Support Behind the Scenes
Attitudes and Practice of Pediatricians and Nurses With Grandparents of Sick Children

Liora Findler, PhD

A total of 93 nurses and 52 pediatricians completed a quantitative and qualitative questionnaire tapping their perceptions of the functional aspects of grandparents' support to parents, the benefits and costs of this support, and their professional interactions with grandparents during the child's sickness. Results show that although healthcare professionals acknowledge the significant and stable role that grandparents can play, they rarely translate this into actual practice. Also, despite their emphasis on the importance of emotional support, they believed the actual support provided by the grandparents to be mainly instrumental, followed by emotional and financial support, and information and advice. The findings present a challenge to professionals and policy makers to adopt an approach of family-centered care that includes the grandparents, an important family resource that has been largely ignored. Key words: grandparents, pediatricians and nurses, sick children

There is no question that a child's sickness can be a major source of stress and anxiety for the whole family.1 and that the way in which the family deals with this stress can strongly impact the child's own coping and adjustment.2 As a result of this understanding, professional awareness has shifted dramatically, moving away from an exclusive focus on ailing children themselves to family-centered care, which seeks to provide family members with resources that will help them cope with the stress and the emotional and interpersonal issues that arise as a result of the child's illness.3

Within the sources of support in general, research tends to overlook the unique contribution of grandparents. Virtually, all references to the role of grandparents in families of children requiring special care emphasize their readiness to help and the unique strength of their commitment to the nuclear family.4-9 In a survey of the literature on grandparents of children with disabilities, Seligman9 showed they are likely to provide both emotional and instrumental support, the former allowing the parents to express their intense frustrations and disappointment, and the latter offering respite from the daily burdens. The findings of subsequent empirical studies conducted in Israel also indicated that grandparents' support contributed to the mother's psychologic well-being and perceived adjustment,10 and that among mothers of children with and without disabilities, grandparents were ranked as a more important source of support than friends, neighbors, and other family members, to say nothing of professionals.5 Seligman9 holds that for a thorough understanding of childhood illness and family adjustment, intergenerational relationships must be considered. To conceptualize the family apart from its ancestral past, he contends, is to ignore integral parts of its present life. In other
words, family dynamics within the nuclear family may be affected by the attitudes and actions of extended family members, such as the grandparents.

Grandparents’ impact on child outcomes is not always positive, however. Parents’ concerns include the possibility that grandparents will interfere in child rearing, criticize them, place blame on them, ignore their rules, or spoil the child. Moreover, the child’s illness may be a difficult time for the grandparents themselves. When asked to report how their grandchild’s sickness affected their own lives, grandparents noted that it prevented them from concentrating on their work and caused them to spend as much time as possible at the child’s bed or with the family. Only when doctors and nurses shared information with them and involved them in the child’s condition did they feel they had a better understanding of the situation and were therefore more able to cope with their grandchild’s illness and support the parents.

Although medical personnel today are generally aware that when a child is sick, the whole family is affected and requires support and care, little is known about professionals’ perception of the role of grandparents. Even less is known about the attitudes and practice of pediatricians and nurses in particular. To the best of our knowledge, the scant research conducted to date relates to social workers and teachers, who were found to acknowledge the unique role of grandparents in families of children with disabilities, but rarely to involve them in their professional activities. In addition, most studies have considered the families of children with disabilities or chronic illnesses, rather than those coping with acute illness or short-term hospitalization. Finally, while positive intergenerational relationships have been found to contribute to the well-being of a family with a child in need of special care, the question of the negative consequences or costs of such support has never been examined.

The current study therefore explored the perceptions and practice of Israeli pediatricians and nurses in respect to the role of grandparents in families of sick children. The following issues were investigated:

1. the type of support pediatricians and nurses believe parents need from grandparents, the type of support they believe grandparents actually provide, and their assessment of the contribution of this support to parents’ adjustment;
2. pediatricians’ and nurses’ assessments of the benefits and costs of grandparents’ support, as gleaned from parents; and
3. the actual practice of the pediatricians and nurses in respect to interactions with grandparents during child’s sickness.

