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Smokefree Outdoor Recreational Areas

There is growing concern that outdoor secondhand smoke (SHS) can pose a health hazard to both people and the environment. Recent studies show outdoor exposure to concentration levels of SHS can exceed current U.S. EPA limits on fine particulate matter pollution, and SHS concentrations in a variety of outdoor settings can be comparable to those in smoky indoor settings. Children and the elderly are particularly susceptible to SHS exposure. Even brief exposure to SHS can trigger serious health problems for asthmatics of all ages, and people with compromised cardiovascular systems.

There is a compelling basis to institute smoking bans to protect individuals in outdoor settings. In New Jersey, only 15% of the adult population smokes - 85% do not smoke., More than 100 local NJ governments have shown support for smokefree air outdoors by enacting more than a hundred ordinances to protect health, control litter, reduce fires, guard infants and animals from ingesting poisonous tobacco butt waste, and reduce environmental toxicity. A November 2011 CDC report cites that 69% of smokers want to quit, and they are encouraged to do so when visiting 100% smokefree environments.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6044a2.htm?s_cid=mm6044a2_w

Outdoor bans help:

- Protect people, especially children who congregate at parks, playgrounds and beaches, from secondhand smoke. Studies show that concentrations of outdoor SHS can equal indoor SHS levels.
- Set a standard that promotes public health by creating healthful environments for outdoor exercise and activities, and helps to normalize smokefree environments.
- Promote community efforts to "go green" and be environmentally friendly.
- Eliminate the concern of discarded cigarette butts that are ingested by children and animals.
- Improve oceanic and marine life with lower toxicity levels by reduced butt waste in lakes, bays and oceans.
- Reduce litter and the increased costs for municipal county and state clean-up costs for recreational areas.
- Reduce accidental fires caused by discarded cigarette butts in forests and parks.
- Facilitate the preservation of land and water for conservation and recreational purposes.

The following information outlines the trend with supporting data to create 100% smokefree policies for parks, playgrounds, recreational areas, athletic fields, swimming pools, and beaches.

1. New Jersey state, county and local legislation, regulations, and policies show support for smokefree outdoor environments from many departments and levels of government:

2006 New Jersey Smoke-Free Air Act (NJSFAA) prohibits smoking outdoors:

- On all public and private K-12 school grounds, N.J.S. 26:3D-58; N.J.A.C. 8:6-7.1 and 2. http://www.njgasp.org/sfaa_2010_w-ecigs.pdf
- Playgrounds, and recreational places owned by local municipalities, private entities or other individuals during those times when the school district has exclusive use of a portion of such land, N.J.A.C. 8:6-7.2(b)(3). http://njgasp.org/nj_admin_code.pdf
- At an exterior area if smoking in the exterior area results in migration, seepage, or recirculation of smoke to an indoor public place or a workplace at which smoking is prohibited, N.J.A.C. 8:6-2.3 (a) and (b). http://www.njgasp.org/nj_admin_code.pdf

Resource Family Homes (foster homes, adoptive homes, family friend homes and relative care homes): this New Jersey regulation bans smoking in all resource family homes, cars that transport a resource family child, and outdoors when a resource family child is present. N.J.A.C. 10:122C-7.2(a)(3) was adopted by the Department of Human Services on December 19, 2005, effective February 6, 2006 (from the Manual of Requirements for Resource Family Parents at <http://www.state.nj.us/dcf/divisions/licensing/RFmanual.pdf>)

Any public place: smoking or carrying lighted tobacco may be prohibited by the owner or person responsible for operating any public place or by municipal ordinance under the authority of N.J.S.A. 40:48-1 and 2. Conspicuous posting of adequate notice of the prohibition is required. This law may also apply to outdoor area, including sports facilities. N.J.S.A. 2C:33-13(b).

Business implement 100% outdoor smokefree policies: Many business owners have instituted 100% smokefree outdoor policies for their properties. In New Jersey, this includes the outdoor seating and pedestrian areas in the Meadowlands Sports Complex. College campuses are starting to implement 100% smokefree campus policies, and at least 100 hospital campuses in New Jersey have a 100% smokefree policy.

