



Two Shades of Green



Two Shades of Green (TSG) integrates green, healthy, and cost-effective measures into existing affordable housing rehabilitation and property maintenance. TSG is a partnership between LISC New York City, the NYC Department of Health and Mental Hygiene, NYC Smoke Free and several mission-driven developers of affordable housing. Between 2013 and 2015, TSG helped change property management practices in affordable housing portfolios totaling more than 4,000 apartments. Most significantly, TSG worked directly with owners to reduce operating costs and create healthier homes in 1,100 apartments.

The Need

TSG was formed with a recognition of the complex factors impacting health in low-income families: low-income families suffer disproportionately from preventable health problems like asthma, toxic stress, and obesity because they live in poorly constructed and maintained housing; the neighborhoods they live in lack access to critical services and resources like healthcare and green spaces; and rising energy and water costs often strain the operating budgets of multifamily housing, resulting in deferred maintenance and poor indoor conditions. With the emerging consensus that smart property management can help

TSG created healthier homes and reduced operating costs in 1,100 apartments



create healthier living environments, and given LISC NYC's longstanding commitment to preserving the quality and sustainability of affordable housing, we assisted owners and operators of housing to find simple ways to improve their aging building portfolios with a focus on addressing potential health risks.

TSG Program Elements

To advance energy and water conservation measures and incorporate health components during rehabilitation, TSG provides services to affordable housing property owners and managers including:

- 1. Benchmarking** to measure project performance pre- and post-retrofit;
- 2. Monitoring and selecting** buildings with high energy and water use and/or deteriorating housing conditions;
- 3. Conducting** building needs assessments that incorporate energy, water and health upgrades to ensure holistic needs are addressed;
- 4. Coordinating** with available incentive programs;

- 5. Preparing** financing packages to support retrofit work;
- 6. Providing** guidance on retrofit specifications, vendors and/or health related programming; and
- 7. Delivering** staff training and preparing operation and maintenance plans.

TSG provides technical support to help owners of affordable housing integrate the following health measures:

- 1. Safe and green pest control**, which reduces exposure to toxic pesticides, seals holes to prevent pests from entering, and in doing so, conserves heat and reduces asthma risks;
- 2. Smoke-free housing**, which reduces resident exposure to secondhand tobacco smoke and asthma risks, reduces fire risk, and decreases the cost of preparing units for new renters;
- 3. Active design**, which increases resident physical activity through low-cost modifications and additions to buildings and surroundings; and
- 4. Green cleaning**, which reduces exposure to harmful chemicals through the use of cost-effective, safe and environmentally friendly cleaning products.

TSG program materials include: tool kits for [pest control](http://programs.lisc.org/nyc/programs/green_and_healthy_neighborhoods/two_shades_of_green.php), [green cleaning](http://programs.lisc.org/nyc/programs/green_and_healthy_neighborhoods/two_shades_of_green.php), and green and healthy property management, available at: http://programs.lisc.org/nyc/programs/green_and_healthy_neighborhoods/two_shades_of_green.php.

LISC New York City is bringing together health care, community development, environmental and affordable housing fields to test new models of collaboration that create greater health impact, reduce energy and water usage and lower operation and maintenance costs.

We are confident that buildings with fewer pests, tobacco smoke, and moisture problems are healthier, particularly for those with asthma and allergies. Our site visits documented substantial reductions in housing conditions conducive to pests, a key asthma risk, when owners used robust IPM practices.

—Deborah Nagin, NYC DOHMH

TSG Successes

TSG owners lowered operating costs and reduced asthma risks

1. Energy and water use declined by over 30% reducing property operating expenses.

- Electric energy costs declined by more than \$100/apartment/year for most owners.
- Gas heating costs declined by over \$700/apartment/year, in properties that installed new boilers and windows.
- Water savings ranged from \$300 to \$1,100/apartment/year.

2. Owners reduced asthma risks by using renovation as a time to fix unhealthy building conditions through healthier property management practices. Cockroaches, mice, tobacco smoke and harsh cleaning products are known asthma triggers.

- **Fewer Pest Problems:** 2,885 residents are now living in apartments with fewer pests,

improved building conditions, and/or reduced pesticide use. As owners move to implement Integrated Pest Management (IPM) portfolio-wide, thousands more families will be living in healthier buildings.

- **Less Exposure to Tobacco Smoke:** Over 1,100 residents live in apartments that are smoke free, reducing asthma, cancer and heart disease risks.

- **Less Exposure to Harsh Cleaning Products:** 16 TSG buildings and one owner's entire housing portfolio transitioned to green cleaning, reducing asthma risks for 2,275 residents

3. Healthy property management reduced operating costs.

- Cleaning costs declined by 50% in several properties and 25% across one portfolio after switching to green practices.
- \$500–\$1,500 estimated savings in unit turnover costs in apartments with smokers after implementing smoke free policies.
- Pest control services significantly improved with minimal impact on costs. In some properties cost declined by as much as 25% after transitioning to IPM. Costs ranged from \$900 to \$1200 per unit/year, depending on building size and the severity of pest infestation.

4. Owners recognized the value of benchmarking to assess portfolio performance for energy and



water use. 30% of the owners expanded benchmarking to their full portfolio, adding 130 buildings and 4,500 homes.

5. Green and healthy building assessment tools can inform comprehensive renovation plans to reduce energy use, water consumption and building-related asthma risks.

Engagement by NYC Health and Housing Departments was a key for success

1. Collaboration with the NYC Department of Health & Mental Hygiene (DOHMH) was critical in bringing technical expertise to owners around better pest control practices to reduce asthma risks, incorporate active design, and conduct program evaluations.

2. Engagement with NYC Department of Housing & Preservation (HPD) staff enabled TSG initiatives to become a core practice in city housing programs.

Switching to greener less toxic cleaning products made it easier for me to breathe in my apartment.

—Building Super,
St. Nicks Alliance



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