METHODS

Participants

The sample consisted of 93 nurses and 52 pediatricians working with children in various medical centers in Israel. Among them, 2 nurses were men (2.2%), and the other 91 were women (97.8%). Of the pediatricians, 16 were men (39%) and 36 (60.9%) were women. Fifty-five of the nurses had a BA degree (60.2%), 8 had an MA (8.6%), and the rest (30) had a nonacademic diploma (32.3%); all the pediatricians were MDs. Years of experience in the profession ranged from 1 to 37 for nurses and 1 to 33 for pediatricians. Of the nurses, 17% had been working for 1 to 5 years, 30.7% for 6 to 15 years, and the remaining 52.3% for 16 to 36 years. Of the pediatricians, 13.5% had been in the profession for 1 to 5 years, 30.7% for 6 to 15 years, and the remaining 52.3% for 16 to 36 years.

Instruments

A 5-part self-administered questionnaire containing 22 closed questions and 3 semiopen questions was modified and adapted from a previous instrument that examined social workers’ perceptions and practice regarding grandparents. In addition, the first part of the questionnaire consisted of 6 questions regarding the respondent’s demographic and professional background.
The second part, containing 10 questions, was designed to obtain a picture of the participant’s views of grandparents' support. The questions were divided into 3 subsections. The first subsection (1 question) presented 4 types of support—emotional, instrumental, financial, and information and advice—and asked the participants to rank them in terms of importance from 1 (most needed) to 4 (least needed). In the second section (4 questions), participants were asked to assess the amount of support of each type they believe grandparents actually provide the family on a scale ranging from 1 (none at all) to 5 (very much). In the third subsection (5 questions), participants rated grandparents’ contribution to parent’s emotional, marital, parental, social, and occupational adjustment, each on a 5-point scale ranging from 1 (none at all) to 5 (considerable).

The third part of the questionnaire consisted of 6 questions tapping the respondent’s attitudes to grandparents' involvement in professional activities. The first question asked whether such involvement is necessary, with answers indicated on a 3-point scale (1 = always, 2 = only under certain circumstances, 3 = never). The second asked whether the nurse or doctor was interested in receiving training in professional interactions with grandparents (yes or no). In the third and fourth questions, the participants were asked to indicate how often they actually met with maternal and paternal grandparents on a 5-point scale ranging from 1 (never) to 5 (always). Questions 5 and 6 asked who usually initiated the meetings with grandparents. Six options were offered: 1 (nurse/pediatrician), 2 (mother), 3 (father), 4 (grandparent), 5 (another professional), or 6 (other).

The final items consisted of 3 semiopen questions, the first 2 asking the respondents to name the main benefits and costs, problems, or both resulting from the involvement of grandparents during the child’s sickness, and the third asking about professional interactions with grandparents during this period. The respondents were given 4 lines, numbered 1 to 4, for their replies so that each could list up to 4 issues or interactions. The responses were subjected to content analysis conducted by 2 independent researchers, each working alone. On the basis of their analyses, the authors formulated categories for each of these questions. The responses were then classified into the categories by 2 additional independent raters. Interrater agreement ranged from 75% to 85%. Any difference in opinions was discussed until agreement was achieved.

**Procedure**

Following the consent of directors of medical centers, 250 questionnaires were sent to nurses and pediatricians. They were accompanied by a cover letter explaining the purpose of the study, assuring anonymity, and asking that the questionnaire be completed and returned in the enclosed stamped, self-addressed envelope. About a month later, a follow-up letter was sent again asking for the professionals' cooperation. Completed questionnaires were received from 93 nurses and 53 pediatricians.

**RESULTS**

**Perceptions of the role of grandparents as support providers to families of sick children**

**Type of support needed**

A 2 × 4 MANOVA (group × type of support), with repeated measures for types of support revealed significant difference between types of support, $F_{3,140} = 31.49, P < 0.001, \eta^2 = 0.40$, but no differences were found between nurses and doctors, $F_{3,140} = 0.33, P > 0.05$, and no significant interaction was found between group × type of support, $F_{1,142} = 2.44, P > 0.05$. Simple main effects were conducted to examine the differences between types of support. The results are presented in Table 1.

