

“Greening Your Hospital Through Transportation, LEED Buildings, and Community Connections”

HealthTrust ESN members:

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Green Transportation at Boston Medical Center



About Boston Medical Center



EXCEPTIONAL CARE. WITHOUT EXCEPTION.

- Private, not-for-profit, 496-bed, academic medical center located in Boston's historic South End
- Primary teaching affiliate for Boston University School of Medicine
- Emphasizes community-based care, with its mission to provide consistently accessible health services to all.
- New England's largest safety net hospital and largest/busiest provider of trauma and emergency services
- Full spectrum of pediatric and adult care services, from primary care and family medicine to advanced specialty care
- 125,435 ED visits in 2016 and more than 1M served patients through ambulatory clinic services



Why Green Transportation?

- Current transportation systems = wide range of problems
 - global warming
 - environmental degradation
 - health implications (physical, emotional, mental, spiritual), and
 - greenhouse gas emissions
- Transport sector attributes to 23% of the globe's greenhouse gas emission from burning of fossil fuels
- Road transport is 75% of total greenhouse gas emissions
- 90% of all road transportation relies on oil; total global oil consumption is 60%
- Policies are being formulated to reverse this harmful trend of air pollution



Vehicle Impact to the Environment

Effects of Vehicle Emissions on the Environment

- Cars emit greenhouse gasses—i.e., carbon dioxide—contributing to global warming
- Some air pollutants and particulate matter is deposited on soil and surface waters
 - Can enter the food chain
 - Affect the reproductive, respiratory, immune and neurological systems of animals.
- Nitrogen oxides and sulfur oxides are major contributors to acid rain
 - Changes the pH of waterways and soils
 - Can harm the organisms that rely on these resources



Public Transportation

A study done in 2009 found that passengers across the country took 10.2 billion trips using public transportation. Since 1995, public transit ridership has grown at a faster rate than either population or highway usage.

10 best cities for public transportation:

1. [Denver-Aurora, Colo.](#)
2. [New York-Newark, N.Y.-N.J.-Conn.](#)
3. [Los Angeles-Long Beach-Santa Ana, Calif.](#)
4. [Boston, Mass.-N.H.-R.I.](#)
5. [Portland, Ore.](#)
6. (tie) [San Jose, Calif.](#)
6. (tie) [Salt Lake City, Utah](#)
8. [San Diego, Calif.](#)
9. [Seattle, Wash.](#)
10. [Honolulu, Hawaii](#)



Our TranSComm Solution

TranSComm (Transportation Solutions for Commuters, Inc.) is a transportation management association (TMA) that coordinates the transportation needs of the Medical Center community in the Albany Street neighborhood of Boston's lower South End. TranSComm represents an innovative way to solve transportation problems. We develop employee programs that promote alternatives to driving alone, reducing traffic congestion and air pollution, and enhancing accessibility in the Albany Street Corridor.

Current Members Include:

- Boston University Medical Campus (BUMC): BU Schools of Medicine, Public Health,
- Graduate Medical Science, and Dental Medicine
- Boston Medical Center (BMC)
- Boston Healthcare for the Homeless Program (BHCHP)



Annual Survey

Below is a chart showing the percentage of trips by mode indicated by the 942 respondents. Public transit is the most popular method of commuting with close to half (48%) of respondents choosing this as their primary mode.

Mode	Trips In Mode	Percentage
Drive Alone	733	15.5%
Carpool	152	3.2%
Vanpool	75	1.5%
Public Transit (commuter rail, bus, subway, ferry/boat, shuttle bus)	2243	48%
Bicycle	495	10.5%
Walk	860	18%
Telecommute	67	1.5%
Flextime	62	1.3%
Other: Motorcycle, Vespa, Scooter	23	.5%

Promoting Use of BU/BMC Employee MBTA Subsidized Pass Program:

- A 35-50% subsidy for monthly MBTA passes ordered through Boston University is available to all regular faculty and staff
- TranSComm assists staff and students with finding the right plan and the type of MBTA pass
- To enroll in the program or manage an existing order, staff log into a self-service portal which is easy to navigate



Promoting Biking

- Biking to BMC/BUMC is very easy; many of the neighboring streets have bike lanes and there is plenty of bike parking in the neighborhood
- Around the BMC/BUMC area, there are a handful of bike racks and **two secured bike cages** for all members of the medical community to use
- Cages are sheltered from the weather and can be accessed using a BMC/BU ID badge
- Annual fee for bike cage access is \$20



Promoting Carpool, Vanpool & Hybrid Vehicles

- On the first level of our employee garage, there are designated parking spaces available for carpool, vanpool and hybrid cars
- Carpooling saves time and money and helps relieve traffic congestion and improve air quality
- Two or more people commuting together can register for a carpool sticker
- Both carpoolers must come to our TransComm department together in order to register
- Vanpoolers can also park in a preferential parking spot
- Hybrid car owners may also register for a hybrid sticker



