Effectiveness of community health agents’ actions in situations of social vulnerability

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Introduction

Evaluation is purposeful activity examining multiple, diverse realities [1] that affect the implementation of social interventions and their management [2]. As political activity, evaluation involves partnerships among managers, stakeholders and internal and external evaluators. These partners review common interests and concerns to modify policies and modi operandi, and ultimately, to influence human life [3]. Evaluation is particularly sensitive to social problems and expectations; it documents their features, incidence and prevalence [2].

This article reports the quanti-qualitative results of an in-service effectiveness evaluation of interventions to reduce health risks for socially vulnerable people by community health agents (CHAs) (Agentes Comunitários de Saúde) in Brazil. CHAs are key personnel within the nationwide community health agent program (CHAP), created in 1991, that operates within Brazil’s Family Health Strategy (FHS). CHAP considers social inclusion through health education and promotion, a cornerstone of collective health. Most CHAs are from the communities they serve. This article documents some crucial features of CHAs’ work in dangerous neighborhoods previously inaccessible to health professionals (HPs). Knowledge about these residents’ health needs, challenges and difficulties due to their social vulnerability may not have reached health care providers.

Social context of the evaluation

Needs for basic health services, life necessities and personal safety challenge health promoters who try to provide equal access to primary health care (PHC) and improve health indicators in vulnerable populations. Vulnerability is evident in risk of disease and harm from conditions in people’s environment [4]. Vulnerability is a consequence of poverty, threats to individual safety, lack of power and of poor potential for and limited capacity to change unfavorable economic and psychosocial-cultural conditions [5].

CHAP is new, and little assessment of CHAs’ roles and competencies has been done. The evaluation reported here is of the CHAP established in 2001 in Aracatuba, state of São Paulo. As of December 2006, 116 630 people (in 32 895 families) were clients of the 197 CHAs and their affiliated FHS teams. Clients’ major health problems were hypertension, diabetes and alcoholism (M. Kamikihara, personal communication, April 2007).

Families lived under unequal conditions. Some had brick houses, clean running water, sewers, garbage pickup, electricity and paved roads. Others lived in shantytowns with unpaved pathways and sewage flowing into rivers, in shelters made of...
plastic bags and cardboard boxes or other available materials [6]. Most of the houses were on land that the families did not own. No FHS statistics exist about living conditions in these shantytowns [6] or ‘underserved communities’ (comunidades carentes, currently used in place of the derogatory term favelas).

Currently, there are 35 interdisciplinary FHS teams in Aracatuba, delivering PHC to ~68% of residents. Only two of the dentists and four of the university-educated nurses are specialists in community/public health (for other characteristics of FHS teams, see Table I). Since these teams do not include social workers and dieticians, all clients needing these services are referred to the Social Action Secretariat, the Health Secretariat, the Local Community Health Centre or the School of Nutrition at Universidade Paulista.

**Literature review: the community health agent program and CHAs’ roles**

We intentionally limited our review of the enormous literature on evaluation or reorganization of health services to programs similar in structure to CHAP; that is, part of a legislated national, integrated, unified health care system; part of a national structure of social, civil and political organizations; and delivering PHC locally, as a right of citizenship.

To our knowledge, there is no other country that has implemented a similar PHC program as Brazil did in such a massive and rapid way: an uninterrupted nationwide PHC program; a program aiming to develop integration and support to Family Health Program; a strategy to extend the actions of PHC to families and a strategy philosophically embedded in ideas of giving voices to marginalized populations and centering the family unit as a main actor for the effectiveness of PHC. FHS incorporates concepts of equity in health and includes the establishment of mechanisms for marginalized populations to voice their health concerns and to seek remedies for them, through municipally based health councils.

The municipal health councils (MHC) are directly responsible for allocation of the financial resources for health, which come from the federal and state governments, ensuring a direct link between the health concerns of impoverished communities and the allocation of resources for health. The MHC is one of the most important forums for community empowerment. MHCs are permanent, democratic assemblies of government officials, health service providers, professionals and citizens. Their mandate is to consolidate health policies and promote equity in health. To do this, they develop health strategies, manage health policies and oversee distribution of financial resources for PHC [6]. The roles of CHAP and the CHAs in this scenario are to be enablers and mobilizers of groups in their communities to channel their health concerns to the PHC teams and to the MHC.

