



Children, Adolescents, and Advertising

Committee on Communications

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

ABSTRACT

Advertising is a pervasive influence on children and adolescents. Young people view more than 40 000 ads per year on television alone and increasingly are being exposed to advertising on the Internet, in magazines, and in schools. This exposure may contribute significantly to childhood and adolescent obesity, poor nutrition, and cigarette and alcohol use. Media education has been shown to be effective in mitigating some of the negative effects of advertising on children and adolescents.

INTRODUCTION

Several European countries forbid or severely curtail advertising to children; in the United States, on the other hand, selling to children is simply “business as usual.”¹ The average young person views more than 3000 ads per day on television (TV), on the Internet, on billboards, and in magazines.² Increasingly, advertisers are targeting younger and younger children in an effort to establish “brand-name preference” at as early an age as possible.³ This targeting occurs because advertising is a \$250 billion/year industry with 900 000 brands to sell,² and children and adolescents are attractive consumers: teenagers spend \$155 billion/year, children younger than 12 years spend another \$25 billion, and both groups influence perhaps another \$200 billion of their parents’ spending per year.^{4,5} Increasingly, advertisers are seeking to find new and creative ways of targeting young consumers via the Internet, in schools, and even in bathroom stalls.¹

THE EFFECTS OF ADVERTISING ON CHILDREN AND ADOLESCENTS

Research has shown that young children—younger than 8 years—are cognitively and psychologically defenseless against advertising.^{6–9} They do not understand the notion of intent to sell and frequently accept advertising claims at face value.¹⁰ In fact, in the late 1970s, the Federal Trade Commission (FTC) held hearings, reviewed the existing research, and came to the conclusion that it was unfair and deceptive to advertise to children younger than 6 years.¹¹ What kept the FTC from banning such ads was that it was thought to be impractical to implement such a ban.¹¹ However, some Western countries have done exactly that: Sweden and Norway forbid all advertising directed at children younger than 12 years, Greece bans toy advertising until after 10 PM, and Denmark and Belgium severely restrict advertising aimed at children.¹²

www.pediatrics.org/cgi/doi/10.1542/peds.2006-2698

doi:10.1542/peds.2006-2698

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

Key Words

advertising, media, television, product placements, children and media, smoking, alcohol, birth control, obesity, junk food, fast food, Channel One, Federal Trade Commission

Abbreviations

TV—television
FTC—Federal Trade Commission
ED—erectile dysfunction

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275). Copyright © 2006 by the American Academy of Pediatrics

ADVERTISING IN DIFFERENT MEDIA

Television

Children and adolescents view 40 000 ads per year on TV alone.¹³ This occurs despite the fact that the Children's Television Act of 1990 (Pub L No. 101-437) limits advertising on children's programming to 10.5 minutes/hour on weekends and 12 minutes/hour on weekdays. However, much of children's viewing occurs during prime time, which features nearly 16 minutes/hour of advertising.¹⁴ A 30-second ad during the Super Bowl now costs \$2.3 million but reaches 80 million people.¹⁵

Movies

A 2000 FTC investigation found that violent movies, music, and video games have been intentionally marketed to children and adolescents.¹⁶ Although movie theaters have agreed not to show trailers for R-rated movies before G-rated movies in response to the release of the FTC report, children continue to see advertising for violent media in other venues. For instance, M-rated video games, which according to the gaming industry's own rating system are not recommended for children younger than 17 years, are frequently advertised in movie theaters, video game magazines, and publications with high youth readership.¹⁷ Also, movies targeted at children often prominently feature brand-name products and fast food restaurants.¹⁸ In 1997-1998, 8 alcohol companies placed products in 233 motion pictures and in 1 episode or more of 181 TV series.¹⁸

Print Media

According to the Consumer's Union,¹⁹ more than 160 magazines are now targeted at children. Young people see 45% more beer ads and 27% more ads for hard liquor in teen magazines than adults do in their magazines.²⁰ Despite the Master Settlement Agreement with the tobacco industry in 1998, tobacco advertising expenditures in 38 youth-oriented magazines amounted to \$217 million in 2000.²¹