There are 123 municipalities and 9 counties in New Jersey that passed 157 outdoor bans eliminating or restricting smoking near government buildings, in parks, playgrounds, recreational fields, swimming pools, and beaches. Within those ordinances, the following specifically regulate:

- 3 counties (Bergen, Somerset and Union) and 100 municipalities passed 116 ordinances to regulate the use and discard of tobacco products in parks and recreation areas.
- 18 municipalities restrict smoking at ocean, bay, and lake beaches. Belmar was one of the first in the country to restrict smoking on both their beaches and boardwalk. The first summer after the ordinance was enacted, beach tag revenues increased by 17.6%.
- Seaside Park has made their ocean beaches and boardwalks 100% smokefree. Sunset Beach in Lower Township (Cape May County) is 100% smokefree. http://www.njgasp.org/Belmar_beach_ordinance_sf_effects_article.pdf
- 15 municipalities and 3 counties (Bergen, Somerset, Union) ban smoking at swimming pools.
- 6 counties and 25 municipalities have established outdoor perimeters around or near government-owned facilities. Setbacks range from 10 feet to 50 feet from entrances and/or perimeters of buildings and some have all grounds smokefree.
- 2 counties and 1 municipality have banned smoking at zoos to protect the patrons, especially the children, and the well being and safety of the animals as well as potential damage to surrounding vegetation: Turtle Back Zoo, Essex County, Cape May County Zoo, and Cohanzick Zoo, Bridgeton.
- Six Flags Amusement Park was made smokefree by an ordinance prohibiting smoking on the premises of any amusement part located in the Township of Jackson. Search GASP's New Jersey local laws database at http://njgasp.org/d_search1.asp.

2. Legislation outside of New Jersey:

New York City bans smoking at all five borough outdoor recreational areas under the jurisdiction of the city's Department of Parks and Recreation, **as well as pedestrian plaza areas** designated by the city's Department of Transportation:

- On May 23, 2011, New York City's public parks went 100% smokefree. On February 22, 2011, Mayor Bloomberg signed into law NYC's ordinance banning smoking at all city outdoor recreational areas covered by the city's Department of Parks and Recreation in all five city boroughs. The law covers 1,700 public parks and 14 miles of public beaches, specifically: "public parks, beaches, waters and land under water, pools, boardwalks, marinas, golf courses, playgrounds, recreation centers and all other property, equipment, buildings and facilities now or hereafter under the jurisdiction, charge or control of the department of parks and recreation." Pedestrian plazas are also included, such as Times Square, with a pedestrian plaza defined as "an area designated by the department of transportation for use as a plaza located within the bed of a roadway, which may contain benches, tables, or other facilities for pedestrian use." Fines are up to \$50 per offense. Read the press release at <http://mikebloomberg.com/index.cfm?objectid=506896EA-C29C-7CA2-F1CBA42F41575D7C>

- On February 2, 2011, New York City's City Council voted in favor of the ordinance. City Council Speaker Christine Quinn stated that the new law will save lives and make New York a healthier place to live. Read the new NYC smokefree parks law, and Health Committee's Report at <http://legistar.council.nyc.gov/LegislationDetail.aspx?ID=773185&GUID=FD6CB044-E7FC-497B-A487-7B9457D760FC&Options=&Search=>. Read the City Council's minutes approving the ordinance at http://www.njgasp.org/NYC_Council_Minutes_2-2-2011.pdf

U.S. states, municipalities, and commonwealth territories have passed 100% smokefree legislation. *

- 123 municipalities in the U.S. prohibit 100% smoking on beaches.
- Maine prohibits smoking on State beaches and the Commonwealth of Puerto Rico bans smoking on beaches.
- 222 municipalities and the States of Iowa, New York and Wisconsin and the Territory of Guam and the U.S. Virgin Islands prohibit 100% smoking in outdoor public transit waiting areas.
- 192 Municipalities and the States of Hawaii, Iowa, Maine, Michigan and Washington State, and the Commonwealth of Puerto Rico have enacted laws for 100% smokefree outdoor dining areas.
- 574 Municipalities (includes NJ) and the Commonwealth of Puerto Rico prohibit 100% smoking in all parks.
- 52 Municipalities (includes NJ) and the State of Oklahoma prohibits 100% smoking in all indoor and outdoor areas of zoos.
- New York City outdoor property under the city's Department of Parks and Recreation including pedestrian plazas under the city's Department of Transportation are 100% smokefree as of May 23, 2011.
- Philadelphia recreational center properties including playgrounds and pools as of July 1, 2011.

* These lists can be found at <http://no-smoke.org/goingsmokefree.php?id=519#outdoor>.

3. Studies that show measurable harmful effects from secondhand smoke exposure outdoors:

Outdoor SHS is determined by the density of smokers, the wind velocity (direction and speed), and the stability of the atmosphere. During continuous smoking, SHS levels outdoors may be as high as SHS indoors.