While Brazil’s PHC initiative is unique in many respects, it shares in common with other Latin American neighbors, that it is nationwide in scope and is the principal strategy for extending PHC to

**Table I. Composition of the family health strategy team in Aracatuba, November 2006**

<table>
<thead>
<tr>
<th>Position</th>
<th>Male/female ratio</th>
<th>Monthly salary</th>
<th>Total system cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician: $n = 35$ (10.4%)</td>
<td>34/1</td>
<td>R$ 4500 (US$ 2054)</td>
<td>R$ 157 500 (35.9%)</td>
</tr>
<tr>
<td>University-educated nurse: $n = 35$ (10.4%)</td>
<td>1/34</td>
<td>R$ 2100 (US$ 958)</td>
<td>R$ 73 500 (16.8%)</td>
</tr>
<tr>
<td>Auxiliary nurse: $n = 35$ (10.4%)</td>
<td>2/33</td>
<td>R$ 800 (US$ 365)</td>
<td>R$ 28 000 (6.4%)</td>
</tr>
<tr>
<td>Dentist: $n = 17$ (5.1%)</td>
<td>1/16</td>
<td>R$ 4000 (US$ 1826)</td>
<td>R$ 68 000 (15.5%)</td>
</tr>
<tr>
<td>Dental assistant: $n = 17$ (5.1%)</td>
<td>1/16</td>
<td>R$ 800 (US$ 365)</td>
<td>R$ 13 600 (3.1%)</td>
</tr>
<tr>
<td>CHA: $n = 196$ (58.6%)</td>
<td>12/184</td>
<td>R$ 500 (US$ 228)</td>
<td>R$ 98 000 (22.3%)</td>
</tr>
<tr>
<td>Total = 325 (100%)</td>
<td>51/284</td>
<td></td>
<td>R$ 438 600 (100%)</td>
</tr>
</tbody>
</table>

Conversion: 1US$ = R$2.19 (R = Brazilian Real currency; commercial rate on 28 November 2006).
all Brazilian families—especially those living in impoverished, conditions. Where it is unique is that health care is a legislated constitutional right of all citizens. The FHS—the program framework for PHC—goes beyond the standard basic package of health care services for all. So, discussion about the current state of knowledge from other countries’ related experiences seems impracticable.

CHAP has provoked ongoing ethical and political debate among intellectuals, decision makers and HPs. Within PHC, HPs have operationalized the new paradigm of health education, which promotes social inclusion and social justice, concretizes governments’ disease-prevention discourse and responds to communities’ expressed health needs. CHAP has political capital—for politicians, administrators, HPs and clients—and has been discussed at a National Health Forum as a way to distribute power and express national legislators’ commitment to making PHC a human right.

All of the above features are in the World Health Organization’s recent proposal to renew PHC in the Americas [7] using a health–human rights approach. Future evaluations will be guided by this new approach, which reshapes the relationship between health and human rights [8]. It reinforces the power of clients in PHC systems to choose services and it questions their efficacy and makes HPs accountable to the populations they serve [9].

CHAs work directly with residents to identify health problems, provide health information and refer residents to HPs on the local FHS team. They follow up with clients to ensure successful treatment and to protect, promote and restore their general health [10]. In July 2002, CHAs were legally recognized as professionals [11]. Among 172 000 CHAs in Brazil in 2003, 81% were women and 67% were young. Most worked in urban areas, and had a very low monthly salary of R$ 300 (~US$ 136). Across Brazil, education levels of CHAs were generally low: 66% had completed elementary school or less and 18% had finished high school [12]. By 2005, there were 195 000 CHAs in Brazil [13]. Requirements for becoming a CHA include living in the community where one works, literacy and completion of CHA training [12], currently coordinated by regional Schools of Public Health [14].