The Internet

An increasing number of Web sites try to entice children and teenagers to make direct sales. Teenagers account for more than \$1 billion in e-commerce dollars,²² and the industry spent \$21.6 million on Internet banner ads alone in 2002.²³ More than 100 commercial Web sites promote alcohol products.²³ The content of these sites varies widely, from little more than basic brand information to chat rooms, "virtual bars," drink recipes, games, contests, and merchandise catalogues. Many of these sites use slick promotional techniques to target young people.^{23,24} In 1998, the Children's Online Privacy Protection Act (Pub L No. 105-277) was passed, which mandates that commercial Web sites cannot knowingly collect information from children younger than 13

years. These sites are required to provide notice on the site to parents about their collection, use, and disclosure of children's personal information and must obtain "verifiable parental consent" before collecting, using, or disclosing this information.²⁵

MARKETING TECHNIQUES

Advertisers have traditionally used techniques to which children and adolescents are more susceptible, such as product placements in movies and TV shows,²⁶ tie-ins between movies and fast food restaurants,¹⁸ tie-ins between TV shows and toy action figures or other products,⁷ kids' clubs that are linked to popular shows, and celebrity endorsements.²⁷ Cellular phones are currently being marketed to 6- to 12-year-olds, with the potential for directing specific advertisers to children and preteens. Coca-Cola reportedly paid Warner Bros. Studios \$150 million for the global marketing rights to the movie "Harry Potter and the Sorcerer's Stone,"²⁸ and nearly 20% of fast food restaurant ads now mention a toy premium in their ads.²⁹ Certain tie-in products may be inappropriate for children (eg, action figures from the World Wrestling Federation or an action doll that mutters profanities from an R-rated *Austin Powers* movie).

Children's advertising protections will need to be updated for digital TV, which will be in place before 2010. In the near future, children watching a TV program will be able to click an on-screen link and go to a Web site during the program.³⁰ Interactive games and promotions on digital TV will have the ability to lure children away from regular programming, encouraging them to spend a long time in an environment that lacks clear separation between content and advertising. Interactive technology may also allow advertisers to collect vast amounts of information about children's viewing habits and preferences and target them on the basis of that information.³¹

SPECIFIC HEALTH-RELATED AREAS OF CONCERN

Tobacco Advertising

Tobacco manufacturers spend \$30 million/day (\$11.2 billion/year) on advertising and promotion.³² Exposure to tobacco advertising may be a bigger risk factor than having family members and peers who smoke³³ and can even undermine the effect of strong parenting practices.³⁴ Two unique and large longitudinal studies have found that approximately one third of all adolescent smoking can be attributed to tobacco advertising and promotions.^{35,36} In addition, more than 20 studies have found that children exposed to cigarette ads or promotions are more likely to become smokers themselves.^{37,38} Recent evidence has emerged that tobacco companies have specifically targeted teenagers as young as 13 years of age.³⁹

Alcohol Advertising

Alcohol manufacturers spend \$5.7 billion/year on advertising and promotion.⁴⁰ Young people typically view 2000 beer and wine commercials annually,⁴¹ with most of the ads concentrated in sports programming. During prime time, only 1 alcohol ad appears every 4 hours; yet, in sports programming, the frequency increases to 2.4 ads per hour.^{42,43} Research has found that adolescent drinkers are more likely to have been exposed to alcohol advertising.⁴⁴⁻⁵⁰ Given that children begin making decisions about alcohol at an early age—probably during grade school⁵⁰—exposure to beer commercials represents a significant risk factor.^{46,50} Minority children may be at particular risk.⁵¹

Drug Advertising

“Just Say No” as a message to teenagers about drugs seems doomed to failure given that \$11 billion/year is spent on cigarette advertising, \$5.7 billion/year is spent on alcohol advertising, and nearly \$4 billion/year is spent on prescription drug advertising.⁵² Drug companies now spend more than twice as much on marketing as they do on research and development. The top 10 drug companies made a total profit of \$35.9 billion in 2002—more than the other 490 companies in the Fortune 500 combined.⁵³ Is such advertising effective? A recent survey of physicians found that 92% of patients had requested an advertised drug.^{54,55} In addition, children and teenagers may get the message that there is a drug available to cure all ills and heal all pain, a drug for every occasion (including sexual intercourse).⁴¹

