



# Sunscreen In The City:

## A Proposal To Provide Free Sunscreen At City Parks And Beaches

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As the weather warms, millions of New Yorkers will journey to our 14 miles of beaches and nearly 30,000 acres of parkland.<sup>1</sup> Whether it's strolling down the historic Coney Island Boardwalk, splashing in the surf at Jacob Riis beach, taking a hike along the Staten Island Blue Belt, picnicking in Pelham Bay Park, or basking with a book on Central Park's Great Lawn, all New Yorkers should be able to safely enjoy New York City's many great public spaces.

One essential part of safe summer fun is guarding against harsh ultraviolet (UV) rays and the many associated health risks caused by sun exposure, most notably, skin cancer. Skin cancer affects one in five Americans and is responsible for half of all cancer cases in the United States, making it the most common type of cancer in the country. The disease takes the lives of more than 10,000 Americans a year and imposes medical costs of \$8.1 billion dollars annually.<sup>2</sup>

The risk of harm should not deter New Yorkers from enjoying the City's many attractions. By judiciously and regularly applying sunblock, as well as reducing exposure to the high summer sun, New Yorkers can greatly reduce their risk of serious skin cancer. According to the Skin Cancer Foundation, the regular application of sunscreen with a sun protection factor (SPF) rating of 15 or higher can reduce the risk of developing squamous cell carcinoma and melanoma by about 40 and 50 percent, respectively.<sup>3</sup>



This policy brief, by Comptroller Scott M. Stringer, proposes that New York follow the example of other cities, like Boston and Miami Beach, and help protect its families and residents against the dangers of skin cancer by providing free, high quality 30+ SPF sunscreen at parks, beaches and amenities across the City.

By experimenting with innovative funding programs, like advertising contracts, licensing agreements or partnerships with advocacy groups and local healthcare companies, New York can provide sunscreen at limited or no cost to the City, while potentially saving lives and medical costs, not to mention the discomfort of a bad sunburn.



## Sunburnt: The Growing Risk of Sun Exposure

Every year, doctors diagnose more new cases of skin cancer than breast, prostate, lung and colon cancers combined.<sup>4</sup> As a result, in 2014, the United States Surgeon General issued a “Call to Action,” designating the risk of skin cancer as a “major public health concern” and implored both the public and private sectors to take concrete steps to protect Americans.<sup>5</sup>

As the Surgeon General notes, even on a cloudy day, UV radiation poses a threat to our health. Short periods of unprotected exposure—as little as 15 minutes—can allow UV light to do irreparable damage to the DNA in skin cells, putting individuals at a risk for cancer.<sup>6</sup> In fact, as many as 90 percent of melanomas, the most dangerous form of skin cancer, are attributable to UV exposure.<sup>7</sup>

Sunburns are more than an unpleasant souvenir from the beach. Research shows that on average “a person’s risk for melanoma doubles if he or she has had more than five sunburns” over their lifetime.<sup>8</sup> Even when a sunburn fades, permanent damage to the skin remains and damage may be compounded with each new sunburn. Given, the cumulative effect of sun damage, guarding children against UV rays is critically important. It is estimated 80 percent of total lifetime sun exposure occurs before the age of 18.<sup>9</sup>