As can be seen from Table 1, both nurses and doctors ranked the need for emotional support first, followed in order by instrumental support, financial support, and
Table 1. Rank order of parents’ needs as viewed by nurses ($n = 87$) and pediatricians ($N = 50$)

<table>
<thead>
<tr>
<th></th>
<th>Nurses</th>
<th></th>
<th>Doctors</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$F$</td>
<td></td>
</tr>
<tr>
<td>Emotional support</td>
<td>1.93</td>
<td>1.09</td>
<td>1.80</td>
<td>.93</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Instrumental support</td>
<td>2.13</td>
<td>0.89</td>
<td>2.10</td>
<td>1.05</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Financial support</td>
<td>2.91</td>
<td>1.05</td>
<td>3.08</td>
<td>0.10</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Information and advice</td>
<td>3.06</td>
<td>1.02</td>
<td>2.84</td>
<td>1.09</td>
<td>1.38</td>
<td></td>
</tr>
</tbody>
</table>

Information and advice. Pair comparison analysis revealed significant differences between emotional and instrumental support on the one hand, and financial support and information and advice on the other.

**Type of support provided**

A 1-way MANOVA revealed no significant differences between the 2 groups regarding the type of support actually provided by grandparents and between the 2 professions, $F_{4,103} = 0.52$, $P > 0.05$. The results appear in Table 2.

Table 2. Means and standard deviations of the support provided to parents by grandparents, as perceived by nurses and pediatricians

<table>
<thead>
<tr>
<th></th>
<th>Nurses ($N = 66$)</th>
<th></th>
<th>Doctors ($N = 37$)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$F$</td>
<td></td>
</tr>
<tr>
<td>Instrumental support</td>
<td>4.21</td>
<td>.62</td>
<td>4.24</td>
<td>.76</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Emotional support</td>
<td>4.21</td>
<td>0.62</td>
<td>4.24</td>
<td>0.76</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>Financial support</td>
<td>3.30</td>
<td>0.89</td>
<td>3.19</td>
<td>0.78</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>Information and advice</td>
<td>3.02</td>
<td>0.77</td>
<td>3.05</td>
<td>0.81</td>
<td>0.06</td>
<td></td>
</tr>
</tbody>
</table>

As Table 2 indicates, both doctors and nurses believed that grandparents provided mostly instrumental support (babysitting, transportation, etc), followed in order by emotional support (listening, encouragement, etc), financial support, and information and advice.

**Grandparents’ contribution to parents’ adjustment**

A 1-way ANOVA revealed no significant differences between pediatricians and nurses regarding the contribution of grandparents’ involvement to parents’ adjustment $F_{5,126} = 1.92$, $P > 0.05$. The results are presented in Table 3.

Table 3 shows that both groups ranked grandparents’ involvement as contributing mostly to mothers’ emotional adjustment, followed in order by parental, occupational, social, and marital adjustment.

**Professional interactions with grandparents**

**Actual interactions**

With regard to maternal grandparents, 51.7% ($n = 47$) of the nurses and 31.4%

Table 3. Means and standard deviations of the contribution of grandparents’ involvement to parents’ adjustment, as perceived by nurses and pediatricians

<table>
<thead>
<tr>
<th></th>
<th>Nurses ($N = 82$)</th>
<th></th>
<th>Doctors ($N = 44$)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td>$F$</td>
<td></td>
</tr>
<tr>
<td>Emotional adjustment</td>
<td>3.87</td>
<td>0.77</td>
<td>3.70</td>
<td>0.79</td>
<td>1.24</td>
<td></td>
</tr>
<tr>
<td>Parental adjustment</td>
<td>3.61</td>
<td>0.81</td>
<td>3.41</td>
<td>0.92</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>Occupational adjustment</td>
<td>3.06</td>
<td>0.79</td>
<td>2.70</td>
<td>0.82</td>
<td>2.58</td>
<td></td>
</tr>
<tr>
<td>Social adjustment</td>
<td>3.34</td>
<td>0.69</td>
<td>3.30</td>
<td>0.79</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Marital adjustment</td>
<td>3.52</td>
<td>0.77</td>
<td>3.27</td>
<td>0.95</td>
<td>6.11*</td>
<td></td>
</tr>
</tbody>
</table>

$p < .05$
Initiation of interactions

According to the reports of nurses and pediatricians, respectively, 5.6% \( (n = 5) \) and 2.0% \( (n = 1) \) of the interactions with maternal grandparents were initiated by the respondent, 21.3% \( (n = 19) \) and 32% \( (n = 16) \) by the mother, 48.3% \( (n = 43) \) and 46% \( (n = 23) \) by grandparents, 1.1% \( (n = 1) \) and 2% \( (n = 2) \) by another professional (e.g., a social worker), and 23.6% \( (n = 21) \) and 18% \( (n = 9) \) by other sources.