Food Advertising and Obesity

Advertisers spend more than \$2.5 billion/year to promote restaurants and another \$2 billion to promote food products.⁵⁶ On TV, of the estimated 40 000 ads per year that young people see, half are for food, especially sugared cereals and high-calorie snacks.^{29,57} Healthy foods are advertised less than 3% of the time; children rarely see a food advertisement for broccoli.⁵⁸ Increasingly, fast food conglomerates are using toy tie-ins with major children’s motion pictures to try to attract young people.⁵⁹ Nearly 20% of fast food ads now mention a toy premium in their commercials.²⁹ Several studies document that young children request more junk food (defined as foods with high-caloric density but very low nutrient density) after viewing commercials.⁶⁰⁻⁶³ In 1 study, the amount of TV viewed per week correlated with requests for specific foods and with caloric intake.⁶¹ At the same time, advertising healthy foods has been shown to increase wholesome eating in children as young as 3 to 6 years of age.⁶⁴

Sex in Advertising

Sex is used in commercials to sell everything from beer to shampoo to cars.⁶⁵ New research is showing that

teenagers’ exposure to sexual content in the media may be responsible for earlier onset of sexual intercourse or other sexual activities.^{66,67} What is increasingly apparent is the discrepancy between the abundance of advertising of products for erectile dysfunction (ED) (between January and October, 2004, drug companies spent \$343 million advertising Viagra, Levitra, and Cialis)⁶⁸ and the lack of advertising for birth control products or emergency contraceptives on the major TV networks. This is despite the fact that 2 national polls have found that a majority of Americans favor the advertising of birth control on TV.^{69,70} Ads for ED drugs give children and teens inappropriate messages about sex and sexuality at a time when they are not being taught well in school sex education programs.^{71,72} Research has definitively found that giving teenagers increased access to birth control through advertising does not make them sexually active at a younger age.⁷³⁻⁸⁰

American advertising also frequently uses female models who are anorectic in appearance and, thus, may contribute to the development of a distorted body self-image and abnormal eating behaviors in young girls.^{79,81,82}

ADVERTISING IN SCHOOLS

Advertisers have slowly but steadily infiltrated school systems around the country. The “3 Rs” have now become the “4 Rs,” with the fourth R being “retail.”^{83,84} Ads are now appearing on school buses, in gymnasiums, on book covers, and even in bathroom stalls.⁸⁵ More than 200 school districts nationwide have signed exclusive contracts with soft drink companies.⁸⁶ These agreements specify the number and placement of soda-vending machines, which is ironic given that schools risk losing federal subsidies for their free breakfast and lunch programs if they serve soda in their cafeterias. In addition, there are more than 4500 Pizza Hut chains and 3000 Taco Bell chains in school cafeterias around the country.⁸⁷

There is some good news, however. In May, 2006, the nation’s largest beverage distributors agreed to halt nearly all sales of sodas to public schools and sell only water, unsweetened juice, and low-fat milk in elementary and middle schools. Diet sodas would be sold only in high schools.⁸⁸

School advertising also appears under the guise of educational TV: Channel One. Currently available in 12 000 schools, Channel One consists of 10 minutes of current-events programming and 2 minutes of commercials. Advertisers pay \$200 000 for advertising time and the opportunity to target 40% of the nation’s teenagers for 30 seconds.⁸⁹ According to a recent government report, Channel One now plays in 25% of the nation’s middle and high schools⁸¹ and generates profits estimated at \$100 million annually.⁸⁹

CONCLUSIONS

Clearly, advertising represents “big business” in the United States and can have a significant effect on young people. Unlike free speech, commercial speech does not enjoy the same protections under the First Amendment of the Constitution.⁹⁰ Advertisements can be restricted or even banned if there is a significant public health risk. Cigarette advertising and alcohol advertising would seem to fall squarely into this category, and ads for junk food could easily be restricted.⁹¹

