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WHAT ARE PARENTS' WORRIED ABOUT? HEALTH PROBLEMS AND HEALTH CONCERNS FOR CHILDREN

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Abstract

Patient-centered care requires pediatricians to address parents' health concerns, but their willingness to solicit parental concerns may be limited by uncertainty about which topics will be raised. We conducted surveys of parents to identify current health-related issues of concern.

Methods—Participants rated 30 items as health problems for children in their community (large, medium, small, or no problem) and volunteered concerns for their own children.

Results—1,119 parents completed the survey. Allergies (69%), lack of exercise (68%), asthma (65%), attention deficit hyperactivity disorder (65%), Internet safety (63%), obesity (59%), smoking (58%), and bullying (57%) were identified as important problems (large or medium), with variation among demographic subgroups. Concerns for their own children included healthy nutrition, obesity, and lack of exercise, healthy growth and development, safety and injury prevention, and mental health issues.

Conclusion—Parents' health concerns for children are varied and may differ from those routinely addressed during well-child care.

Keywords

Health needs assessment; practice-based research network; well-child care

INTRODUCTION

Parents regard their pediatrician as a trusted source of health information and rely on them to provide advice on raising children.^{1, 2} Health information and advice is often provided within the context of well child care, a cornerstone of pediatric care. Topics selected for discussion at a well-child visit are guided by the Bright Futures Guidelines for health supervision visits published by the American Academy of Pediatrics (AAP).³ The list of potential topics has lengthened over time and is described as “overwhelming” by community

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pediatricians.^{4,5} In addition to traditional topics like healthy growth and development and prevention of injuries, pediatricians are asked to address “new morbidities” such as obesity, behavior disorders, depression, adolescent risky behaviors, and violence.^{6,7} Gaps between what is recommended to be included in well-child care and what parents report is provided have been identified with over half of parents reporting one or more unmet need for guidance or education.⁸

Parents often have concerns about psychosocial issues but are unlikely to raise them during the office visit.^{2,9,10} Recognizing this, the Bright Futures Guidelines promote solicitation of parental concerns at every well-child visit to keep the visit patient-centered.^{3,11} This more tailored approach to well-child care is supported by pediatricians, although it creates a tension between addressing parents’ concerns and covering the recommended visit content.⁵ Implementation of this approach to care requires a change from the more traditional visit format that is still encouraged by the templates included in electronic medical records where the pediatrician determines the topics for discussion and asks most of the questions.¹⁰

Practitioners’ willingness to ask open-ended questions to solicit parental concerns as well as their ability to provide effective management may be limited by their uncertainty about which topics are likely to be raised by the parent, their concern they may not have the knowledge to adequately respond, and a paucity of research evidence to guide care.^{10,12,13} Knowledge of common parental concerns could guide implementation of patient-centered care. We conducted surveys of parents to identify current health-related issues of concern in our community. Our goal was to alert local pediatricians about common parental concerns so they could be prepared to address them.

METHODS

We developed and implemented a survey to assess parents’ health concerns for children and adolescents in their community and parents’ concerns for their own children. The study was approved by the Washington University Human Research Protection Office.

Survey Tools

The survey was developed by the authors, based in part on the University of Michigan C. S. Mott Children’s Hospital National Poll on Children’s Health (<http://www.med.umich.edu/mott/npch/about/index.htm>). This web-based survey measures national opinion and priorities regarding major healthcare issues and trends for U.S. children using a representative national sample of about 2,000 U.S. households.

We modified this 20-item instrument (with permission) to reflect local concerns, adding 10 items to the list of possible health problems nominated by local experts and community pediatricians after reviewing the original survey. These included allergies (including food allergies), diabetes, HIV/AIDS, lead poisoning, marijuana use, overuse of antibiotics, poverty, risks associated with immunization shots, sport- and play-related injuries, and swine flu. We also modified the wording of 8 items for clarity: environmental pollution, heavy drinking of alcohol, illegal drug use, lack of exercise, motor vehicle accidents, neighborhood safety (including assaults and homicides), obesity, sexually transmitted infections other than HIV/AIDs (Chlamydia, gonorrhea, etc.). Respondents used a 4-point categorical scale to indicate how much of a problem (large, medium, small, or not a problem) they felt each item on the 30-item list was for children and adolescents in their community. Items rated as a large or medium problem were considered an important problem.