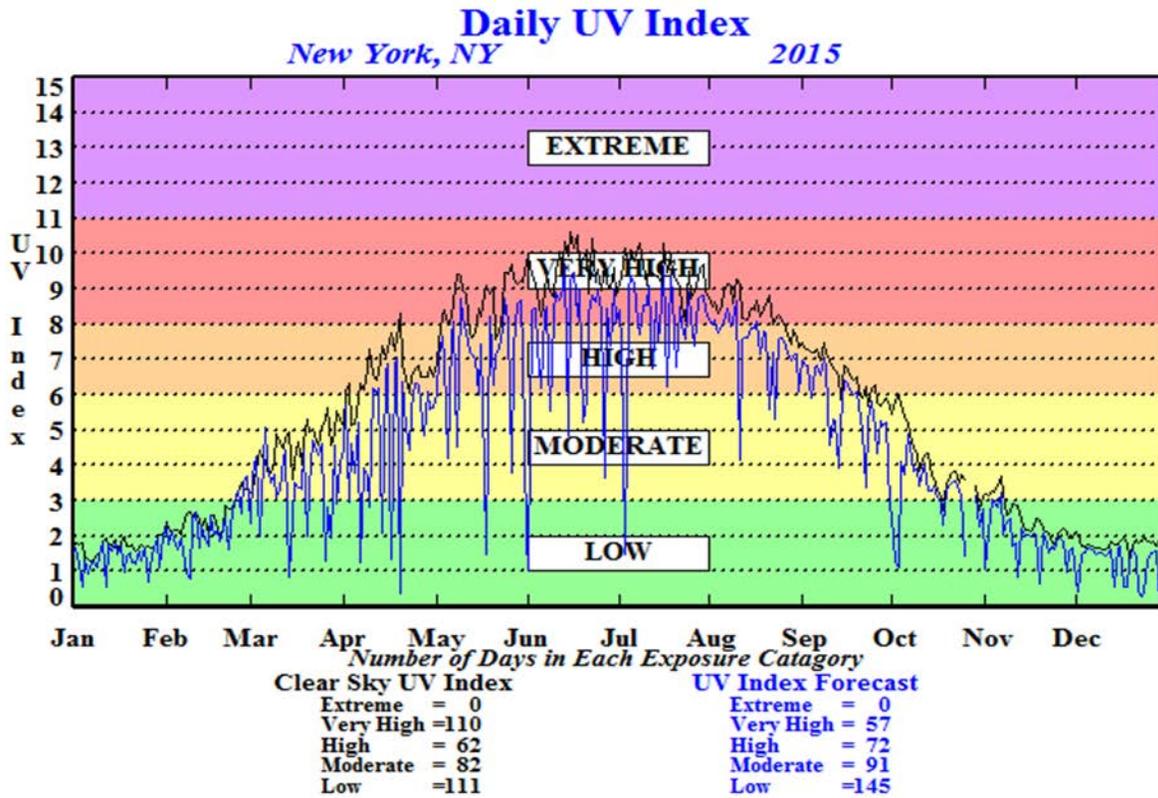
Skin cancer is not only common, it is also on the rise. According to medical research, the average annual number of adults treated for skin cancer grew by nearly 40 percent in between two samples conducted in 2002-2006 and 2007-2011, and the rate of melanomas has doubled since the early 1970s.<sup>10</sup> Furthermore, scientists anticipate rates of skin cancer may sharply rise in the years ahead.<sup>11</sup>

## Sun Risk in New York

While New York does not suffer from the same punishing sun as the tropics, the Empire State ranks right alongside sun-saturated southern cities like Montgomery, Alabama, and Raleigh, North Carolina, with an average of 234 days of sunshine per year.<sup>12</sup>



As shown in the chart below, summer in the City is a dangerous time for our skin, with an average UV index rating of 6 to 7, putting New Yorkers at “high risk of harm from unprotected sun exposure.”<sup>13</sup> In fact, venturing out unprotected when the UV index measures over 7 can result in a sunburn in as little as 20 minutes.<sup>14</sup>



According to the New York State Department of Health, New York hospitals conducted over 4,000 surgeries for melanoma cases and 11,000 surgeries for other skin cancers in 2012.<sup>15</sup> While the number of outpatient surgeries gives some indication to the prevalence of severe skin cancers in the State, it does not record the total number of diagnoses or any cases that did not result in surgery. Given that an estimated 50 percent of doctors fail to report melanomas to cancer registries, the number of cancer cases within the State could be much higher.<sup>16</sup>

## Sunscreen and Safety

While staying out of the high summer sun is the best way to prevent skin cancer, sunscreen is proven to greatly reduce the risk of sun burns and skin cancer.<sup>17</sup> Regular use of a sunscreen with sun protection factor (SPF) of 15 or higher is estimated to reduce the risk of developing squamous cell carcinoma and melanoma by about 40 and 50 percent, respectively.<sup>18</sup> Not only does sunscreen



increase safety, it also prevents premature aging, with individuals who use sunscreen daily showing 24 percent less skin aging than those not regularly applying sunscreen.<sup>19</sup>

Typically, the higher the SPF, the more effective the sunscreen. However, while SPF does give some indication of a sunscreen's ability to protect skin, it is a somewhat flawed metric. Unless labeled as broad-spectrum, SPF only measures a sunscreen's ability to block UV-B rays, not equally harmful UV-A rays.<sup>20</sup> As a result, it is important to seek out broad spectrum sunscreen, which provides superior protection.<sup>21</sup>