One solution that is noncontroversial and would be easy to implement is to educate children and teenagers about the effects of advertising—media literacy. Curricula have been developed that teach young people to become critical viewers of media in all of its forms, including advertising.^{92–94} Media education seems to be protective in mitigating harmful effects of media, including the effects of cigarette, alcohol, and food advertising.^{93–96}

RECOMMENDATIONS

1. Pediatricians should become familiar with the methods that advertisers use to target children and adolescents.
2. Pediatricians should only subscribe to magazines that are free of tobacco and alcohol advertisements for their waiting rooms (eg, *Good Housekeeping* has refused to carry tobacco ads since 1952).
3. Pediatricians should counsel their patients to limit total noneducational screen time to no more than 2 hours/day,⁹⁷ which will limit exposure to advertising of all kinds.
4. Pediatricians should write letters to advertisers if they see inappropriate ads and should encourage parents to do the same (letters can be addressed to the Children’s Advertising Review Unit, Council of Better Business Bureaus, 845 Third Ave, New York, NY 10022).
5. Pediatricians should work with community groups and local school boards to implement media education programs that teach about the effects of advertising on children and adolescents. The federal government should help underwrite the cost of establishing and disseminating such programs.
6. Pediatricians should work with parents, schools, community groups, and others to ban or severely curtail school-based advertising in all forms.
7. Pediatricians should work with parent and public health groups to:
 - a. ask Congress and the Federal Communications Commission to limit commercial advertising on children’s programming to no more than 5 to 6

minutes/hour, which would decrease the current amount by 50%;

- b. ask Congress to implement a ban on cigarette and tobacco advertising in all media, including banners and logos in sports arenas;
 - c. ask Congress to restrict alcohol advertising to what is known as “tombstone advertising,” in which only the product is shown, not cartoon characters or attractive women;
 - d. ask Congress to implement a ban on junk-food advertising during programming that is viewed predominantly by young children;
 - e. ask Congress to increase funding for public TV—the sole source of high-quality, educational, non-commercial programming for children;
 - f. advocate for confining ads for ED drugs to after 10 PM. The American Academy of Pediatrics has always strongly endorsed the advertising of birth control on TV. There is now considerable evidence that birth control advertising could lower teen pregnancy rates even further while having no impact on rates of teen sexual activity.⁷⁹ However, when birth control advertising is so rare on prime time TV, it makes no sense to allow ED drug advertising that may confuse children and teens about human sexuality and make sexual activity seem like a recreational sport.
 - g. ask Congress and the Federal Communications Commission to prohibit interactive advertising to children in digital TV; and
 - h. ask Congress to convene a national task force on advertising under the auspices of the Institute of Medicine, the National Institutes of Health, or the FTC. This task force would discuss the nature of the current problem and the current research and would propose solutions toward limiting children’s exposure to unhealthy advertising, including the funding of future research. The task force would include representatives from the toy industry, the fast food industry, and the advertising community, as well as pediatricians, child psychiatrists and psychologists, and public health advocates.
8. Pediatricians, together with the American Academy of Pediatrics Media Resource Team, should work with the entertainment industry to ensure that the advertising of violent media to children does not occur, that product placements in movies and TV do not occur, that the dissemination and enforcement of the individual industries’ own rating systems is facilitated, and that advertising for contraceptives is more widely disseminated on network TV.

COMMITTEE ON COMMUNICATIONS, 2006–2007

Donald L. Shifrin, MD, Chairperson
Ari Brown, MD
Benard P. Dreyer, MD
Kenneth R. Ginsburg, MD, MSED
Regina M. Milteer, MD
Kathleen G. Nelson, MD
Deborah Ann Mulligan, MD

LIAISONS

Michael Brody, MD
American Academy of Child and Adolescent Psychiatry
Brian Wilcox, PhD
American Psychological Association