CHAs’ work puts into practice the Brazilian concept of ‘integration’ in family PHC. Few evaluations have explored either FHS’ more traditional PHC programs or CHAP. One study showed that FHS prioritizes social risks and considers developing human potential key to health [15]. Integration takes into account different lifestyles and health needs. It promotes a culture of health, education for health and self-management of health conditions and supports simple health technologies [16]. Since CHAP began, national health indicators have improved, including adherence to hypertension and diabetes treatments, use of prenatal services, children’s immunization and effectiveness of ambulatory consultations for clinical problems [10]. CHAP has increased health vigilance among vulnerable groups: pregnant women, children, newborn babies, individuals living with chronic diseases and the elderly—essential in PHC.

As in other small-scale community-improvement projects in developed and developing countries [17, 18], CHAs act as informal health educators in poor, socially marginalized areas, whose residents feel that they are disempowered and lack rights [19–21]. CHAs are mandated to provide leadership, heighten awareness of rights and facilitate communities’ and citizens’ empowerment. CHAs sometimes uncover conflicts, lack of structural supports for vulnerable people and society’s reluctance to protect them [19]. CHAs facilitate the provision of PHC to vulnerable groups in their communities [22]. Their social engagement with clients bridges the community and the FHS [21], increasing satisfaction with health services [23].

CHAs faced resistance to acceptance as HPs from other HPs (mainly nurses)—due to issues of liability, unclear roles, their ambiguous position in the entrenched physician/nurse-based hierarchy and overlap with work assigned to auxiliary nurses. In the past, the well-documented passivity, submission and obedience characteristic of Brazilian nurses, and their own experience of power restrictions [24–26], contributed to nurses’ resistance to
accepting CHAs and how they unbalanced traditional power sharing on interprofessional teams.

**Evaluation questions and objectives**

The scope of CHAs’ professional activity raised questions about their effectiveness at improving clients’ general health and quality of life, facilitating social inclusion, minimizing effects of social vulnerability and protecting their clients’ human rights. These questions led to three objectives for the exploratory in-service evaluation.

(i) To describe ways in which CHAs deal with issues of health and social vulnerability.
(ii) To identify CHAs’ view of factors that facilitates or constrain their actions to improve health.
(iii) To analyze CHAs’ understanding of clients’ social vulnerabilities and the impact of the interventions CHAs choose to reduce these vulnerabilities.

**Method**

In February 2006, the local health authority in Araçatuba invited the Toronto evaluators to design an internal–external evaluation of CHAP. FHS staff members and managers, along with consultants from Brazil and Canada (university faculty and health researchers) comprised the evaluation team. The internal evaluators occupied a range of positions: management consultants, system planners, liaisons, decision-support specialists and expert troubleshooters [3]. Two short videos were made by three Araçatuba evaluators to introduce the local FHS to the Toronto evaluators. The videos’ key messages were (i) the national FHS links communities to FHS teams, (ii) FHS policy is based on social inclusion, (iii) Araçatuba’s FHS teams increase opportunities for seniors to socialize and enhance adult self-esteem, physical and mental well-being and (iv) CHAs educate children to actively contribute to their families’ health. The Toronto evaluation team members held two teleconferences with the makers of the videos, to clarify information about CHA practice and issues.

The absence of any validated measurement tools, appropriate to the in-service evaluation, led us to create an original questionnaire. The Curriculum Guide for CHAs technical course coauthored by the Brazilian Ministries of Health and Education [27] formed the basis for the questionnaire. Content related to the specific attitudes, actions, competencies and skills were adapted as questions. We developed 38 questions, each with five options for action in given situations. Three experts reviewed the questionnaire and assessed it for content validity, sensitivity to local conditions, biases and the comprehensiveness of questions. Experts reviewed the questionnaire’s linguistic clarity, completeness and use of professional terminology commonly used by the CHAs. Three CHAs participated in a pilot testing to assess the questionnaire’s clarity and easiness to reading. We refined the questionnaire by improving the use of plain language. The lack of repeated measures and availability of alternative instruments measuring the same concept limited our ability to test the reliability of this tool. It is the weakness of this evaluation and caution should be used in generalizing the results.