In the case of paternal grandparents, nurses and pediatricians, respectively, reported that 5.7% \( (n = 5) \) and 0% of the meetings were initiated by the respondent, 9.1% \( (n = 8) \) and 10.6% \( (n = 5) \) by the mothers, 10.2% \( (n = 9) \) and 10.6% \( (n = 5) \) by the fathers, 46.6% \( (n = 41) \) and 48.9% \( (n = 23) \) by the grandparents, 1.1% \( (n = 1) \) and 2.1% \( (n = 1) \) by other professionals, and 27.3% \( (n = 24) \) and 23.4% \( (n = 11) \) by other sources.

Interest in specialized training

Most of the participants (76.3% of the nurses and 94.2% of the pediatricians) indicated that they were not interested in receiving any special training (such as courses or workshops) on the subject of professional interactions with grandparents.

Background data

Further analyses indicated that none of the above findings were affected by the professional’s age, level of education, length of experience, or affiliation to a specific pediatric ward.

Benefits and costs of grandparents’ involvement

The semiopen questions on the benefits and costs of grandparents’ involvement during the child’s sickness were answered by 95% of the respondents, producing a total of 258 responses from nurses (141 for benefits and 117 for costs) and 148 responses from pediatricians (83 and 65, respectively). Content analysis of the responses revealed the 4 key issues for benefits and 6 for costs reported in the Method section above. In regard to benefits, 58% \( (n = 82) \) of the comments from nurses and 43% \( (n = 36) \) from pediatricians referred to grandparents’ sharing the extended instrumental burden (e.g., financial help, staying with the child during his sickness, transportation); 35% \( (n = 49) \) of the nurses and 31.5% \( (n = 26) \) of the pediatricians related to sharing the extended emotional burden (e.g., listening, encouraging, sharing anxieties); 3.5% \( (n = 5) \) and 2.5% \( (n = 2) \), respectively, to intergenerational solidarity and the grandparents’ sense of commitment; and 3.5% \( (n = 5) \) and 23% \( (n = 19) \), respectively, to additional opinions, advice, and experience.

Regarding the costs of grandparents’ involvement, 56.5% \( (n = 66) \) of the nurses and 52.3% \( (n = 34) \) of the pediatricians mentioned the tension and pressure they put on parents. The comments of 23% \( (n = 27) \) and 24.5% \( (n = 16) \) of the pediatricians, nurses and doctors, respectively, related to difficulties in intergenerational relationships (e.g., grandparents do not discipline the child, spoil the child, display undesirable attitudes toward the child, etc); 8.5% \( (n = 10) \) and 9.2% \( (n = 6) \), respectively, to the old-fashioned ideas of grandparents; 2.5% \( (n = 3) \) and 9.2% \( (n = 6) \), respectively, to the grandparents’ overinvolvement and interference in professional routine; 7.7% \( (n = 9) \) and 3% \( (n = 2) \), respectively, to inappropriate emotional reactions; and 1.8% \( (n = 2) \) and 1.5% \( (n = 1) \), respectively, to
difficulties in sharing information with grandparents.

**DISCUSSION**

The nurses and pediatricians in our research depicted grandparents as a significant component of the family’s support network, with almost no differences between the 2 groups regarding their perception of grandparents’ role in families with sick children. Both groups tended to believe that grandparents can make a significant contribution in terms of instrumental support but may become a burden when there are conflicts and tensions between the generations. However, on the whole, these attitudes were not found to be translated into professional practice.