CONTRIBUTOR

*Victor C. Strasburger, MD
AAP Section on Media

STAFF

Carolyn Kolbaba
Veronica Noland

*Lead author

REFERENCES

1. Strasburger VC. Children and TV advertising: nowhere to run, nowhere to hide. *J Dev Behav Pediatr.* 2001;22:185–187
2. Goodman E. Ads pollute most everything in sight. *Albuquerque Journal.* June 27, 1999:C3
3. McNeal J. *Kids as Customers: A Handbook of Marketing to Children.* Lexington, MA: Lexington Books; 1992
4. Quart A. *Branded: The Buying and Selling of Teenagers.* Cambridge, MA: Perseus; 2003
5. Span P. Marketers hang on affluent teen-agers' every wish. *Albuquerque Journal.* June 27, 1999:C3
6. Kunkel D. Children and television advertising. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media.* Thousand Oaks, CA: Sage; 2001:375–393
7. Strasburger VC, Wilson BJ. *Children, Adolescents, and the Media.* Thousand Oaks, CA: Sage; 2002
8. Unnikrishnan N, Bajpai S. *The Impact of Television Advertising on Children.* Thousand Oaks, CA: Sage; 1996
9. American Psychological Association. Television advertising leads to unhealthy habits in children; says APA task force [press release]. Washington, DC: American Psychological Association; February 23, 2004. Available at: www.apa.org/releases/childrenads.html. Accessed October 31, 2005
10. Macklin MC, Carlson L, eds. *Advertising to Children: Concepts and Controversies.* Thousand Oaks, CA: Sage; 1999
11. Federal Trade Commission. *In the Matter of Children's Advertising: FTC Final Staff Report and Recommendation.* Washington, DC: US Government Printing Office; 1981
12. Valkenburg PM. Media and youth consumerism. *J Adolesc Health.* 2000;27(2 suppl):52–56
13. Comstock G, Scharer E. *Television: What's On, Who's Watching, and What it Means.* San Diego, CA: Academic Press; 1999
14. Robins JM. Increasingly, TV's a mess of messages. *TV Guide.* March 30–April 5, 2002;41–42
15. Gentile G. Cinemas want movie fans to sit still for ads (Associated Press). *Albuquerque Journal.* March 6, 2003; Business Outlook: 19
16. Federal Trade Commission. *Marketing Violent Entertainment to Children: Report of the FTC.* Washington, DC: Federal Trade Commission; September 2000
17. Funk JB. Video games. *Adolesc Med Clin.* 2005;16:395–411, ix
18. National Research Council and Institute of Medicine. *Reducing Underage Drinking: A Collective Responsibility.* Washington, DC: National Academies Press; 2003. Available at: www.iom.edu/Object.File/Master/19/780/0.pdf. Accessed October 31, 2005
19. Consumers Union. Selling America's kids: commercial pressures on kids of the 90's. Available at: www.consumersunion.org/other/sellingkids/index.htm. Accessed October 31, 2005
20. Rumbelow H. Study: alcohol ads often reach teens. *Washington Post.* September 24, 2002:A03
21. King C III, Siegel M. The Master Settlement Agreement with the tobacco industry and cigarette advertising in magazines. *N Engl J Med.* 2001;345:504–511
22. Montgomery K. Digital kids: the new on-line children's consumer culture. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media.* Thousand Oaks, CA: Sage; 2001: 635–650
23. Center on Alcohol Marketing and Youth. *Clicking With Kids: Alcohol Marketing and Youth on the Internet.* Washington, DC: Center on Alcohol Marketing and Youth; 2004
24. Donnerstein E. The Internet. In: Strasburger VC, Wilson BJ, eds. *Children, Adolescents, and the Media.* Thousand Oaks, CA: Sage; 2002:301–321
25. Children's online privacy protection rule: final rule. 64 *Federal Register* 59888 (1999) (codified at 16 CFR 312)
26. Sargent JD, Tickle JJ, Beach ML, Dalton MA, Ahrens MB, Heatherton TF. Brand appearances in contemporary cinema films and contribution to global marketing of cigarettes. *Lancet.* 2001;357:29–32
27. Robertson T, Rossiter J, Gleason T. Children's receptivity to proprietary medicine advertising. *J Consum Res.* 1979;6: 247–255
28. American Academy of Pediatrics, Committee on Nutrition. Soft drinks replacing healthier alternatives in American diet. *AAP News.* 2002;20:36
29. Reece BB, Rifon NJ, Rodriguez K. Selling food to children: is fun part of a balanced breakfast? In: Macklin MC, Carlson L, eds. *Advertising to Children: Concepts and Controversies.* Thousand Oaks, CA: Sage; 1999:189–208
30. Children Now. *Digital Television: Sharpening the Focus on Children. Conference Report.* Oakland, CA: Children Now; 2004. Available at: http://publications.childrennow.org/publications/media/dtvconvening_2004.cfm. Accessed October 16, 2006
31. Written comments of the Children's Media Policy Coalition submitted to the Federal Communications Commission, MM docket 00–167 in the matter of Children's Television Obligations of Digital Television Broadcasters
32. Federal Trade Commission. *Cigarette Report for 2001.* Washington, DC: Federal Trade Commission; 2003
33. Evans N, Farkas A, Gilpin E, Berry C, Pierce JP. Influence of tobacco marketing and exposure to smokers on adolescent susceptibility to smoking. *J Natl Cancer Inst.* 1995;87: 1538–1545
34. Pierce JP, Distefan JM, Jackson C, White MM, Gilpin EA. Does tobacco marketing undermine the influence of recommended parenting in discouraging adolescents from smoking? *Am J Prev Med.* 2002;23:73–81
35. Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Berry CC. Industry promotion of cigarettes and adolescent smoking [published correction appears in *JAMA.* 1998;280:422]. *JAMA.* 1998;279: 511–515
36. Biener L, Siegel M. Tobacco marketing and adolescent smoking: more support for a causal inference. *Am J Public Health.* 2000;90:407–411