In the questionnaire, the first five questions collected sociodemographic data about the CHAs; the other 33 explored professional scope of practice [27]. A member of the local team personally invited all 196 CHAs to a presentation on the in-service evaluation. Other meetings were held with local authorities to plan the data collection. Since the CHAs had not actively participated in an evaluation before, the Toronto evaluators were careful to safeguard their rights. Fieldwork occurred from 12 to 18 April 2006 in an auditorium in the Municipal Council building. A consent form (in plain language) was presented and discussed. CHAs were assured of confidentiality and that they were not obliged to participate; non-participation would not affect CHAs’ jobs in any way. All 187 CHAs present signed the forms. They asked whether they could add comments to the questionnaire and were told they could.
Quantitative and qualitative data were compiled manually, with content analysis [28] used on qualitative data and descriptive statistics calculated for quantitative data. In analyzing respondents’ comments, the researchers categorized responses and then grouped those with similar meanings or categories. This approach was required because comments ranged from single words to short sentences. Copies of the final evaluation report were submitted to local political and health authorities. The Mayor of Aracatuba received the final report in July 2006, with a special request from the researchers for its distribution to all CHAs, FHS teams and communities.

**Ethical considerations**

Being exploratory and in-service, the evaluation plan was not subject to external ethical review. Completely anonymous participation was impossible, because data were collected during a meeting. To safeguard individual information, only aggregate data were reported. Confidentiality was ensured, because raw data without personal identifiers were compiled by only four external evaluators. One Toronto-based evaluator added her analysis to the qualitative findings. Signed consent forms and filled-in questionnaires were locked in an internal evaluator’s office; no one else was allowed access.

**Results**

Among the 187 CHAs who participated in this evaluation, 67% had an average of 1–5 years of work experience. Nearly all (98%) had no previous experience as professionals in the health field. Most were females (83%) and between 20 and 40 years of age (69%). Sixty-three percent had completed high school, 12% had a university degree and 12% had interrupted their university studies. Thirteen percent were also educated for other professions: 10 in health (e.g. radiologist, auxiliary nurse, nurse technologist, pharmacy or nutrition technologist) and 9 in administration (e.g. human resources manager, business manager, accountant, secretary, information technologist, data entry operator or occupational safety officer). Four held teaching certificates, one was a theologian and one a hairdresser.

These educated CHAs demonstrated a high level of understanding of work-related tasks, and completed accurate and detailed community diagnoses, all of which account for their positive impact on actions and interventions by the FHS team. Since most CHAs in Brazil have far less education [12] than the Aracatuba sample, the generalizability of our results may be limited.

**CHAs’ knowledge of risks in socially mobilizing clients**

With no specific training in this area, 38% of CHAs felt unable to engage clients collectively, teaching them how to defend their rights. Thus, they rarely used social mobilization. CHAs reported equal numbers of negative (35%) and positive (35%) experiences advising individual clients to complain to the local health authority and the Consumer Complaints Board. Most clients believed that their complaints would never be taken seriously.

CHAs’ attempts at social mobilization were based on a limited understanding of its collective aspect. CHAs’ understanding of risk for individual clients focused only on medical conditions or environmental factors (e.g. standing water) sure to affect individual health. Most did not associate any risk or stigma with family violence, family crises, mental disorders or physical disabilities. The risks that CHAs identified were mostly for medical conditions; 53% were able to identify medical conditions and refer clients to physicians or the FHS team. Environmental risks identified included insects, snakes and rodents (79%).

Only 21% of CHAs responded to questions about their ability to teach strategies for dealing with discrimination. Of those who responded, 16% of them reported that they taught strategies for dealing with discrimination to those clients who experienced discrimination as a result of living with mental illness or cerebral palsy. Only 11% of the respondents presented strategies to their clients for dealing with discrimination based on skin color, physical
appearance, financial situation, sexual orientation or chronic disease.

**Interventions to facilitate clients’ social inclusion and personal safety**

Abandonment and abuse of seniors, children and teenagers challenged the CHAs’ abilities to intervene—and most did not. For example, when CHAs suspected child sexual abuse in a household, they often ignored it. However, 37% of CHAs notified the FHS team, looking for support and a team decision. Most did not act autonomously on abuse and did not use available options: writing to their immediate supervisor, reporting the incident to the Children’s Protection Board or calling the abuse hotline anonymously. In cases of inadequate care of children, 52% actively explored the situation through friendly conversation with parents about the care. In cases of child abandonment, 56% took action: telling the FHS team immediately and requesting referral to social workers (35%), finding relatives or friends in the community to care for the children (11%) and talking with the children to collect information about the situation (4%). They intervened less actively with abandoned seniors. Only 28% told the FHS team and requested referral to a social worker, while 10% asked where their family members were and 9% asked seniors why they were abandoned.