Nuride in the United States

Launched Jan. 2003

- 174,546 members
- 51,959,353 greener trips
- \$5,520,180 rewards redeemed
- 22,751,720 shared rides
- 20,609,064 transit trips
- 3,718,195 walking trips
- 3,331,717 biking trips
- 1,463,631 telecommutes
- 85,026 compressed work weeks
- 1,040,411,820 miles not driven
- 48,793,080 gallons of gas saved
- \$569,440,405 money saved
- 479,527 tons of emissions prevented
- 2,747,967,701 calories burned

How It Works

Take Greener Trips

Telecommute from home, bike to a friend's house, take transit, or carpool with other NuRide members. Just don't drive by yourself :-)

Record Your Trips

Record your greener trips in your NuRide account and track the money you save, the emissions you prevent, and your NuRide points.

Get Rewards

Redeem your points for restaurant coupons, retailer discounts, and tickets to shows & attractions. It's free and easy to do, so join today.



Offering Electric Vehicle (EV) Charging Stations

- TranSComm has been able to acquire 6 dual Electric Vehicle (EV) Charging Stations for the BMC/BUMC community
- Charging is **free** for the **first four hours** and a **\$10 hourly fee** (after 4 free hours)
- 12 charging spaces exist in our employee parking garages



Offering Bike Share Program

- BMC Employees and BUMC employees and students are eligible for a discounted Hubway Corporate Membership at a 45% discount
- Hubway is metro-Boston's public bike share program, with more than 1600 bikes at 160+ stations across Boston, Brookline, Cambridge and Somerville
- Bikes can be unlocked from one station and returned to any other station in the system, making them ideal for one-way trips
- People use bike share to commute to work or school, run errands, get to appointments or social engagements, and more



Guaranteed Ride Home Program (GRH)

- GRH is designed to rescue commuters who are worried about how they'll get home when an emergency arises
- About 45 members
- Many people let legitimate fears of being stranded at the office or being unable to respond to a family emergency, keep them from taking advantage of sustainable commuting programs.
- With the GRH program you can sit back, relax, and enjoy the ride on transit, in a carpool, or bicycling to work knowing that if plans should unexpectedly change
- You are covered – guaranteed
- Knowing there's a guaranteed ride home allows one to use commuting options like transit and carpools with peace of mind and confidence



Zipcar: Alternative Vehicle Program

- The BUMC community receives a discounted rate for the use of Zipcar
- We are fortunate to have two Zipcars parked on campus
- There are signs pictured below on the sidewalk to illustrate a zipcar location
- There are other Zipcars parked throughout the South End neighborhood
- Staff can visit Zipcar's [website](#) for real-time availability



Promote Motor Scooters

- We promote the use of scooters on campus to:
 - Maximize capacity for all commuters
 - Move forward with our sustainability commitment
 - Encourage the health of all medical center personnel
- All scooters (electric/gas) are registered at the TranSComm office and require a sticker
- Scooters are offered parking next to our bicycle racks to maximize vehicle parking in our garage

Other Activities and Services

BUMC/BMC transportation services office and its TMA (TransComm) staff spend a large portion of their time promoting commuting alternatives and the benefits.

Promotions include:

- MassCommute Bike Week participation.
- Bike safety & maintenance workshops.
- Bike breakfasts & luncheons.
- Free bike tune ups/ giveaways for bike lights, free tire patch kits.
- Free safety lights for MBTA users and people who walk.
- Earth day events, wellness events, sustainability fairs, benefits fair.
- Transportation tabling events at multiple campus cafeterias, and residents event in resident hall.
- MA Clean Air challenge participation.
- Lunch time medical history walk tours around lower South End, Boston.
- Participate in several BUMC student orientations to promote green commuting & bike/ walk safety.

Awards and Accolades

Bicycle Friendly AmericaSM

- Sets standards for what constitutes a real bicycling culture and environment
- Affects decisions on how communities, businesses, universities and states grow
- Inspire action, involvement and coordination to improve bicycling
- Guides progress by acting as a roadmap for what communities, businesses, universities and states should do next
- Rewards persistence as people respond to feedback, make changes and come back again and again to get recognition
- Raises expectations as to what really is expected and involved in making a great place for bicycling



Awards and Accolades

- Provide tenant and employee access to shuttle services
- Participate in two or more bicycling initiatives: (1) provide showers and lockers for employees, (2) offer bicycle or safety workshops, (3) offer secure bicycle parking (e.g. cage or lockers), (4) provide on-site bicycle repair and/or maintenance
- Offer walking programs, such as pedestrian safety workshops and/or lunchtime walking tours
- Subsidize tenant or employee membership in a car-sharing or bike-sharing program (such as Zipcar, Enterprise, Hubway or Zagster)
- Make EV charging stations available on-site
- Employ a Tenant Transportation Coordinator that spends at least 25% of his/her work hours on commuter programs and initiatives
- Fully subsidize transit passes, vanpools, etc.
- Offer a formal telework and/or compressed work week program to employees



Questions?