37. Pierce JP, Lee L, Gilpin EA. Smoking initiation by adolescent girls, 1944 through 1988: an association with targeted advertising. *JAMA*. 1994;271:608–611
38. Sargent JD, Dalton M, Beach M. Exposure to cigarette promotions and smoking uptake in adolescents: evidence of a dose-response relation. *Tob Control*. 2000;9:163–168
39. Weinstein H. Papers: RJR went for teens. *Los Angeles Times*. January 15, 1998:A1
40. Center on Alcohol Marketing and Youth. *Alcohol Advertising and Youth*. Washington, DC: Center on Alcohol Marketing and Youth; November 2003. Available at: <http://camy.org/factsheets/index.php?FactsheetID=1>. Accessed October 31, 2005
41. Strasburger VC. Children, adolescents, and the media. *Curr Probl Pediatr Adolesc Health Care*. 2004;34:54–113
42. Grube JW. Television alcohol portrayals, alcohol advertising, and alcohol expectancies among children and adolescents. In: Martin SE, ed. *The Effects of the Mass Media on Use and Abuse of Alcohol*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism; 1995
43. Madden PA, Grube JW. The frequency and nature of alcohol and tobacco advertising in televised sports, 1990 through 1992. *Am J Public Health*. 1994;84:297–299
44. Aitken PP, Eadie DR, Leather DS, McNeill RE, Scott AC. Television advertisements for alcoholic drinks do reinforce underage drinking. *Br J Addict*. 1988;83:1399–1419
45. Wylie A, Zhang JF, Casswell S. Positive responses to televised beer advertisements associated with drinking and problems reported by 18 to 29-year-olds. *Addiction*. 1998;93:749–760
46. Austin EW, Knaus C. Predicting future risky behavior among those “too young” to drink as the result of advertising desirability. Paper presented at: meeting of the Association for Education in Journalism and Mass Communication; Baltimore, MD; August 5–8, 1998
47. Grube JW. *Alcohol Advertising and Alcohol Consumption: A Review of Recent Research—National Institute on Alcohol Abuse and Alcoholism 10th Special Report to Congress on Alcohol and Health*. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism; 1999
48. Robinson TN, Chen HL, Killen JD. Television and music video exposure and risk of adolescent alcohol use. *Pediatrics*. 1998;102(5). Available at: www.pediatrics.org/cgi/content/full/102/5/e54
49. Strasburger VC. Alcohol advertising and adolescents. *Pediatr Clin North Am*. 2002;49:353–376, vii
50. Austin EW, Meili HK. Effects of interpretations of televised alcohol portrayals on children’s alcohol beliefs. *J Broadcast Electron Media*. 1994;38:417–435
51. Ringel JS, Collins RL, Ellickson PL. Time trends and demographic differences in youth exposure to alcohol advertising on television. *J Adolesc Health*. 2006;39:473–480
52. Rubin A. Prescription drugs and the cost of advertising them: part I. Available at: www.therubins.com/geninfo/advertise.htm. Accessed October 31, 2005
53. Angell M. *The Truth About the Drug Companies, How They Deceive Us and What to Do About It*. New York, NY: Random House; 2004
54. Thomaselli R. 47% of doctors feel pressured by DTC drug advertising. *Advertising Age*. January 14, 2003
55. Rosenthal MB, Berndt ER, Donohue JM, Frank RG, Epstein AM. Promotion of prescription drugs to consumers. *N Engl J Med*. 2002;346:498–505
56. Horgen KB, Choate M, Brownell KD. Television food advertising: targeting children in a toxic environment. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media*. Thousand Oaks, CA: Sage; 2001:447–461
57. Taras HL, Gage M. Advertised foods on children’s television. *Arch Pediatr Adolesc Med*. 1995;149:649–652
