Breastfeeding: nurses' practice under the perspective of the International Classification of Collective Health Nursing Practices

ABSTRACT
This descriptive and exploratory study aimed to describe nursing diagnoses and interventions under the International Nursing Practice Classification in Collective Health - CIPESC® - in Women’s Health Care, sub-theme Pre-Natal and Puerperium, correlating them to nurses’ competences at Curitiba’s Mother Program. Data used were diagnoses and interventions during nursing consultation from April to July/ 2005. Basic Statistics was used for data treatment. Proper Breastfeeding was the most frequent diagnosis and most interventions are related to strengthening the user to face the health-disease process (68.9%). In spite of nurses’ practice during puerperium, such a competence is not part of the Program Protocol. In conclusion, minor adjustments are necessary in the analyzed diagnoses and the Protocol should be reviewed to entail nurses’ competences that are developed in their practice in health services according to CIPESC®'s registers.

KEY WORDS
Breastfeeding.
Public health nursing.
Health public policy.
Women’s health.

RESUMEN
Estudio descriptivo exploratorio que objetivó describir los diagnósticos y las intervenciones de Enfermería sob a perspectiva de la Clasificación Internacional de las Prácticas de Enfermería en Salud Colectiva - CIPESC® en atención a la Salud de la Mujer, subtema Pré-Natal y Puerperio, correlacionándolas con las competencias del Enfermero en el Programa Madre Curitibana. Los datos utilizados fueron los diagnósticos y intervenciones gerial dozas en consultas de Enfermería en los meses de abril a julio de 2005 y trabajados con estadística simple. El diagnóstico Ama- mantamiento Adecuado fue el más frecuente, y las intervenciones más ejecutadas se relacionaron con el fortalecimiento de la usuaria frente al proceso de salud-enfermedad (68,9%). A pesar de la actuación del Enfermero en el puerperio, esta competen- cia no consta del Protocolo de Programa. Se concluyó en que son necesarios pequeños ajustes en los diagnósticos analizados y una revisión del Protocolo para abrigar las competencias del Enfermero que son desarrolladas en su práctica en los servicios de salud, conforme constan en los registros de la base CIPESC®.

RESUMEN
Estudio descriptivo exploratorio que objetivó describir los diagnósticos y las intervenciones de Enfermería bajo la perspectiva de la Clasificación Internacional de las Prácticas de Enfermería en Salud Colectiva - CIPESC® en la atención de la Salud de la Mujer, subtema Prenatal y Puerperio, correlacionándolas con las competencias del Enfermero en el Programa Madre Curitibana. Los datos utilizados fueron los diagnósticos e intervenciones generados en las consultas de Enfermería en los meses de abril a julio de 2005, y trabajados con estadística simple. El diagnóstico Ama- mantamiento Adecuado fue el más frecuente, y las intervenciones más ejecutadas se relacionaron con el fortalecimiento de la paciente frente al proceso de salud-enfermedad (68,9%). A pesar de la actuación del Enfermero en el puerperio, esta competencia no consta de Protocolo de Programa. Se concluyó en que son necesarios pequeños ajustes en los diagnósticos analizados y una revisión del Protocolo para incluir las competencias del Enfermero que son desarrolladas en su práctica en los servicios de salud conforme constan en los registros de la base CIPESC®.

DESCRITORES
Aileamiento materno.
Enfermagem em saúde pública.
Políticas públicas de saúde.
Saúde da mulher.

DESCRIPTORES
Lactancia materna.
Enfermería en salud public.
Políticas públicas de salud.
Salud de la mujer.
INTRODUCTION

The importance of breastfeeding for child health promotion has been a relevant theme in different campaigns and Brazilian governmental programs since 1981, when the National Breastfeeding Policy was established. Exclusive breastfeeding until the age of six months is not a consolidated practice in the Brazilian society, as the Ministry of Health recommends. Ratios indicate a considerable increase in the number of children under exclusive breastfeeding until six months of age, but the goals proposed by the World Health Organization still remain far off\(^{1}\). As this is a socially determined phenomenon, information and knowledge on the importance of breastfeeding for child health alone do not lead to a rise in exclusive breastfeeding ratios. This is due to countless adverse conditions, including the women’s material living conditions that do not allow them to breastfeed. Nursing has served as an important ally in support, orientation and information practices among women to promote breastfeeding, as this practice consequently promotes child health.