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<http://www.bumc.bu.edu/transcomm/>

Greening Your Hospital – Part 2

A HealthTrust Sustainability Program

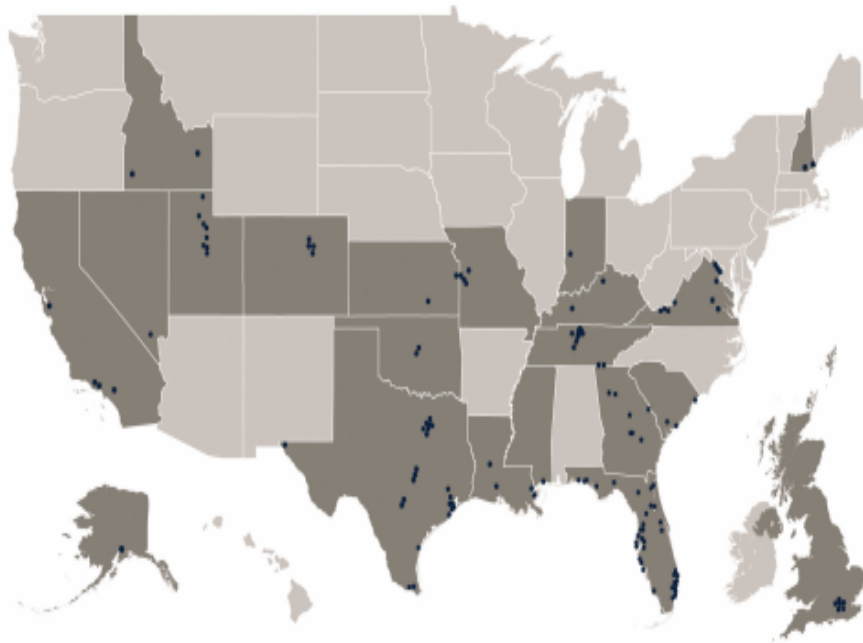
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Anna Ward

Director, Sustainability – HCA

**Member – HealthTrust Environmental
Sustainability Network**

171 hospitals and **118** surgery centers located in **20** states and the United Kingdom



HCA is one of the nation's leading providers of healthcare services, comprised of locally managed facilities that include 171 hospitals and 118 freestanding surgery centers in 20 states and the United Kingdom. With its founding in 1968, Nashville-based HCA created a new model for hospital care in the United States. R. Milton Johnson is the company's chairman and CEO.

HCA Environmental Sustainability

- ECHO – Environmentally Conscious Healthcare Operations
- HCA continues its comprehensive program of environmental sustainability to promote energy and water conservation, green buildings, and increase recycling and environmentally conscious purchasing



What is LEED

- U.S. Green Building Council (USGBC), private membership-based non-profit organization that promotes sustainability in buildings, design, construction and operation.
- USGBC on the Leadership in Energy and Environmental Design (LEED) standard:
 - 3rd party verification system
 - A building or neighborhood's green features, allowing for the design, construction, operations and maintenance of resource-efficient, high-performing, healthy, cost-effective buildings
- LEED for various building projects, including for healthcare

Levels of LEED per USGBC

Certified: 40 – 49 points
Silver: 50 – 59 points
Gold: 60 – 79 points
Platinum: 80 points and above

Example of LEED V2009 Healthcare

- Rating system
- Prerequisites
- Credits
- Points 110 possible points
 - Sustainable site development *18 points*
 - Water efficiency *9 points*
 - Energy and atmosphere *39 points*
 - Materials and resources *16 points*
 - Indoor environmental quality *18 points*
 - Innovation in design process *6 points*
 - Regional priority credits *4 points*

Examples of LEED V2009 Possible Points

- **Development Density and Community Connectivity:** intent to channel development to urban areas with existing infrastructure, protect greenfields and preserve habitat and natural resources
- **Alternative Transportation:** intent to reduce pollution and land development impacts from automobile use
 - Public Transportation Access
 - Bicycle storage and changing rooms
 - Low-emitting and fuel-efficient vehicles
 - Parking capacity

More Examples – LEED V2009

- **Locally sourced materials**
- **Low Volatile Organic Compounds (VOC) materials**
- **Construction waste management**
- **Water use reduction**
- **Brownfield redevelopment**
- **Stormwater design**
- **Energy performance**
- **Heat island effect**
- **Light pollution reduction**
- **Site Development – maximize open space**
- **Connection to the natural world – outdoor places**

Examples from HCA LEED

- **Construction Materials**
 - Wood from certified sustainable resources
 - Materials regionally sourced or materials with recycled content
- **Indoor**
 - Low VOC
- **Waste Management**
 - Diverted construction waste away from landfills
- **Energy**
 - Enhanced refrigerant management
 - Heat island effect
- **Promoting Fuel-Efficient Vehicles**
 - Has had percentage of total parking space dedicated to low emitting and fuel efficient vehicles

Today's Contact Information

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QUESTIONS