Similarly confusing for consumers, the protection sunscreen provides does not directly correlate with its SPF rating. For instance, a sunscreen with a 30 SPF rating will block 96.7 percent of UV-B rays, while an equivalent sunscreen with a 50 SPF rating will absorb 98 percent of UV-B rays.<sup>22</sup> In many cases, higher SPF sunscreens may not provide a benefit equivalent to their typically higher price. For this reason, Canada and Japan recently banned sunscreens above 50 SPF, citing research that high SPF ratings mislead consumers and foster a false sense of security about sun safety measures.<sup>23</sup> The FDA considered similar measures in the late 1990s but failed to act.<sup>24</sup>

Given, our reliance on sunscreen to protect skin against dangerous UV rays, consumers should be confident that the sunscreen they are applying will provide appropriate protection for a reasonable price. A municipal sunscreen program could help consumers gain access to high quality, dermatologist recommended, 30+ SPF sunscreen at their local park or beach.

## Sunscreen in the City

New York should launch a program to provide free, high quality sunscreen in its parks, beaches, and playgrounds. By equipping public spaces with sunscreen dispensers, the City can help protect its citizen's against sunburns, reduce the risk of cancer, and allow its residents to safely enjoy the outdoors.

Just as the City encouraged private businesses to install hand sanitizer stations in the wake of the Swine Flu epidemic, New York City should seek to proactively protect the health of its residents by installing sunscreen dispensers.<sup>25</sup>

In developing a sunscreen program, New York can learn from the examples of two other prominent cities with sunscreen programs: Miami Beach and Boston.

### Miami Beach

In 2014, Miami Beach began a pilot program of 50 free dispensers providing SPF 30 sunscreen. Miami Beach's program was made feasible by a licensing agreement struck by Miami Beach and sunscreen producer Destination Brands.<sup>26</sup>



According to the terms of the agreement, Destination Brands gained the exclusive right to use the trademarked “MB” logo of Miami Beach to market sun care products as the “official” brand of Miami Beach. In exchange, Destination Brands remits royalties on the sale of their products to Miami Beach and funds the operation of the free sun screen dispensers on the beach.<sup>27</sup> Today, MB sun care products are sold across the country and around the world.

In addition to this licensing agreement, the Mount Sinai Medical Center in Miami Beach helped facilitate the program by covering the cost of the dispensers and their installation, which totaled approximately \$20,000.

As a result of these partnerships, few taxpayer dollars have been spent on the program, which was recently touted by the Centers for Disease Control as a potential model for reducing harmful sun exposure.<sup>28</sup>

Given the global reach of New York’s incredibly powerful brand, a licensing arrangement presents a possible way for New York to finance a free sunscreen program. The City already profits from the use of licensing deals. Indeed, NYC & Company, the City’s official tourism and marketing arm, brings in an annual revenue of \$24 million dollars from allowing New York brands, like the NYPD and FDNY insignias, on products.<sup>29</sup>

## **Boston**

Similarly, Boston has developed a program to provide sunscreen free of charge at city parks, stocking its dispensers with about 670 applications of SPF 30 sunscreen.<sup>30</sup> While Boston initially chose 30 sites for the dispensers, the coalition behind the program is seeking to expand the program for this coming summer, both in Boston and beyond.<sup>31</sup>

In a partnership coordinated by Boston City Councilor Matt O’Malley and Mayor Martin Walsh, funding and support for the program is provided by the Melanoma Foundation of New England, an advocacy group dedicated to the awareness and prevention of skin cancer.<sup>32</sup> As a result, there is no cost to Boston taxpayers.<sup>33</sup>

New York could similarly engage anti-cancer groups, hospitals and health advocacy groups to help bring the benefits of free sunscreen within the reach of the public. Healthcare providers have a powerful incentive to reduce new cases of skin cancer, and their associated medical costs and may be inclined to help fund or administer a New York City program. The City should consider engaging groups of this type to begin development of a citywide program.



## New York

New York should learn from the success of Boston and Miami Beach’s programs in launching its pilot program.

The Department of Parks and Recreation, Public Design Commission, Landmarks Preservation Commission, and New York City Health + Hospitals should work together to identify an attractive, accessible dispenser that can be installed in City-owned parks, beaches, and playgrounds. The City should also explore the feasibility of using the dispensers to promote the benefits of sunscreen and the dangers of skin cancer.