In addition, parents identified the top three health concerns for their own children by age group (<2 years old, 2 to 5 years old, 6–11 years old, 12 to 17 years old) by responding to an open-ended question (e.g., What are the top three health concerns for your own children under 2 years old?). The final parent survey had a reading level of 6.3.

The survey also collected demographic information and was paper-based, self-administered, anonymous, and took about 10 minutes to complete.

Study Participants

Parents (or legal guardians) attending the office of a pediatrician in our practice-based research network (PBRN), Washington University Pediatric and Adolescent Ambulatory Research Consortium (WU PAARC) when a research assistant (RA) was present were eligible to participate in the study. Parents were approached by the RA in the waiting room and invited to participate. Parents were not approached if they were immediately called to see the physician, were preoccupied with an administrative task, or if the RA was busy with another parent. Unaccompanied minors and pregnant women with no children were ineligible as were parents who could not speak English or had previously completed the survey. Most parents finished the survey prior to seeing the physician. Of 31 participants who did not have enough time to complete the survey in the office, 13 returned the completed survey in the provided stamped, addressed envelope.

Statistical Analysis

Descriptive statistics are reported for respondents and for demographic subgroups, defined after comparing the distribution of responses. These groups included African American vs. all other races; Medicaid vs. work-related insurance; less than a bachelors degree vs. a bachelors degree or higher educational attainment; and family income < \$60,000/year vs. \$60,000/year. Meaningful differences in important problems between subgroups were defined as differences of at least 20%. Parents response to the open ended questions were coded by two of the authors (EL and JG). Potential categories were identified from review of the survey responses and the Bright Futures Guidelines. Nine discrete categories were identified and parents' responses were coded by consensus. The categories included: mental health (eg, self esteem, behavioral problems, bullying, depression, suicide); food/activity (eg, healthy nutrition, obesity, eating disorders, lack of exercise); environment (eg, environmental pollution, lead, food safety, poverty); risky behaviors (eg, alcohol, smoking, illicit drug use, STDs, teen pregnancy); safety (eg, accidents, car and pedestrian safety, sport-related injuries, neighborhood safety, internet safety); development (eg, normal growth and development, social health, healthy sexuality); parenting (eg, sleep problems, education); oral health (eg, thumb sucking, oral hygiene) and diseases (all diseases mentioned specifically eg, acute infectious diseases, allergies, asthma, ADHD). Summary statistics are presented as means and standard deviations or medians and ranges for continuous variables, and percentages for categorical variables. We used the Pearson Chi-square or Fisher's exact test to compare responses among subgroups. A probability of $p < 0.05$ (two-tailed) was used to establish statistical significance. All statistical analyses were done using SAS 9.2 (SAS Institute Inc., Cary N.C.)

RESULTS

Study Participants

In-office recruitment for the parent survey occurred in 12 practices (Figure 1). The RA was at each practice for a median of 3.9 days (range 3.5–4.5 days) from June 8, 2009 to September 4, 2009. Of 1,278 eligible parents, 1,119 (88%) completed the survey with a median of 93 surveys completed at each practice (range: 40 to 170). Respondents were from

throughout the St. Louis metropolitan area: 85% were the child's mother, 24% were African American, 60% had a college degree or higher, and 22% used Medicaid insurance for their child (Table 1). The non-completion rate for each item in the survey ranged from 2% to 6% (median 4%).

Health problems identified for children and adolescents in the community

Parents' assessment of the magnitude of 30 health problems for children and adolescents in the community where they lived is presented in Figure 2 and Appendix A. Items identified as important problems (those most frequently identified as a large or medium problem) were: allergies (69%), lack of exercise (68%), asthma (65%), attention deficit hyperactivity disorder (ADHD) (65%), internet safety (63%), obesity (59%), smoking and tobacco use (58%), and bullying (57%).