The findings reveal the professionals’ perceptions of the functional dimension of the social support provided by grandparents, that is, the type of support needed and received by each of the parents. Both doctors and nurses viewed parents as most in need of emotional support, followed in order by instrumental and financial support, and information and advice. This is in line with previous research. In a survey of the literature on grandparents of children with disabilities, Seligman stated that although they may provide instrumental support, such as running errands, helping with the child’s transportation, and providing respite, the most important support they can extend is emotional support. The same view is shared by other studies as well. Nevertheless, despite their emphasis on the importance of emotional support, the professionals in our study believed the actual support provided by the grandparents of sick children to be mainly instrumental, followed in order by emotional and financial support, and information and advice. A similar perception of grandparents’ support to families of children with disabilities was previously reported by studies of social workers and educators. Thus, although all the 3 professional groups share the belief that parents need more emotional than instrumental support, they indicate that they receive more instrumental than emotional support. Interestingly, this view is inconsistent with the reports of mothers of children both with and without disabilities, who claim to get more emotional than instrumental support from all 4 grandparents. This discrepancy might be explained by the fact that it is easier for an outsider to identify instrumental support than emotional support, which is usually provided in more intimate circumstances.

Another attitude revealed by the findings is that both pediatricians and nurses believe that grandparents’ involvement contributes primarily to the emotional and parental adjustment of the parents, and only to a lesser degree to their marital, social, and occupational adjustment. This is consistent both with the respondents’ overall emphasis on the parents’ emotional needs, and with reports of mothers of children with and without disabilities that grandparents contribute mainly to their emotional well-being and to reducing their distress.

The themes that emerged from the participants’ responses to the semiopen question on the benefits of grandparents’ involvement during child’s sickness related to both instrumental and emotional support. References to instrumental support included babysitting, financial assistance, transportation, or help with siblings, and appeared in statements, such as “They try whatever they can to help out with the extended burden.” Emotional support was described in terms of listening, reducing anxiety, caring, and encouragement. All participants found grandparents to be more sensitive and attentive to parents’ feelings and wishes than other members of their social network, stating, for example, “We can see the unique love and sharing of family experiences, whether happy or sad.” Less frequently mentioned was the theme of intergenerational solidarity and a sense of commitment, for example, “creating a kind of a coalition vis-à-vis professionals.” The benefit of grandparents’ participation in decision making and information gathering in terms of treatment, rights, and available services was ranked last by the professionals.
Although fewer comments were offered regarding the costs of grandparents' involvement, they covered a wide range of themes. Nurses and pediatricians most frequently referred to tension and the pressure put on parents by the grandparents (expressing anxiety, distrust in parents' abilities, etc), for example, "Parents often suffer from grandparents' criticism, differences in opinions regarding child rearing, or disappointment due to lack of assistance." In addition, they mentioned intergenerational difficulties, grandparents' outdated ideas (eg, "the grandparents are old fashioned or rigid"), overinvolvement and interference in daily routine (eg, "they often misunderstand or disobey staff's instructions"), inappropriate emotional reactions (eg, "they create unnecessary panic and anxiety"), and finally, the parents' reluctance to share medical information with the grandparents. Most of the subjects raised here are in line with the scant literature describing parents' views on grandparents' support focusing on families of children with disabilities. These previous studies suggest that grandparents can be a source of stress when they blame the parents, criticize their parenting skills, misunderstand the child's special needs, or express no empathy for the turmoil accompanying the presence of a child with a disability.9,15

Yet despite these indications in the literature, and the fact that when the healthcare professionals in our study were specifically asked to describe the cost of grandparents' support they offered numerous comments, little research attention has been paid to the role of grandparents in families of children requiring special care, whether permanent or temporary. Even less attention has been focused on the negative consequences. From our findings, it would appear that these issues are worthy of further investigation.

Although in most dimensions, the nurses and doctors in our study indicated an awareness of the importance of the role of grandparents, this perception does not necessarily translate into practice. Whereas the majority of pediatricians, and an even larger proportion of nurses, reported that they occasionally or often met with maternal and paternal grandparents during the child's sickness, in most cases, it was not they themselves who initiated these interactions, but rather the grandparents, parents, or other professionals. Furthermore, most of the nurses, and even a greater number of pediatricians, stated that they had no interest in receiving special training aimed at improving their skills and knowledge concerning grandparents.