- 2010 study of children exposed to secondhand smoke between ages 8 to 13 are more likely to show thickening of blood vessel walls, a precursor to hardening and clogging of arteries. Children exposed to the most SHS had higher levels of apolipoprotein B, which contributes to "bad" cholesterol, another heart disease risk factor. The findings suggest that children should not be exposed to SHS at any level; even small amounts of SHS exposure may be harmful for blood vessels. The researchers concluded that children need to be provided with a smokefree environment.

Circulation: Cardiovascular Quality and Outcomes, A Journal published by the American Heart Association, March 2010. http://www.njgasp.org/Kallio_2009_study-SHS_increasing_risk_of_childhood_arterial_blockage.pdf

- 2009 study to SHS exposure at outdoor bars and family restaurants in Athens, Georgia, using salivary cotinine. Conclusion: Nonsmokers outside restaurants and bars in Athens, Georgia, had significantly elevated salivary cotinine levels indicative of secondhand smoke exposure.

The objective of this study was to measure salivary cotinine, a metabolic byproduct of nicotine, in 21-30 year olds exposed to SHS outside bars and restaurants in Athens, Georgia. The study, one of the first to assess levels of cotinine in nonsmokers exposed to SHS outdoors, found levels up to 162% greater than in the control group that was not exposed to outdoor SHS. The results were published in the Journal of Occupational and Environmental Hygiene.

The team found an average increase in cotinine of 162% for the volunteers stationed at outdoor seating and standing areas at bars, 102% for those outside of restaurants, and 16% for the control group near the library. Cotinine levels in the volunteers at the bar setting saw their levels increase from an average pre-exposure level of 0.069 nanograms per milliliter (ng/ml), to an average post-exposure level of 0.182 ng/ml. The maximum value observed,

however, was 0.959 ng/ml. To put that number into context, a widely cited study has determined that an average cotinine level of 0.4 ng/ml increases lung cancer deaths by 1 for every 1,000 people and increases heart disease deaths by 1 for every 100 people.

The University of Georgia, College of Public Health, Department of Environmental Health Sciences, Athens, Georgia, Hall JC, Bernert JT, Hall DB, St. Helen G., Kudon LH, Naehler LP <http://oeh.informaworld.com/soeh/content~content=a914966130~db=all~jumptype=rss>

- 2009 Australia study SHS exposure (PM2.5) in outdoor dining areas. Conclusions: When individuals sit in outdoor dining venues where smokers are present, it is possible that they will be exposed to substantial SHS levels. Significant increases in exposure were observed when monitors were located under overhead covers, and as the number of nearby smokers increased. The role of outdoor smoking restrictions in minimizing exposure to SHS must be considered. Cameron M, Brennan E, Durkin SJ, Borland R, Travers MJ, Hyland A, Wakefield MA, Cancer Council Victoria, Australia, *Tobacco Control* 2009 Oct. 21. <http://tobaccocontrol.bmj.com/content/early/2009/10/21/tc.2009.030544.abstract>
 - 2008 Fact Sheet on outdoor air pollution from SHS by researcher James Repace: Field studies and controlled experiments demonstrate that, regardless of which way the wind blows, an individual in an outdoor cafe, transiting through a building doorway, or otherwise surrounded by a group of smokers, is always downwind from the source. Under some conditions, levels of outdoor SHS can be as high as indoor levels of secondhand smoke (SHS). Some studies and conclusions cited in the fact sheet: **
 1. California: The Air Resources Board study (CARB, 2006), measured SHS nicotine concentrations outside an airport, college, government center, office complex, and amusement park. CARB found that at these typical outdoor locations, Californians may be exposed to SHS levels as high as indoor SHS concentrations.
 2. In August 2003, researchers measured outdoor SHS respirable particle pollution in five outdoor cafes and on city streets in downtown Helsinki. Results found that air pollution levels in Helsinki outdoor cafes with many smokers during August 2003 were 5 to 20 times higher than on the sidewalks of busy streets polluted by bus, truck, and auto traffic. The results were presented by researchers at the 2006 World Conference on Tobacco or Health in Helsinki, Finland. **
 3. In 2005 researchers in Maryland measured outdoor fine particle and carcinogen concentrations from outdoor SHS on the University of Maryland Baltimore campus. SHS levels approached background levels either for fine particles or carcinogens until about 23 feet from the source. **
 4. Caribbean: Experiments conducted on a cruise ship traveling at 20 knots at sea in the Caribbean showed that SHS levels in various smoking-permitted outdoor areas of the ship tripled the level of carcinogens to which nonsmokers were exposed relative to indoor and outdoor areas in which smoking did not occur, despite the strong breezes and unlimited dispersion volume. Moreover, outdoor smoking areas were contaminated with SHS to nearly the same extent as a popular casino on board in which smoking was permitted. **
- ** James L. Repace, MSc., Visiting Assistant Professor, Tufts University School of Medicine, and Repace Associates, Inc., 101 Felicia Lane, Bowie, MD 20720 U.S.A., http://www.repace.com/pdf/OTS_FACT_SHEET.pdf
- 2007 Stanford University Study on real-time measurement of outdoor tobacco smoke particles. Measured SHS respirable particle concentrations in outdoor patios, on airport and city sidewalks, and in parks. Concluded within about 2 feet of a smoker outdoor SHS was quite high and comparable to SHS concentrations measured indoors, and levels measured at two sidewalk cafés were detectable at distances beyond 13 feet. Researchers surmise:

1. Children who accompany a smoking parent or guardian may experience substantial exposure.
2. Support for health-based outdoor SHS bans may lie in a potential acute effect on susceptible populations. Short-term OTS exposure might be life threatening for high-risk persons, since the human cardiovascular system is very sensitive to secondhand smoke.
Klepis, Ott, and Switzer, <http://news-service.stanford.edu/pr/2007/pr-smoke-50907.html>

4. Environmental hazards and litter:

Discarding cigarette butts can start fires that may destroy a forest, park, field, home or office building. A fire attributed to a cigarette butt thrown by a worker from a second-floor balcony burned down a Commercial Wharf office building perched on wood pilings in Boston Harbor. Fire fighters suffered injury and damage was estimated at \$3 million. <http://www.njgasp.org/boston.com-wharfire-blamed-on-cigarette-5-5-2011.pdf>

Environmental hazard of cigarette filters. Every year 4.95 trillion cigarette filters are discarded globally into our environment and many are found on sidewalks, beaches, parks, and other public places and often end up in our waterways and washed back onto beaches. Cigarette filters can take many years to decompose but they are not 100% biodegradable. As filters break down, they leach toxic chemicals into watersheds, streams, lakes, and oceans, and are hazardous and highly toxic to fish, birds, other wildlife, plus pets and young children if they are ingested. Carried as runoff from streets to drains, to rivers, and ultimately to the ocean and its beaches, cigarette filters are the single most collect item each year in international beach cleanups. <http://www.cigwaste.org>

Alliance for a Living Ocean conducted a Long Beach Island, NJ beach clean-up, for its 17th annual Earth Day Clean-up on April 24, 2010. The most common trash item was cigarette butts. Cigarette lighters, cigar tips and tobacco packaging/wrappers were also collected. http://www.livingocean.org/assets/earthday2010_cleanup.pdf

In 2010, 8,372 volunteers came together in record showing to collect an unprecedented amount of debris from the New Jersey shores on April 30 and October 22, 2010. Volunteers collected and recorded 475,321 pieces of debris, turning two days of work into a legacy of information that will drive policies and programs for years to come. Key findings: Out of top 12 marine debris items:

- ranked #3 = Cigarette filters accounted for 10% of debris picked up (ranked 2 in 2009, ranked in 2008, ranked 4 in 2007)
- ranked #8 = Cigar Tips accounted for 2% of debris picked up (ranked 12 in 2009, ranked 8 in 2008, not in top 12 in 2007)

	Spring Total	Fall Total	2010 Totals	Percentage of Total
Cigarette Filters	17731	28172	45903*	9.7%
Cigarette Lighters	1007	963	1970*	0.4%
Cigarette Packaging	1438	1459	2897	0.6%
Cigar Tips	5216	5112	10328*	2.2%

* Denotes record amount

<http://www.cleanoceanaction.org/index.php?id=778>

The 2009 Annual Report found cigarette filters were the 2nd most recovered item, although it ranked first in previous years. Floating cigarette filters mimic fish, and filters have been found in the stomachs of birds and larger fish, blocking and affecting their digestion. Also, the filters are made of plastic fibers and trap carcinogenic chemicals that are introduced into animals' bloodstreams. All annual reports can be viewed at the Clean Ocean Action website: <http://www.cleanoceanaction.org>

NJ REBEL Clean-ups: NJ REBEL was a NJ statewide, youth-led tobacco-free movement, dedicated to educating peers, middle and elementary school children, and other members of the community about the dangers of tobacco use. NJ REBEL operated until July, 2010 under the auspices of the New Jersey Department of Health and Senior Services' Comprehensive Tobacco Control Program when their program funding was eliminated.