58. Kunkel D, Gantz W. *Television Advertising to Children: Message Content in 1990—Report to the Children’s Advertising Review Unit of the National Advertising Division, Council of Better Business Bureaus*. Bloomington, IN: Indiana University; 1991
59. Sokol RJ. The chronic disease of childhood obesity: the sleeping giant has awakened. *J Pediatr*. 2000;136:711–713
60. Liebert RM, Sprafkin J. *The Early Window: Effects of Television on Children and Youth*. 3rd ed. New York, NY: Pergamon Press; 1988
61. Taras HL, Sallis JF, Patterson TL, Nader PR, Nelson JA. Television’s influence on children’s diet and physical activity. *J Dev Behav Pediatr*. 1989;10:176–180
62. Ray JW, Klesges RC. Influences on the eating behavior of children. *Ann NY Acad Sci*. 1993;699:57–69
63. Borzekowski DL, Robinson TN. The 30-second effect: an experiment revealing the impact of television commercials on food preferences of preschoolers. *J Am Diet Assoc*. 2001;101:42–46
64. Gorn GH, Goldberg ME. Behavioral evidence of the effects of televised food messages on children. *J Consum Res*. 1982;9:200–205
65. Kilbourne J. *Deadly Persuasion: Why Women and Girls Must Fight the Addictive Power of Advertising*. New York, NY: Free Press; 1999
66. Collins RL, Elliott MN, Berry SH, et al. Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics*. 2004;114(3). Available at: www.pediatrics.org/cgi/content/full/114/3/e280
67. Brown JD, L’Engle KL, Pardun CJ, Guo G, Kenneavy K, Jackson C. Sexy media matter: exposure to sexual content in music, movies, television, and magazines predicts black and white adolescents’ sexual behavior. *Pediatrics*. 2006;117:1018–1027
68. Snowbeck C. FDA tells Levitra to cool it with ad. *Pittsburgh Post-Gazette*. April 19, 2005. Available at: www.post-gazette.com/pg/05109/490334.stm. Accessed October 16, 2006
69. Harris L and Associates. *Attitudes About Television, Sex and Contraception Advertising*. New York, NY: Planned Parenthood Federation of America; 1987
70. Mozes A. US TV viewers find condom ads acceptable. Reuters Health. Available at: www.reutershealth.com. Accessed October 18, 2005
71. Elliott S. Viagra and the battle of the awkward ads. *The New York Times*. April 25, 2004:B1
72. Santelli J, Ott MA, Lyon M, Rogers J, Summers D. Abstinence-only sex education policies and programs: a position paper of the Society for Adolescent Medicine. *J Adolesc Health*. 2006;38:83–87
73. Furstenberg FF Jr, Geitz LM, Teitler JO, Weiss CC. Does condom availability make a difference? An evaluation of Philadelphia’s health resource centers. *Fam Plann Perspect*. 1997;29:123–127
74. Guttmacher S, Lieberman L, Ward D, Freudenberg N, Radosh A, DesJarlais D. Condom availability in New York City public high schools: relationships to condom use and sexual behavior. *Am J Public Health*. 1997;87:1427–1433
75. Jemmott JB III, Jemmott LS, Fong GT. Abstinence and safer sex HIV risk-reduction interventions for African American adolescents: a randomized controlled trial. *JAMA*. 1998;279:1529–1536
76. Schuster MA, Bell RM, Berry SH, Kanouse DE. Impact of a high school condom availability program on sexual attitudes and behaviors. *Fam Plann Perspect*. 1998;30:67–72, 88
77. Kirby D, Brener ND, Brown NL, Peterfreund N, Hillard P, Harist R. The impact of condom availability [correction of distribution] in Seattle schools on sexual behavior and condom use [published correction appears in *Am J Public Health*. 1999;89:422]. *Am J Public Health*. 1999;89:182–187