**Interventions to protect clients’ human rights**

Education is the constitutional right of every child, as per the 1988 Constitution of Brazil. When CHAs encountered children who were not enrolled in school, 63% addressed this situation; most spoke to the parents. When CHAs encountered illiterate teenagers, whom they could not refer to social workers, only 17% explored the reasons with parents and 17% talked to the teens about their motivation to study.

**Interventions to enhance clients’ quality of life**

In improving quality of life, CHAs perceived themselves as skilled group facilitators and effective health educators. However, 67% said that they lack skills to facilitate discussion groups about ‘senior abuse’, 60% about ‘child abuse’ and 50% about ‘avoiding unwanted pregnancy’. None of the CHAs said that they could facilitate discussion groups on any of the following topics: family violence, parental education about birth, newborn care and abuse, sexual abuse among family members and partners’ joint discussion and decision making about family planning.

**Integration with the practices of family physicians and registered nurses**

CHAs reported working best when they were able to integrate their work with that of physicians and nurses. Many cited good communication among FHS team members (83%), good communication during team meetings (80%), autonomy in their community work (71%) and opportunities to talk directly to physicians (53%). To sustain this integration, 58% of CHAs visited their clients to ensure compliance with instructions that physicians gave them directly and 52% linked the community to physicians by reporting clients’ concerns. Fifty percent found opportunities to work jointly with physicians and 38% worked with nurses, mainly during frequent home visits.

**Qualitative findings**

This section presents findings related to CHAs’ political knowledge and other information that they volunteered to explain their questionnaire answers. The CHAs wrote 60 comments beside 19 questions about abilities, actions and perceptions of their technical skills and competencies.

**Political knowledge about the municipal health council**

We hypothesized that CHAs’ knowledge about the composition, goals and functioning of the MHC would predict their readiness to utilize it to address their clients’ concerns, interests and health disparities. In turn, we hypothesized that CHAs would, accordingly, mobilize community members to express health concerns so that CHAs could take them to the MHC. We felt that CHAs would use this...
mechanism to facilitate social inclusion and protect human rights.

However, only 41% answered that they knew about the MHC. Another 35% did not feel that they had any knowledge of the MHC but nevertheless defined it. A further 5% reported being unsure how to define the MHC; however, their definitions resembled those of CHAs who claimed knowledge. CHAs defined the MHC as an assembly, a group of people, an organization or a council (see Table II). Only 3% reported no knowledge at all.

CHAs also defined the MHC as comprising representatives of civil society and health authorities, with decision-making power over project management and policy development, as well as planning, monitoring and evaluation of the use of financial resources. They highlighted the MHC’s role as a public forum for addressing health issues in the municipality.