Ten years ago on August 20, 2001, more than 700 NJ REBEL teens conducted a statewide beach

sweep, cleaning litter from eight New Jersey beaches, and collected 38,000 cigarette butts in just 2 1/2 hours. County-wide NJ REBEL groups also conducted 2009 outdoor tobacco litter clean-ups:

- Atlantic County REBEL conducted cleanups at beaches and parks: two were in Atlantic City and one in Ventnor. The students picked up more than 3000 butts. The previous summer several cleanups were conducted and picked up more than 7,000 butts.
- Bergen County REBEL Clean-ups: 2,000 butts cleaned up by 16 REBEL students at Garden State Plaza. School Clean-ups: 8,000 plus butts cleaned up at 10 high schools and 5 middle schools in Bergen County.
- Camden County REBEL conducted a cleanup in Cooper River Park, Pennsauken. About 20 members from Camden Catholic High School, Cherry Hill, collected cigarette butts that filled a large jug.
- Hunterdon County REBEL, 50 students cleaned up their school campuses at Delaware Valley, North Hunterdon and Central, and Latino REBEL cleaned up The Flemington Arms Apartment complex, collecting 1,083 cigarette butts in June.
- Mercer County REBEL, 150 volunteers collected about 500 cigarette butts in a school grounds cleanup in June.
- Somerset County REBEL collected 2,500 cigarette butts.
- Warren County REBEL conducted on beach cleanup in June at Point Pleasant Beach with three high school chapters participating. They found about 3,000 cigarette butts along a small stretch of coast.

5. "Go Green" trend supports outdoor smokefree environments:

Outdoor smokefree recreational environments align with community efforts to promote "going green". Environmentally-friendly plans should incorporate clean air and reduced litter, which decreases a community's carbon footprint.

- TripAdvisor's 2010 annual beach and pool etiquette survey of more than 2,000 U.S. travelers found that 83 percent believe smoking should be banned around the pool. Their 2009 survey of more than 3,000 travelers ranked smoking as the second most annoying beach and pool etiquette violations.
http://www.njgasp.org/TripAdvisor_2010_survey_results.pdf
http://www.njgasp.org/TripAdvisor_2009_survey_results.pdf

Outdoor smokefree beaches and pools may cast a positive influence on travelers' destination decisions, and travelers are choosing environmentally-friendly hotels:

- TripAdvisor's 2009 annual travel trends survey also found that thirty-four percent of U.S. respondents said they will visit an environmentally-friendly hotel or resort in the coming year, up from 30 percent in 2008. Thirty-two percent of those surveyed said they will be more environmentally conscious in their travel decisions this year, than they were the year before. In July 2008, only 26 percent said they would be more environmentally conscious.
http://www.njgasp.org/TripAdvisor_2009_travel_trends_survey_results.pdf
- 1.5 million more tourists would be expected to visit a smokefree shore destination as estimated by an ICR Survey of potential Atlantic City visitors.
http://www.njgasp.org/i_economics_ICR_Survey_News_Brief.pdf

6. Normalization of outdoor smokefree environments:

The Center for Disease Control and Prevention (CDC) states that smokefree policies reduce smoking among all ages. By challenging the perception of smoking as a normal adult behavior, smokefree policies can change the attitudes and behaviors of adolescents, resulting in a reduction in tobacco use initiation (Oxford University Press, October 2006). The study "Association Between Household and Workplace Smoking Restrictions and Adolescent Smoking" published in the *Journal of the American Medical Association* in October 2006, found that adolescents who work in smokefree workplaces are significantly less likely to be smokers than adolescents who work in workplaces with partial smoking restrictions.
<http://jama.ama-assn.org/cgi/content/abstract/284/6/717>

Many high-profile athletes, coaches, agencies, and organizations joined CDC's tobacco-free sports movement which includes agencies and organizations that support tobacco-free sports. Participants

include CDC, World Health Organization, National Cancer Institute, National Clearinghouse for Alcohol and Drug Information, National SAFE KIDS Campaign, International Olympic Committee, Federation Internationale de Football Association, and many other sports leagues and youth organizations.
<http://www.cdc.gov/tobacco/youth/sports/index.htm>

Minnesota's tobacco-Free Youth Recreation program began in 2000, and since that time has assisted more than 90 Minnesota cities and four counties in establishing tobacco-free policies for their parks beaches, athletic fields, playgrounds, and other recreational facilities.

<http://www.ansrmn.org/programs/tobacco-free-youth-recreation>