The central goal of Mãe Curitibana, a program launched in Curitiba, the State Capital of Paraná, in 1999, is to reduce maternal-infant mortality by promoting health interventions for pregnant women across the prenatal period and also at the moment of giving birth. According to the Program Protocol, the goals of its actions are: improve prenatal care quality; guarantee access to delivery; reinforce stimuli for maternal breastfeeding; among other woman and child health issues. Prenatal care includes consultations, tests, vaccines, medication, workshops to prepare for delivery and breastfeeding and visit the Maternity hospital. The latter is where the delivery will take place and aims to promote the pregnant woman’s previous bonding with the referral hospital service and should be promoted by the Health Unit (HU). In the postpartum period, the program establishes two puerperal medical consultation and home monitoring by the community health agent. During this period, the newborn’s routine starts, including orientations for childcare consultations and vaccines\(^{2}\). After March 2006, the first puerperal consultation was scheduled at the Maternity itself, on the agenda of the HU nurse where the puerperal woman received prenatal care. Despite this re-definition in the service routine flow – the hospital started to schedule the puerperal woman’s nursing consultation before discharge – the Program manual does not standardize this procedure, i.e. a medical consultation is foreseen.

The computer system that includes the International Classification of Nursing Practices in Collective Health - CIPESC\(^{\circ}\) favors nurses’ activities to put in practice the Mãe Curitibana program. This permits the accomplishment of systemized activities, as well as the registration of Nursing consultations. The Brazilian Nursing Association - ABEn elaborated and developed the CIPESC\(^{\circ}\) project between 1996 and 2000, guided by the International Council of Nurses – ICN and based on the premises of the Brazilian Health Reform and the Unified Health System (SUS), with a view to defining and describing Nursing Practices in Collective Health; constructing an information system that granted visibility to Nursing work by registering and quantifying its production and, thus, contributing to the systemization of Nursing care in Collective Health\(^{1,2}\). Curitiba was the first Brazilian city that applied the results of the CIPESC\(^{\circ}\) project to an electronic patient file, as a tool for Nursing consultation in woman’s and child health care in the entire municipal primary care network. The computer system is used to produce Nursing consultation reports, in which the diagnoses and selected interventions for the respective diagnoses can be identified\(^{3}\). The system was set up in July 2004 for Woman’s Health and, as from July 2005, for Child Health consultations\(^{4}\).

A study carried out to verify how nurses perceive the nursing consultation in primary health care in Juiz de Fora - MG showed that professionals recognize it as an activity that, when executed in favorable conditions, permits greater approximation with users with a view to recognizing their health needs and, in this sense, promoting effective interventions in response to these needs, respecting the principles of the Unified Health System. The favorable conditions the professionals mentioned were: institutional support through protocols, professional legislation, adequate physical space, equipment, theoretical framework to understand the health-disease process and knowledge of the user’s reality. As for the theoretical focus for the Nursing Consultation in primary health care, they considered that it should go beyond the biological aspect of disease. This understanding favors the adoption of health protection measures, and also permits identifying and intervening in processes that put a strain on users’ health. In the interventions the nurses proposed, users were recognized as autonomous subjects who are capable of perceiving and reflecting on their health-disease process\(^{5}\). Hence, a favorable system for Nursing Consultations, systemizing records that permit generating data to reflect on the activity, becomes fundamental to evidence nursing work in primary health care. The lack of systemized records on certain professionals’ actions and activities, in this case nurses, makes them invisible for health system management. Another relevant issue is that the absence of systemized records compromises professionals’ reflection on their work.

In this sense, this study is justified by the importance of breastfeeding and the use of the CIPESC\(^{\circ}\) base for Nursing Consultations in primary health care.
OBJECTIVES

To describe the diagnoses and interventions generated in Woman’s Health Nursing Consultations, subtheme Prenatal and Puerperal Care, emphasizing breastfeeding, and to correlate the interventions generated in the CIPESC® base of Prenatal and Puerperal Nursing consultations with nursing competencies related to breastfeeding in the Mãe Curitibana Program Protocol.