Table II. CHAs’ definitions of the municipal health council

<table>
<thead>
<tr>
<th>An assembly</th>
<th>A group of people</th>
<th>An organization</th>
<th>A council</th>
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<tbody>
<tr>
<td>To make decisions about municipal health issues</td>
<td>Concerned with municipal health</td>
<td>To monitor health in the municipality</td>
<td>To improve financial accounting and distribute resources according to health needs</td>
</tr>
<tr>
<td>Experienced professionals who make major decisions on health services and decide on measures to resolve municipal problems</td>
<td>To discuss and propose ideas for maintaining good health</td>
<td>To manage the municipal public health system</td>
<td>Community members work with the Municipal Health Secretariat to prioritize health issues and oversee the Secretariat’s budget</td>
</tr>
<tr>
<td>Community representatives, e.g. directors, politicians and HPs, who discuss projects to improve health services and decide on measures to resolve municipal problems</td>
<td>To advise people on disease prevention</td>
<td>To distribute financial resources according to municipal priorities</td>
<td>To alert local health authorities about health problems and decisions that should be made</td>
</tr>
<tr>
<td>To debate ideas and ways to enhance health by studying and analyzing the way the municipality is developing, its problems and solutions to those problems</td>
<td>To manage the unified municipal health system</td>
<td>To manage the unified municipal health system</td>
<td>Based on the World Health Organization’s aim to promote well-being of individuals and their communities</td>
</tr>
<tr>
<td></td>
<td>To jointly work with other levels of government on health-related problems</td>
<td>To organize health interventions and to solve related problems objectively</td>
<td>To analyze and remedy local health problems through conferences and videos, in order to prevent health problems</td>
</tr>
<tr>
<td></td>
<td>To fight for people’s well-being</td>
<td>To evaluate the performance of HPs and the quality of health care they provide</td>
<td>To evaluate the regional health system by analyzing what is working and what is not</td>
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<td></td>
<td>To discuss projects and their implementation, and to evaluate the health of the municipality</td>
<td>To represent citizens in establishing public health priorities as well as approving health policies and passing municipal laws</td>
<td>Includes community groups who care about local health and improve CHAs’ work with community members</td>
</tr>
<tr>
<td></td>
<td>To prepare periodic reports on health needs</td>
<td></td>
<td>Has legal and constitutional power to establish and evaluate municipal health policies</td>
</tr>
<tr>
<td></td>
<td>To resolve health-related problems</td>
<td></td>
<td>Understands community health and needs</td>
</tr>
<tr>
<td></td>
<td>Physicians, nurses, local health authorities, with the community’s participation, contribute ideas and help to solve health-related problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Representatives of civil society propose public health policies and approve or reject them</td>
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</table>
Despite such knowledge, 86% of CHAs had never attended a MHC meeting, and only 2% regularly attended. Possible explanations may be that MHC meetings are in the evening and are not publicized unless a critical health issue needs to be discussed. With such a low level of political knowledge and involvement, along with little or no experience advocating for clients, CHAs are less likely to mobilize and mentor others.

General perceptions of the FHS teams

Nine questions explored CHAs’ perceptions of the FHS teams they worked with, including the teams’ credibility in the community. Only 13 CHAs commented on low credibility (of a small minority of teams). Their reasons included

(i) inattention to the FHS’ primary focus to help the community,
(ii) misuse of the FHS for personal political goals,
(iii) disappointment among community members, who had high expectations and realized that CHAs had limited resources to respond to their needs and
(iv) cutting back on services and benefits provided to certain clients, such as discontinuation of auxiliary nurses’ home visits to change wound dressings.

Although they saw FHS teams’ general credibility as ‘very good’, some CHAs recommended improvements:

(i) nurses and physicians should join them on home/field visits,
(ii) the local public health authority should provide better support to nurses,
(iii) the other team members should give more respect to CHAs and
(iv) teams should provide CHAs with more opportunities for continuing education.

CHAs also recommended that other FHS team members’ contribution to the FHS’ credibility be assessed. Only one CHA considered her FHS team’s credibility to be excellent, although she suggested that physicians ‘should welcome the community with more attention and humanity’ [sic].

According to CHAs, FHS teams’ efficacy in resolving problems brought from the community depended on finding solutions with managers at different levels. Nurses were charged with managing the health teams and administration, leaving them inadequate time to provide the leadership they were capable of. CHAs criticized the delegation of administrative or ancillary tasks to them, which sometimes gave an illusion of their integration within FHS teams.

A major issue raised about CHAs’ integration within FHS teams was physicians’ attitudes and minimal opportunities to communicate directly with them. Some CHAs argued that physicians overvalue themselves and avoid interaction: ‘… [in] neglecting the CHAs, physicians are also equally neglecting the community problems’. The CHAs’ and physicians’ scopes of practice seemed to work at cross-purposes at times, as expressed by three CHAs:

… but when the client arrives in his office, the physician spoils our work.

… we’re always blocked because they always have reasons, and we can not discuss issues with them.

… the teamwork only exists when we go to the home visits.

Similar concerns were expressed about work with nurses and CHAs’ general working conditions:

Physicians and nurses do not go out of the community centre, since there is a lack of people to work; even the agents are designated to work on internal tasks. We, the agents, work under much pressure, under threats, and we can’t take any more. Many of us have health problems, emotional stress and lack motivation, because nobody listens to us. When we attempt to say something, we are repressed and threatened.
Justification of abilities and actions

CHAs also disclosed varied opinions about their abilities as educators, help providers and autonomous workers in the community. As educators, they lacked training in discrimination and consequently were unable to teach families how to address it. Few were able to facilitate group discussions or provide advice on preventing an array of health and social problems, and CHAs reported that there were few opportunities to develop these skills. Most had insufficient information about official guidelines for their practice in these areas.