The sunscreen provided should be broad-spectrum, high-SPF, in line with the guidance of the American Academy of Dermatology and the U.S. Food and Drug Administration.

Given that three ounces of sunscreen—just enough for one person’s day at the beach— can cost as much as \$13.99, free sunscreen will help all New Yorkers keep more of their hard-earned cash for other priorities.<sup>34</sup>

Lastly, New York should explore both Boston and Miami Beach’s financing mechanisms by seeking sponsorships from sunscreen companies and/or New York-based hospitals and health groups who have a stake in reducing the annual \$8.1 billion the nation spends on skin cancer treatments.<sup>35</sup> The goal should be to provide this public benefit to New Yorkers at little to no taxpayer expense.

## CONCLUSION

For many, summer in the City means barbeques, baseball in the park, lawn blankets, beach chairs, or an outdoor concert. Summer should not mean a sunburn. By providing free sunscreen in public places, New York City can improve the public health and safety of its residents, while inviting more people to safely enjoy its many outdoor spaces.

In the coming months, Comptroller Stringer will work to coordinate between public and private sector entities to make the provision of free sunscreen a reality.



## ENDNOTES

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- <sup>3</sup> Skin Cancer Foundation, “Skin Cancer Facts & Statistics,” <http://www.skincancer.org/skin-cancer-information/skin-cancer-facts>.
- <sup>4</sup> The Environmental Protection Agency, “Facts About: Skin Cancer, New York,” [https://www.epa.gov/sites/production/files/2014-07/documents/sunsafety\\_fs\\_newyork\\_v6\\_release\\_web508.pdf](https://www.epa.gov/sites/production/files/2014-07/documents/sunsafety_fs_newyork_v6_release_web508.pdf); More than 3.5 million Americans develop a form of basal cell carcinoma, squamous cell carcinoma, or melanoma each year.
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- <sup>7</sup> Melanoma Research Foundation, “Why is Tanning Dangerous,” <https://www.melanoma.org/understand-melanoma/preventing-melanoma/why-is-tanning-dangerous>.
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- <sup>10</sup> G.P. Guy, S.R. Machlin, D.U. Ekwueme, and K.R. Yabrodd, “Prevalence and Costs of Skin Cancer Treatment in the U.S., 2002-2006 and 2007-2011,” <http://www.ncbi.nlm.nih.gov/pubmed/25442229>; Aim at Melanoma Foundation, “Melanoma Stats, Facts, and Figures,” <https://www.aimatmelanoma.org/about-melanoma/melanoma-stats-facts-and-figures/>.
- <sup>11</sup> World Health Organization, “Climate Change and Human Health,” <http://www.who.int/globalchange/summary/en/index7.html>.
- <sup>12</sup> National Oceanic and Atmospheric Administration, “Ranking of Cities Based on % Annual Possible Sunshine,” <http://www1.ncdc.noaa.gov/pub/data/ccd-data/pctposrank.txt>; Current Results, “Days of Sunshine per Year in New York,” <https://www.currentresults.com/Weather/New-York/annual-days-of-sunshine.php>.
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- <sup>15</sup> New York State Department of Health, “Skin Cancer in New York State: Eighth Annual Report 2015,” [https://www.health.ny.gov/statistics/diseases/cancer/skin/report/docs/2015\\_report.pdf](https://www.health.ny.gov/statistics/diseases/cancer/skin/report/docs/2015_report.pdf).
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- <sup>18</sup> Skin Cancer Foundation, “Skin Cancer Facts & Statistics,” <http://www.skincancer.org/skin-cancer-information/skin-cancer-facts>.
- <sup>19</sup> Katherine Hobson, “Sunscreen Each Day Stops Wrinkles” <http://www.wsj.com/articles/SB10001424127887324063304578523174000785786>.
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- <sup>28</sup> Centers for Disease Control and Prevention, “CDC Grand Rounds: Prevention and Control of Skin Cancer,” <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6447a2.htm>.
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- <sup>32</sup> <http://makebigchange.org/about-us/>.
- <sup>33</sup> City of Boston, “Mayor Walsh Announces Free Sunscreen Dispensers Coming to Boston Parks,” <http://www.cityofboston.gov/news/Default.aspx?id=20196>.
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