METHOD

This exploratory and descriptive research used data from the CIPESC® System on Nursing Diagnoses and Interventions, generated during Nursing consultations in woman’s health care, subtheme Prenatal and Puerperal care, between April and July 2005, in the Health District Boa Vista (HDBV), one of the nine districts in the city. The choice of the HDBV was due to the existence of consolidated diagnosis and intervention information, which Nurses in this district accessed during their consultations. The Curitiba Municipal Health Secretary put these data at the disposal of the research group coordinated by Prof. Emiko Yoshikawa Egry from the Collective Health Department of the University of São Paulo, for use in the Research Project: Transformations in Nursing work processes in Collective Health: equipping for innovative practice, which this study is part of. Ethical aspects of this research complied with National Health Council Resolution 196/96. Approval for this project was obtained by the Research Ethics Committee at the University of São Paulo School of Nursing, under Process No 415/2004/CEP-EEUSP, and the Curitiba Municipal Health Secretary, Protocol No 102/2004. To organize primary data, previous studies systemized them in an EXCEL® database through simple statistical analysis.

The methodological base was the Theory of Nursing Praxis Interventions in Collective Health - TIPESC developed by Egry(4), when capturing and interpreting the objective reality. To capture the objective reality, TIPESC proposes the acknowledgement of its different component dimensions: singular, private and structure. For interpretation, TIPESC proposed the critical analysis of contradictions that constitute reality, with a view to supporting a transformative intervention project(4).

To capture the reality, the methodological course of this study was subdivided in three moment: information collection available on the websites of the Brazilian Institute of Geography and Statistics—IBGE; the Curitiba Research and Urban Planning Institute—IPPPUC and the Municipal Health Secretary—SMS Curitiba; systemization of the CIPESC® system database; contact with the city. On the IBGE, IPPPUC and SMS - Curitiba websites, data were collected related to demographics, the municipal health network and the epidemiological profile, with a view to characterizing the HDBV territory.

The systemization of the data analyzed in this research started with the organization of information generated during the Nursing Consultations held in April, May, June and July 2005. First, the diagnoses and intervention made available by the system in woman’s health, subtheme Prenatal and Puerperal Care, were grouped. Then, it was identified whether the diagnoses and interventions were put in practice or not and, finally, the frequency they were put in practice was determined.

Contact with the Municipal Health Secretary occurred when the authors got to know the Mãe Curitibana Program Protocol. After they identified standardized competencies for the Nurse in this Program, three meetings were held with the Nursing Coordination of SMS Curitiba. During these meetings, they explored the construction and implantation process of the current version of CIPESC® at the city’s Health Units, as well as the elaboration of the future version. These contacts strengthened the idea that, as CIPESC® in the electronic patient file is a recent construction, it demands research on its strengths and weaknesses.

In the Interpretation of the Objective Reality, the researchers sought contradictions in the different dimensions of reality in the light of the theoretical framework, as presented next.

RESULTS

Characterization of study context

Curitiba, the state capital of Paraná, has an estimated resident population of 1,797,408 inhabitants, according to IBGE population data(9), distributed across 75 neighborhoods. The Curitiba Municipal Health Secretary is divided in new Health Districts (HD) and, at the time of the research, its network comprised 123 Health Entities: 47 Basic Units, 48 Basic Units working with the Family Health Strategy, 11 Complex Health Units, 7 Psychosocial Care Centers, 8 Municipal Medical Emergency Centers, one general Hospital and Maternity and one Clinical Analysis Laboratory. The network also included 131 Family Health teams, 1,149 Community Health Agents and a payroll with 6,321 employees(10).

In woman’s health care, some of the main targets approved in Curitiba’s Municipal Plan (2006-2009) are to put in practice Mãe Curitibana Program actions and train health professionals to perform family planning, prenatal, delivery, puerperium and newborn care actions(11). According to the Annual Comparison 2005-2006, 17,004 pregnant women were enrolled in Mãe Curitibana, practically the same as in 2005(12).