Demographic subgroups varied considerably in the frequency that an item was selected as an important problem (Figure 3). In the univariate analyses, there was > 20% difference between the following subgroup comparisons (all $p < 0.001$); African American parents were more likely than other parents to identify HIV, neighborhood safety, teen pregnancy, school violence, poverty, sexually transmitted infections (other than HIV), and lead poisoning; Parents earning < \$60,000/year were more likely than other parents to identify poverty, neighborhood safety, school violence, internet safety, and teen pregnancy; Parents using Medicaid insurance for their child were more likely than other parents to identify teen pregnancy, poverty, HIV/AIDS, and neighborhood safety.

Health concerns for their own children

Parents' health concerns for their own children varied considerably by age group (Table 2). Across all age groups many parents had concerns for their child's mental health, healthy nutrition, healthy growth and development, and safety. Many parents were also concerned about specific diseases, most often allergies, asthma, acute infectious diseases and ADHD. Concerns about mental health increased with the child's age. Parents of 2 to 5 year olds were concerned about behavior problems (2.9%), parents of 6 to 11 year olds concerned about bullying (10%), and parents of 12 to 17 year olds concerned about depression (10.7%). The frequency of parental concern about obesity and lack of exercise increased across the age groups, whereas more parents of young children were concerned about environmental pollution. Few parents identified Internet safety as a concern (4.6% of parents of 5 to 11 year olds, and 6.0% of 11 to 17 year olds), and few parents were concerned about risky behaviors in their adolescent children (13.7% illicit drug use, 11.8% alcohol use, 6% STDs, 4.9% teen pregnancy, 3.2% tobacco use).

DISCUSSION

We asked almost 1,200 parents from various demographic groups about their health concerns for children. We found considerable variation for the items parents identified as important health problems for children in their community and as concerns for their own children. These findings support the need for health care providers to ask each parent to identify their specific concerns in order to promote a more patient-centered approach to well child care.³ Although strongly recommended in the Bright Futures Guidelines, a recent study found clinicians did not ask open-ended questions to solicit parental concerns in almost 25% of well-child visits.¹⁴ Expanding the scope of the well child visit with a more patient-centered approach may improve the effectiveness and efficiency of these visits.^{14, 15}

Parents are more likely to follow advice from their pediatrician than advice from other sources.^{1, 16} In order to provide the most relevant and helpful advice, pediatricians must

both be aware of parents' concerns and be prepared to address them. Our findings suggest that pediatricians need to be prepared to adequately address psychosocial concerns that reflect recent social and environmental changes such as obesity, lack of physical exercise, depression, violence and Internet safety,¹⁷ problems identified as significant causes of morbidity by many parents in this study. Although they are common, psychosocial concerns are unlikely to be raised by the parent during an office visit,^{2, 9, 18} and are less likely than traditional topics to be raised by the pediatrician especially if time is short.^{10, 14, 17, 19} A parent questionnaire could be used to alert parents that their pediatrician can provide help with psychosocial issues, and to identify any issues that are a particular concern,³ but pediatricians may need additional education and an established referral process to feel comfortable dealing with behavioral, developmental or psychological issues.¹⁹

Our findings also suggest that parents may fail to identify significant health risks for their own children. Some items commonly identified as an important problem for children in the community were not reported as concerns for their own children. For example, there was a six-fold decrease in the frequency that parents identified Internet safety and lack of physical exercise as a concern for their children compared to being a concern for children in the community. A detailed enquiry by the pediatrician may be needed to ascertain if physical activity is adequate and Internet access is being monitored. Similarly, there was a three-fold decrease in the frequency that parents identified risky behaviors such as alcohol, tobacco and drug use and unsafe sexual activity as concerns for their own adolescent children compared with being a concern for adolescents in their community. Pediatricians could help parents to guide their teen to make healthy choices by raising these issues for discussion at an earlier age, but may need additional training to enhance their comfort and effectiveness for discussing these issues with parents and adolescent patients.²⁰⁻²²

Items identified as important problems for children in the community may represent unmet need and opportunities to improve care. The significant morbidity associated with asthma and allergies identified as important problems by parents in this study could be reduced by increased use of effective, safe treatments that are readily available.²³ Establishing a therapeutic partnership by inviting parents to share their specific concerns is a strategy supported by national guidelines and by community pediatricians⁵ and may increase treatment effectiveness. Meeting the needs of disadvantaged families may be more difficult for providers. Mothers from disadvantaged groups in this study identified neighborhood safety and violence at school as important problems for children in their community. Language barriers, low health literacy, and problems with provider-patient communication may make it difficult for these mothers to raise their concerns with the provider.²⁴ Providers too may be reluctant to raise these issues due to lack of training and time pressures.²⁵ Although pediatricians cannot alleviate these problems, they could enlist the help of community agencies to provide needed services and advocate for safe environments for their patients.^{7, 26}