The healthcare professionals' practice, or rather lack of practice, in respect to grandparents may stem from a variety of reasons. One explanation might be that despite their recognition of the importance of the grandparents' support for the parents, they do not see them as potential partners, either legally or morally, in their own professional interventions with children and their nuclear families. Alternatively, they might believe that it is not their place to intervene in relations between children, parents, and grandparents. Similarly, they might be concerned that parents would object to their involving the grandparents or that the grandparents or both, whether for reasons of health or disposition, would not be capable of such involvement. Along somewhat different lines, the findings may stem from the nature of doctors' and nurses' training, which focuses on their direct relations with children and parents and does not include, and certainly does not encourage, the participation of "outsiders"—whether grandparents or anyone else—in their activities. Finally, the very possibility of interacting with the extended family might never have occurred to these professionals. While such interactions are more common in the United States,16 they are not accepted practice in Israel.

Several limitations of this study must be noted. First, it did not explore to what extent healthcare professionals involve, or are willing to involve, third parties other than grandparents during the child's sickness (eg, aunts, siblings). Second, we cannot be sure that the low level of interest is specific to
training about grandparents or whether it also extends to other issues. Finally, additional studies conducted elsewhere in the world would be required to ascertain whether the results obtained from Israel are generalizable to other countries as well.

Notwithstanding these limitations, this study offers initial findings in an area which has not previously received attention. It might best be viewed as the first step toward a more thorough and differentiated exploration of an important subject.

Moreover, the findings have implications for pediatricians’ and nurses’ practice. In line with the increasing awareness of the importance of family-centered care, the results of our study of families with sick children, like those of previous investigations focusing on families of children with disabilities, demonstrate the value of involving grandparents in the child’s care. We would recommend that resources be allocated to increase healthcare professionals’ awareness of the role of grandparents in providing assistance and support to families of sick children. Both pediatricians and nurses should be made aware of the many possibilities for involving grandparents and be trained in the skills and strategies for doing so. These subjects could be treated either distinctly or in the context of the broader issues of the extended family and intergenerational relations.

Furthermore, it is important for practitioners to recognize the effect of the child’s sickness on the grandparents themselves, and the implications for the parents and the child. Professionals can be called upon to assist the whole family to cope with the overwhelming emotional and practical burden, among other things by strengthening the grandparents, keeping them as informed as possible, and helping parents deal with the conflicts and negative aspects of grandparents’ support. To address both the positive and negative sides of the issue, multidisciplinary teams of nurses, doctors, and social workers can design intervention strategies, which will enhance communication channels and enable parents and grandparents to benefit from mutual support during the child’s sickness. A few such professional programs are already available to grandparents in medical settings, both in Israel and elsewhere, and should be expanded, and healthcare professionals should be made more aware of them.

Increased awareness of the role of grandparents and training in interactions with them; however, does not necessarily mean that in every case professional should include grandparents in their activities. Rather, it would make available a potentially valuable option, which many pediatricians and nurses, at least in Israel, do not seem to have ever seriously considered.

REFERENCES


---

**Call for Papers**

**47th International Making Cities Livable Conference on True Urbanism: Cities for Health & Well-Being**

**Portland, OR, May 10–14, 2009**

Co-sponsored by The City of Portland & Portland Metro Planning Council

Proposals should be prepared for blind peer review. State title of paper, name of author, affiliation, full contact information on cover e-mail. Attach Word file with abstract (200–250 words)


An international conference for city officials, practitioners, and scholars in planning, urban design, health policy, transportation planning, architecture, landscape architecture, and social sciences from many parts of the world to share ideas and establish working relationships.

**PAPER TOPICS INCLUDE**

- Urban Design & planning for physical & social health
- Planning pedestrian & bike networks
- Active living & the walkable, bikeable city
- Psychological effects of the built environment
- Beautiful cities & well-being
- Land use principles for the healthy city
- Urban housing to integrate diversity
- Mixed-use urban fabric & neighborhood identity
- Urban villages/suburban towns
- Redesigning suburban malls as village/town centers
- Role of public places in fostering social life & civic engagement
- Teaching health & planning
- Regional planning for sustainability
- Health effects of sprawl
- Teenagers, social development, & the built environment
- Influence of social life on health
- Community festivals & social well-being
- What can we learn from Europe?