The HDBV is located in the extreme North of Curitiba, with a population of 225,696 inhabitants, 14.22% of the city’s absolute population. The regional age pyramid is highly similar to the city’s, with a great concentration of young people between 15 and 24 years of age and a considerable elderly population (over 65 years of age). The
municipal health network in the HDBV comprises 16 entities, with 10 Basic Units and 3 FHP Units, all of which include a Dentistry Clinic, 2 Basic Units without a Dentistry Clinic and one Municipal Medical Emergency Center\(^\text{13}\). In 2006, the Nursing workforce in the health district included 211 professionals: 48 linked with the Family Health Program (13 Nurses and 35 Nursing Auxiliaries) and 163 linked with the Basic Health Units (25 Nurses and 138 Nursing Auxiliaries)\(^\text{14}\).

With regard to child mortality, indicators in Curitiba have been dropping, with an 84% reduction between 1979 and 2006. When Mãe Curitibana was implanted, the coefficient dropped from 14.77/1000 liveborns (in 1999, year of its application) to 10.32/1000 liveborns in 2006\(^\text{15}\). As for the maternal mortality rate, in 1999, the HDBV was responsible for 28.6% of the city’s total rate, calculated at 71.1/100,000 women. In 2005, six years after the Program was implanted, the district reduced its share in the municipal rate of 32.7/100,000 women. In 2005, six years after the Program was implanted, the district reduced its share in the municipal rate of 32.7/100,000 women to 12.5%\(^\text{16}\).

**Nursing diagnoses and interventions**

In 2005, 239,412 Nursing Consultations took place in Curitiba’s municipal network, part of which used CIPESC\(^\text{®}\). In the Prenatal and Puerperal Care subtheme, this base offers 33 Nursing diagnoses and 238 interventions for use during the Nursing Consultations. Between April and July 2005, it was verified that all interventions available in the system for the Prenatal and Puerperal Care subtheme were used (totaling 210). Thus, it is observed that CIPESC\(^\text{®}\) was actually used.

In line with the collective health perspective, the Nursing Diagnoses were classified in two types: Nursing Diagnoses that appoint strengthening in view of the health-disease process and Nursing Diagnoses that appoint wastage in view of the health-disease process. For the sake of this classification, the judgment axis of the Diagnoses was used, with diagnoses whose judgment foci were: adequate, normal, intact, complete, satisfactory considered as the first type; and those whose judgment foci were: inadequate, altered, incomplete as the second type, while all other diagnoses that appointed alterations in the health-disease process were considered coherent with wastage. In the Prenatal and Puerperal Care subtheme, the sum of all strengthening interventions used totaled 68.9%, while 31.1% of the interventions appointed wastage.

The diagnosis Adequate Breastfeeding, available for the Prenatal and Puerperal care subtheme, showed the highest frequency among the 33 diagnoses that existed in the system. In total, 1,142 uses of interventions related to the diagnosis were identified. Next, the most frequent diagnoses were: Adequate Fetal Development (516), Intact Breasts (438) and Intact Nipples(393).

**Graph 1 - The 15 interventions most used during nursing consultations at DSBV health units between April and July 2005, in the Women’s Health program, subtheme birth and puerperium - Curitiba - 2007 - Source: Research data**

Out of the 15 most used interventions (Figure 1), among the 238 available for the subtheme, 13 refer to breastfeeding. Ten of these are related to the diagnosis Adequate Breastfeeding, two to the diagnosis Intact Breasts and one is indirectly related to the theme through the diagnosis Adequate Self-Care, as this intervention is used in relation to the woman’s participation in a workshop at the Health Unit, when the breastfeeding theme is addressed. The other two interventions in the universe of 15 indicated above refer to diagnoses that appoint strengthening in view of the health-disease process.
In total, the set of 13 interventions related to breastfeeding were used 1331 times, in a universe of 4792 interventions used. Hence, the 13 interventions represent 28% of all interventions demanded between April and July 2005 at HDBV. It was also verified that, out of the 13 breastfeeding-related interventions, as presented above, 12 are directly related with breastfeeding, 10 of which exclusively with the puerperal phase, belonging to the Adequate Breastfeeding diagnosis, while the other 2 (in this universe of 12) are related with Intact Breasts and Intact Nipples. The latter two may have been used during Puerperal as well as Prenatal consultations, as information on the phase the woman is in is not available in the reports produced and analyzed in this study.