Limitations

Limitations to our findings must be noted. While the practices used for the survey represented all socio-demographic groups in the St Louis area, the concerns identified in this survey may still be local. For example, the prevalence of asthma and allergy is high in the St. Louis area.²⁷ Findings may also have been influenced by the seasonality of the survey (the summer months). However, our survey could easily be replicated to identify local concerns.

CONCLUSION

Concerns and problems identified by parents may differ from those routinely addressed at well child visits. Health problems and concerns for children identified by parents are varied and are likely to change over time, influenced by social changes, the emergence of new health threats, and the media. Variations in parents' concerns support the need for the health care provider to ask the parent to identify their specific concerns during each visit. Identifying common parental concerns can inform the primary care provider about topics they need to be prepared to discuss at well child visits and identify issues that may need a more detailed enquiry. Common concerns may reflect unmet needs and help to guide development of targeted interventions and policies to improve health.

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ABBREVIATIONS

AAP	American Academy of Pediatrics
ADHD	Attention deficit hyperactivity disorder
AIDS	Acquired immune deficiency syndrome
HIV	Human immunodeficiency virus
NCRR	National Center for Research Resources
NIH	National Institutes of Health
PBRN	Practice based research network
RA	Research assistant
SD	Standard deviation
STD	Sexually Transmitted Disease
WU PAARC	Washington University Pediatric and Adolescent Ambulatory Research Consortium

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APPENDIX A

Parents' assessment of the magnitude of the problems caused by various health issues for children and adolescents in their community (n=1119).

	Important problem (large and medium)	Large problem	Medium problem	Small problem	Not a problem	N
Allergies (including food allergies)	69%	31%	38%	20%	11%	1100
Lack of exercise	68%	35%	33%	18%	14%	1091
Asthma	65%	31%	34%	21%	14%	1093
ADHD	65%	28%	36%	19%	17%	1086
Internet safety	63%	29%	34%	22%	15%	1081
Obesity	59%	28%	31%	23%	18%	1088
Smoking/tobacco use	58%	28%	30%	26%	17%	1087
Bullying	57%	26%	31%	25%	18%	1079
Illegal drug use	49%	21%	28%	27%	24%	1078
Motor vehicle accidents	48%	16%	32%	34%	18%	1070
Environmental pollution	47%	20%	27%	31%	22%	1080
Teen pregnancy	47%	21%	26%	30%	23%	1076
Marijuana use	47%	23%	24%	29%	24%	1067
Heavy drinking of alcohol	45%	17%	28%	28%	28%	1082
Child abuse and neglect	43%	19%	24%	29%	29%	1078
Depression	41%	15%	26%	33%	26%	1073
STDs other than HIV/ AIDs (Chlamydia, gonorrhea, etc.)	40%	19%	21%	30%	30%	1059
Autism	38%	13%	25%	35%	27%	1076
Poverty	36%	17%	19%	33%	32%	1060
Sport/play-related injuries	35%	8%	27%	44%	22%	1066
Diabetes	33%	12%	21%	37%	30%	1070
School violence	33%	12%	21%	38%	29%	1077
Neighborhood safety (including assaults and homicides)	32%	15%	17%	34%	34%	1085
Overuse of antibiotics	31%	10%	21%	33%	36%	1048
Eating disorders (like anorexia and bulimia)	28%	9%	19%	38%	35%	1065
Lead toxicity/poisoning	25%	9%	16%	35%	40%	1066
HIV/AIDS	25%	13%	12%	34%	42%	1063
Risks associated with immunization shots	21%	6%	15%	35%	44%	1069
Suicide	21%	7%	14%	39%	40%	1062
Swine flu	15%	5%	10%	35%	51%	1069

Percentages may not sum to 100% due to rounding.

