necessity of creating 931 technical functions.

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