**Nursing competencies in the Mãe-Curitibana Program**

The Nursing Competencies according to the Mãe Curitibana Program protocol (Chart 1) range from administrative actions, such as forwarding and records in information systems, to care actions like the Nursing Consultation, including risk assessment, monitoring of pregnancy problems and discussion of educative contents. The protocol does not register activities related to the puerperium as Nursing responsibilities.

**Chart 1 - Nursing Competencies identified in the Mãe Curitibana Program protocol, Curitiba Municipal Health Secretary - Curitiba - 2007**

<table>
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<th>NURSING COMPETENCIES</th>
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<tr>
<td>Request the pregnancy test (TIG);</td>
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<td>In case of a positive TIG, open the electronic patient file, register the pregnant woman in the system to obtain the SISPRENATAL number and register it in the pregnant woman's booklet;</td>
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<tr>
<td>For non-computerized health units, obtain the SISPRENATAL number from the list provided by the central level;</td>
</tr>
<tr>
<td>Write down the name of the referral Maternity hospital in the pregnant woman's booklet;</td>
</tr>
<tr>
<td>Request routine exams in the Mãe Curitibana program;</td>
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<tr>
<td>Verify the pregnant woman's blood pressure and measure her weight and height;</td>
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<tr>
<td>Perform the nursing consultation upon the pregnant woman's registration and alternate with medical consultations, depending on the risk or needs classification;</td>
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<tr>
<td>Perform risk assessment during the nursing consultation;</td>
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<tr>
<td>If any risk is detected, refer the pregnant woman for a consultation with the health unit physician;</td>
</tr>
<tr>
<td>Monitor high-risk pregnant women under the professional's responsibility regarding attendance to scheduled appointments (health unit and referral services) and adequate use of established medication;</td>
</tr>
<tr>
<td>Monitor pregnant women with urinary tract infection under the professional's responsibility regarding attendance to consultations at the health unit, adequate use of established medication and control of infection cure;</td>
</tr>
<tr>
<td>Give the pregnant woman a folder with educative contents and advise her about the functioning of the Program;</td>
</tr>
<tr>
<td>Advise and coordinate the health team to monitor the pregnant woman, with particular attention for high-risk patients;</td>
</tr>
<tr>
<td>Advise and coordinate the health team for educative actions involving pregnant women;</td>
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<tr>
<td>Assess the immunization scheme.</td>
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</table>

**DISCUSSION**

Among the four diagnoses whose interventions were most used, three were related to breastfeeding (Adequate Breastfeeding, Intact Breasts and Intact Nipples). Therefore, the authors highlight these interventions’ potential effect on child health as, in woman’s health, they indicate the care taken with the breasts to promote the child’s adequate nutrition in the first months of life, in accordance with current health program recommendations.

As the term itself says, interventions for the diagnosis Adequate Breastfeeding are specifically used with women during puerperal consultations, in this case breastfeeding women, as it implies the use of the breast for breastfeeding, instead of its preparation for this purpose during the prenatal period.

When using the diagnoses Intact Breasts and Intact Nipples, one cannot identify what moment in the lifecycle the woman has reached – prenatal or puerperium. Thus, the researchers reflected on what period this user would be in at the time of the consultation and, consequently, on when the Nurses have used the interventions related with these diagnoses, whether in the prenatal or puerperal period. These are the only two diagnoses available in the system which Nurses can use for breast preparation advice in the pregnancy period.

In chapter Prenatal Care, subtheme Relevant aspects of pregnant women's assessment, the Mãe Curitibana pro-
program protocol recommends, during the third trimester, the use of a bra with a central hole (supertrauma) to expose the nipple and areola, preparing an adequate latch[17]. Proposed interventions in the diagnoses related to breast care, however, include performing daily breast exercises as advised and taking the nipple between the index fingers and rubbing in all directions with coming-and-going movements.

It should be discussed that breast preparation for breastfeeding, which used to be so stimulated in the past, is not recommended. In case of flat or inverted nipples, the World Health Organization (WHO)[18] advises to help the puerperal woman soon after the baby is born to improve the latch, and considers that physically preparing the breasts before birth does not offer benefits and should not be a routine practice, not even in case of nipples with these characteristics. Ministry of Health orientations are similar, highlighting that breast preparation during pregnancy should not be recommended as it does not present any results and also entails risks to induce premature birth[18].