ADHD, Attention deficit hyperactivity disorder; STD, sexually transmitted disease; HIV, Human immunodeficiency virus; AIDS, Acquired immune deficiency syndrome.

What's New

Parents' health concerns for children are varied and reflect some contemporary issues such as obesity, Internet safety, and bullying. Parents' concerns may differ from those of their pediatrician and issues routinely addressed in well child visits.

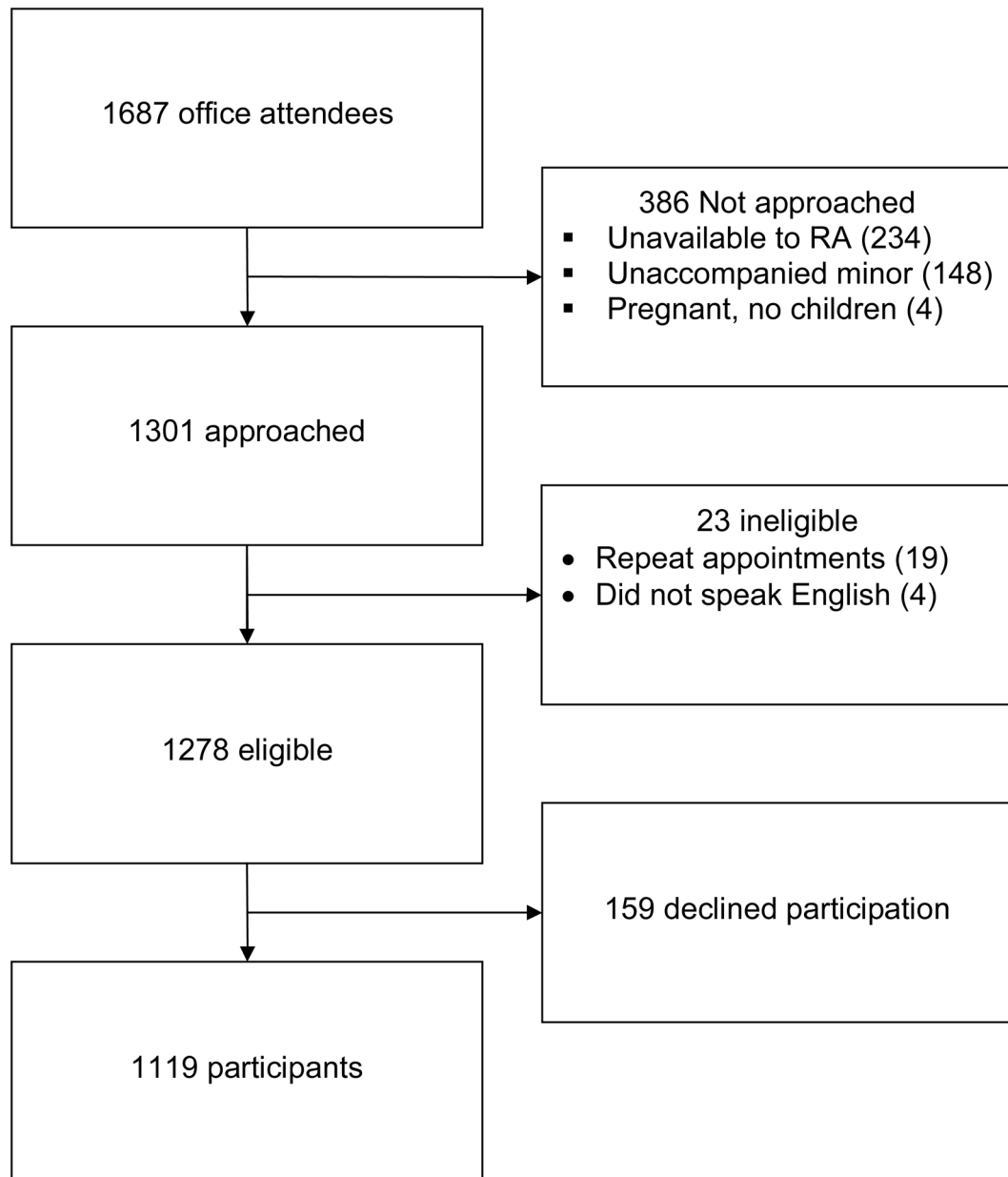


Figure 1.
Subject recruitment.