Some CHAs reported being able to listen to families’ concerns, explore social problems and teach about sexually transmitted diseases and disease prevention. Interestingly, diabetes and hypertension (clinical priorities of the national FHS) were not among the 10 major areas in which they perceived that they needed more skill. Only 6% of CHAs felt that they needed more skill in diabetes and hypertension education.

As help providers, CHAs used informal dialog to teach their clients how to defend their rights as citizens. Some CHAs with auxiliary nurse education reported that their degrees helped sustain their autonomy. Others brought up the need to protect their professional image, to be respected and receive support from the FHS team. In their view, support should be more consistent and include more material resources for their work.

CHAs also explained how they facilitate client contact with physicians, trying to mitigate the inadequate consultation time available to physicians and clients’ resultant stress. CHAs took on this role despite physicians sometimes being unwilling to meet clients’ expectations about attention to their complaints and respect for their personal circumstances. CHAs saw physicians as less committed than they to patiently teaching clients; thus, CHAs reported having taken responsibility for most client education. Because they perceived that physicians lacked interest in clients’ social problems, CHAs shared that they rarely communicated these problems to physicians, believing that they might then ignore the cases.

Analysis and discussion

The FHS assumes that promoting autonomy benefits individuals and communities; they can use it to change the determinants of their own health [29]. Despite their belief in equality and reciprocity, CHAs felt frustrated in trying to promote autonomy and protect their clients in an environment of poverty, economic and social marginalization [30, 31].

All of the evaluators and CHAs shared the view that health is intertwined with social inequity and abrogation of human rights. They see these issues as serious problems, not normative. CHAs encounter disempowerment and hopelessness every day. They become catalysts to mobilize people, inspire hope and design avenues for action. In working to enforce the human rights of their clients and communities, CHAs may provoke changes beyond the role they envisioned for themselves and move communities from fatalism toward empowerment.

As the CHAP is new, not all the necessary protocols have been developed. The FHS began CHAP with the goal of public health and focused on medical priorities. Now that the program is established, it is time to advance protocols for community engagement, improve team communication and design a mechanism for reporting suspected and actual cases of human rights violation. Social problems overwhelm FHS team members when, as HPs, they become aware of their limited ability to deal with them. The extreme living conditions, poverty, intrafamilial violence, alcoholism and illicit drugs that plague the community often render CHAs powerless to act [31]. Recent evidence shows that some HPs assume that people’s personal and social habits and cultural contexts are major causes of their difficult living conditions. These views have often led professionals to deny people’s right to adequate health care [31]. Numb to the consequences of social vulnerability, they, in effect, treat it as normative. This was evident in the low number of prompt interventions in child-abuse cases. HPs were less likely to notify authorities of this abuse, despite their legal duty to do so. Inadequate professional
education about child abuse [32] may also account for the slow response reported by CHAs.

When asked about the underlying factors impinging on their effectiveness, CHAs highlighted communication. Communication gaps within the municipal bureaucracy, and between it and communities, have likely contributed to a culture of non-participation [33, 34] and thus explain CHAs’ disinterest in attending MHC meetings. Clashes between physicians, CHAs and community members may have occurred, induced by the rigidity often inherent in physicians’ relationships with other HPs [35]. As the main link between clients and the FHS team, CHAs bring local knowledge about their clients’ lives, values and beliefs to the team. Without this knowledge, physicians and other FHS team members cannot provide integrated whole-person care [36].

Male physicians and female CHAs (with much lower social status and less education) are overrepresented on FHS teams. This led us to interpret their communication clashes as based on class difference and ingrained social chasms. As in hospitals, the literature reveals in the history of HPs’ socialization differences based on gender, power, autonomy, social status and educational achievement. These all influence the division of work, conflict management and hierarchical decision making [37–42]. These differences provide some understanding of the difficulties to be expected in integrating CHAs and increasing their effectiveness. Despite the many attributes that CHAs bring to FHS teams (good communication skills, high capacity to establish social intimacy, strong interpersonal skills, knowledge of the community, trust and commitment to their interprofessional teams and innovative, creative approaches to problem solving and practice [39]), integration into FHS teams remains an elusive goal.