Women’s trust in their breastfeeding ability can be reduced by a prenatal breast exam, especially if they have inverted or flat nipples[18]. Activities that advise pregnant women on breastfeeding have exerted a positive impact though. In prenatal follow-up, it is beneficial to continue this approach by supporting and motivating women for breastfeeding[18].

In a study that involved puerperal women and aimed to verify the occurrence of mammary papilla injuries, it was verified that the most relevant factors in this type of problem are: gestational age of the infant, mother’s skin color, parity and anesthesia type received during delivery. No statistical significance was found for the type of delivery or nipple. Women with protruding nipples even presented higher incidence levels of injuries caused by excoriations and vesiculated injuries. This finding goes against literature, which generally appoints that these injuries are more present in semi-protruding nipples. Newborns’ suction pattern was also assessed in a study that found that only 5.95% latch adequately during hospitalization, rising to 43.33% during the postnatal consultation. Thus, the first week after the baby’s birth is the most critical period for the occurrence of these injuries, when professional activity is fundamental, also to avoid early weaning[20].

If the Nurses are using the interventions performing daily breast exercises as advised and taking the nipple between the index fingers and rubbing in all directions with coming-and-going movements, which belong to the diagnoses Intact Breasts and Intact Nipples, during puerperal consultations, these should be reviewed and adapted to current evidence, replacing them by maneuvers that help to increase the nipple before the feeding session, such as simple stimulus and cold compresses[18]. In case these interventions are demanded during prenatal consultations, although this attitude is in line with the Mãe Curitibana Program protocol, which is still being used in the city, it diverges from WHO[17]. This last hypothesis is highly probable as, in the Intact Breasts and Intact Nipples diagnoses, considerable reference is made to the protocol through the intervention advise on breast and nipple care according to protocol[18].

Although Nurses considerably focus on the puerperal phase, as demonstrated by the frequency at which interventions for the Adequate Breastfeeding diagnosis are used, it is contradictory that Nursing competencies in the Mãe Curitibana Program Protocol do not include nursing tasks related to this phase in women’s lives. Hence, puerperal consultations, which have shown great demand for Nursing interventions and, consequently, lead to the use of countless interventions – according to the CIPESC® records analyzed in this study – are included in the protocol as a direct responsibility for medical professionals.

Nursing care for puerperal women is fundamental to avoid nipple injuries and promote breastfeeding as a positive and satisfactory experience for women. Prenatal orientations are relevant but, often, after birth, professional actions are indispensable. Considering that, for a delivery without problems, women stay only few days at the Maternity hospital, they will seek support exactly from primary care professionals, mainly Nurses.

CONCLUSION

Nurses work to promote women’s health in the puerperium because this phase demands Nursing interventions in their own as well as in child health. Therefore, the Mãe Curitibana Program protocol should update Nursing competencies, including activities that involve puerperal women, so as to attest what is already ongoing in health services, in accordance with records in the CIPESC® base.

In view of the results, the researchers suggest including the diagnosis Flat or Inverted Nipples in the Breastfeeding Woman in CIPESC®, as well as adapting the interventions associated with the diagnoses Intact Breasts and Intact Nipples. The researchers suggest adding the time axis for the woman’s development period; adding the terms Pregnant Woman, Puerperal Woman and Breastfeeding Woman in the diagnoses, with a view to delimiting the phase the user is in during the respective Nursing consultation.

The use of CIPESC® is very recent for Nursing and health services. In this phase, although initial, the reflection in this study contribution to nursing discussions on the use of CIPESC® in primary health care services with the Nursing Coordination of the Curitiba Municipal Health Secretary. The proposed suggestions permitted evidencing Collective Health Nursing work, making it increasingly concrete for nursing professional and for the management of the Municipal Health System.
REFERENCES


Correspondence addressed to: Maria Marta Nolasco Chaves
Rua Colombo, 868 - Casa 3 - Juvevê
CEP 80540-250 - Curitiba, PR, Brazil