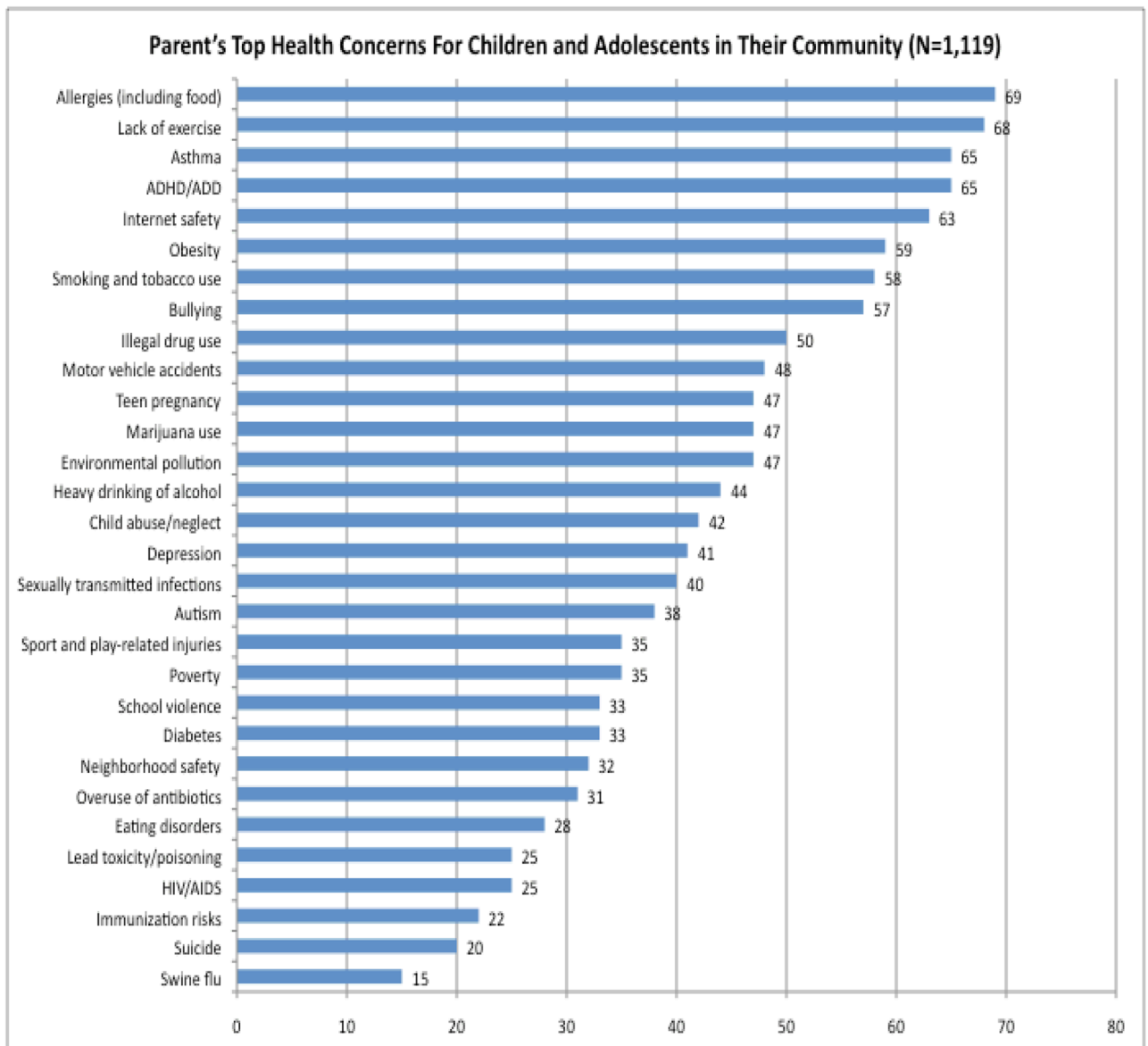


Figure 2.