In our evaluation, CHAs were barely aware of their prescribed leadership role as community mobilizers and promoters of equal access to health care [43]. They struggled, instead, to replace old practices and attitudes inherent in the biomedical model with others more compatible with the social reality they encountered. As a result, they became skilled in harmonizing scientific and popular health knowledge and responding to the associated need for norms for their work process (M. S. Zanchetta, L. M. C. Leite and M. Perreault, submitted).

Nowadays in Brazil, there is acknowledgment that CHAs have developed a social definition of health, while some members of FHS teams, operating with biomedical definitions, still focus on diseases. Sensing the health-related desires of the communities they serve, CHAs view health as a collective goal and project. As frontline health workers, their perspective and experience should change the thinking of Brazil’s scholars and practitioners of collective health. Indeed, CHAs disclosed how novel practices for educating vulnerable people about health issues can be, at once, threatening, challenging and rewarding despite the barriers they faced.

### Implications for practice

Municipal health authorities used the final evaluation report to persuasively demonstrate CHAP’s effectiveness and advocate continuation of FHS and CHAP in Aracatuba. The report was announced on a local television program and presented with a petition to the City Council. Based on the report, the 2007 municipal health budget was increased by 14%.

The CHA survey, about their work with vulnerable people who likely lack complete understanding of their rights and responsibilities as health consumers and have fuzzy concepts of FHS services [44], indicates the need for continuing education within interdisciplinary FHS teams. This will promote further integration and greater integrity in their functioning [45]. CHAs should receive further training on how to

- (i) promote and defend human rights,
- (ii) identify and confront discrimination,
- (iii) report and act on family violence in all its forms,
- (iv) identify and report abuse in families, especially of children,
(v) take action to alleviate risks and protect vulnerable people in impoverished environments and (vi) work to eliminate effects of the environment on health and sustainable development [46].

Team members other than CHAs need to address these issues appropriately in continuing education programs.

Pertinent structural changes are required to convert traditional, hierarchical decision making into team decision making and power sharing. These changes will improve the quality of and integrate interprofessional relationships and will enhance team members’ working conditions [35, 47–50] and community health outcomes. To become ‘a main strategy for social inclusion’, FHS teams need to expand CHAs’ social and health mandates, integrate teamwork and enhance communications with the populations they serve.

Our results may be relevant to any country where social exclusion occurs. Brazilian CHAs’ expertise could be transferred to other countries without PHC infrastructure. For all countries implementing local PHC programs with community workers, our results send a clear message that physicians and nurses should respect and support these frontline workers, who can reconnect HPs with marginalized populations.

However, the degree to which our findings can be applied outside the study settings is questionable at this stage. Their transferability may be restrained by structural features that limited our literature review (see Literature review: the community health agent program and CHAs’ roles). We cannot even suggest that our findings be applied in other Brazilian cities or towns, due to differences in health and social issues as well as the high education level of CHAs in Aracatuba. For these reasons, we are currently studying CHAs in other Brazilian settings: a large city, a small town, a village and a rural area. We want to learn how these CHAs are faring, what issues they are facing and how they contribute to FHS goals.

**Conclusion**

Our evaluation revealed barriers to CHAs’ effectiveness: professional powerlessness, communication gaps, fragmented teamwork and imbalance between client needs and extreme demands of the FHS bureaucracy. CHAs saw these barriers as preventing FHS teams’ timely response to many community expectations. Most of the barriers are organizational and structural. They could be removed with targeted training and effort and prevented from undermining the credibility of FHS teams and their health promotion/education efforts.

In Brazilian community health, one of the main groups of social actors is the CHAs. We found that they, despite being young and highly literate, have not used public policy and decision-making forums to advocate their clients’ rights to health care and social assistance. To do so, CHAs need more knowledge about how political, financial and environmental factors influence community health and CHAs’ effectiveness. For this reason, we asked that the final evaluation report be broadly distributed to foster public debate about the findings. We hope that this debate will lead to an increase in CHAs’ individual and social potential within this vital sector, community health.

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**References**

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