78. Blake SM, Ledsky R, Goodenow C, Sawyer R, Lohrmann D, Windsor R. Condom availability programs in Massachusetts high schools: relationships with condom use and sexual behavior. *Am J Public Health*. 2003;93:955–962
79. Strasburger VC. Adolescents, sex, and the media: ooooo, baby, baby—a Q & A. *Adolesc Med Clin*. 2005;16:269–288, vii
80. Sellers DE, McGraw SA, McKinlay JB. Does the promotion and distribution of condoms increase teen sexual activity? Evidence from an HIV prevention program for Latino youth. *Am J Public Health*. 1994;84:1952–1959
81. British Medical Association. *Eating Disorders, Body Image & the Media*. London, England: British Medical Association; 2000
82. Borzekowski DL, Bayer AM. Body image and media use among adolescents. *Adolesc Med Clin*. 2005;16:289–313
83. Ward CL. New report examines commercialism in U.S. schools. *New York Times*. September 14, 2000:D1
84. Molnar A. School commercialism and adolescent health. *Adolesc Med Clin*. 2005;16:447–461, ix
85. Richards JI, Wartella EA, Morton C, et al. The growing commercialization of schools: issues and practices. *Ann Am Acad Pol Soc Sci*. 1998;557:148–167
86. Hays C. New report examines commercialism in US schools. *New York Times*. September 14, 2000:A1
87. Oleck J. Go ahead, make my lunch: restaurant chains vying for school media market. *Restaurant Business Magazine*. July 20, 1994:54
88. Clinton Foundation. Alliance for a healthier generation—Clinton Foundation and American Heart Association—and industry leaders set healthy school beverage guidelines for U.S. schools [press release]. May 3, 2006. Available at www.clintonfoundation.org. Accessed October 16, 2005
89. Wartella E, Jennings N. Hazards and possibilities of commercial TV in the schools. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media*. Thousand Oaks, CA: Sage; 2001:557–570
90. Shiffrin SH. Alcohol and cigarette advertising: a legal primer. *Adolesc Med*. 1993;4:623–634
91. McGinnis JM, Gootman J, Kraak VI, eds. *Food Marketing to Children and Youth: Threat or Opportunity?* Washington, DC: National Academies Press; 2006
92. Brown JA. Media literacy and critical television viewing in education. In: Singer DG, Singer JL, eds. *Handbook of Children and the Media*. Thousand Oaks, CA: Sage; 2001:681–697
93. McCannon B. Media literacy: what? Why? How? In: Strasburger VC, Wilson BJ, eds. *Children, Adolescents, and the Media*. Thousand Oaks, CA: Sage; 2002:322–367
94. American Academy of Pediatrics, Committee on Public Education. Media education. *Pediatrics*. 1999;104:341–343
95. Austin EW, Johnson KK. Effects of general and alcohol-specific media literacy training on children's decision making model about alcohol. *J Health Commun*. 1997;2:17–42
96. Austin EW, Pinkleton BE, Fujioka Y. The role of interpretation processes and parental discussion in the media's effects on adolescents' use of alcohol. *Pediatrics*. 2000;105:343–349
97. American Academy of Pediatrics, Committee on Public Education. Children, adolescents, and television. *Pediatrics*. 2001;107:423–426