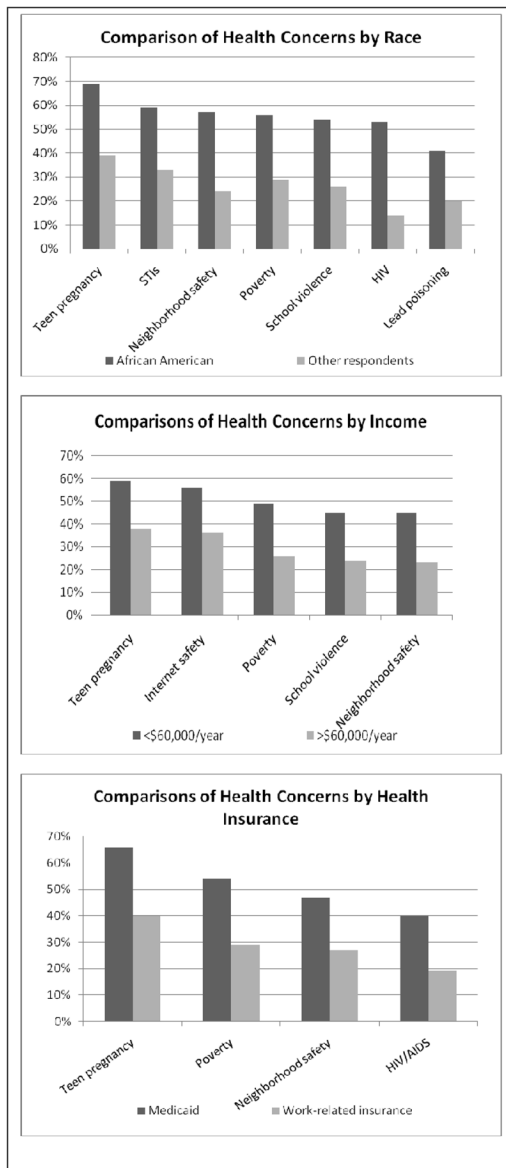


Figure 3. Comparison of important health concerns by sociodemographic factors

Table 1

Characteristics of the 1,119 study participants *

Characteristic	%
Female gender (n=1,077)	88%
Racial group (n=1,052)	
White	72%
Black	24%
Asian	2%
Other	2%
Hispanic (n=1,056)	2%
Educational level (n=1,074)	
Grades 1 through 8	0.4%
High school, no diploma	4%
High school graduate or GED	14%
College – no degree	20%
Associates degree or equivalent	10%
Bachelors degree	29%
Post graduate or professional degree	21%
Health insurance (n=1,056)	
Work-related insurance	72%
Medicaid	22%
Self-pay	4%
Other	2%
Two-parent family (n=1,074)	79%
Family income/year (n=996)	
< \$30,000	20%
\$30,000 – < \$60,000	21%
\$60,000 to < \$100,000	26%
\$100,000 or more	33%

* When data are missing, n is provided.

Percentages may not sum to 100% due to rounding

Table 2

Most frequently selected health concerns parents reported for their own children by age group.*

Parental Concerns	< 2 Years (n=452)	2 to 5 years (n=518)	6 to 11 years (n=589)	12 to 17 years (n=533)
Diseases	99.8%	86.7% acute	81.5%	42.8%
Most commonly named diseases (% all parents in agegroup)	Acute infectious diseases (23%)	Allergies (26%)	Allergies (22%)	Allergies (9%)
	Allergies (22%)	Asthma (19%)	Asthma (15%)	Asthma (8%)
	Asthma (15%)	Acute infectious diseases (13%)	ADHD (14%)	ADHD (6%)
Mental health	2.7%	9.8%	23.6%	23.8%
Food/activity	14.2%	23.0%	34.8%	37.7%
Healthy nutrition	11.1%	13.3%	13.1%	11.4%
Obesity	2.4%	6.0%	11.5%	13.1%
Lack of exercise	0.7%	3.7%	9.2%	10.7%
Environment	9.3%	5.6%	3.1%	2.3%
Risky behaviors	0	0	3.8%	44.3%
Safety	13.1%	19.1%	22.4%	33.6%
Development	13.3%	10.2%	7.8%	12.0%
Parenting	3.8%	3.1%	2.4%	3%
Oral health	1.8%	1.7%	0.8%	0.8%

Abbreviations: ADHD Attention deficit hyperactivity disorder

* Parents could provide up to 3 responses