

Applying Best Practices in Developing an Education and Enforcement Program:

*Lessons from a Bicycle & Pedestrian
Injury Prevention Campaign in North Carolina*



Campaign Motivation

- 2,900 # of NC peds/bicyclists hit/yr
- 80 % of those hit are injured/killed
- 350+ # of peds in Triangle injured/yr
- 170+ # bicyclists in the Triangle injured/yr

Campaign Goals

Short
Term

- Raise awareness of pedestrian safety issues
- Educate people on relevant laws
 - Officers
 - General public

Longer
Term

- Encourage safer behaviors
- Prevent injuries and fatalities

Campaign ABC's

- Adhere to best practices/evidence
 - Multi-faceted, multi-level approach
 - Messages target specific, key behaviors
 - Intervene at a “Point of Choice”
- Balanced/Comprehensive
- Community-led
- Data-driven

Community Leaders—Year 1

- North Carolina Department of Transportation
- Governor's Highway Safety Program
- City of Raleigh & Police
- City of Durham & Police
- Town of Chapel Hill & Police
- Town of Carrboro & Police
- Capital Area MPO
- Durham Chapel Hill Carrboro MPO
- North Carolina State University & ITRE
- University Police: UNC, NCSU, Duke, NCCU
- Others

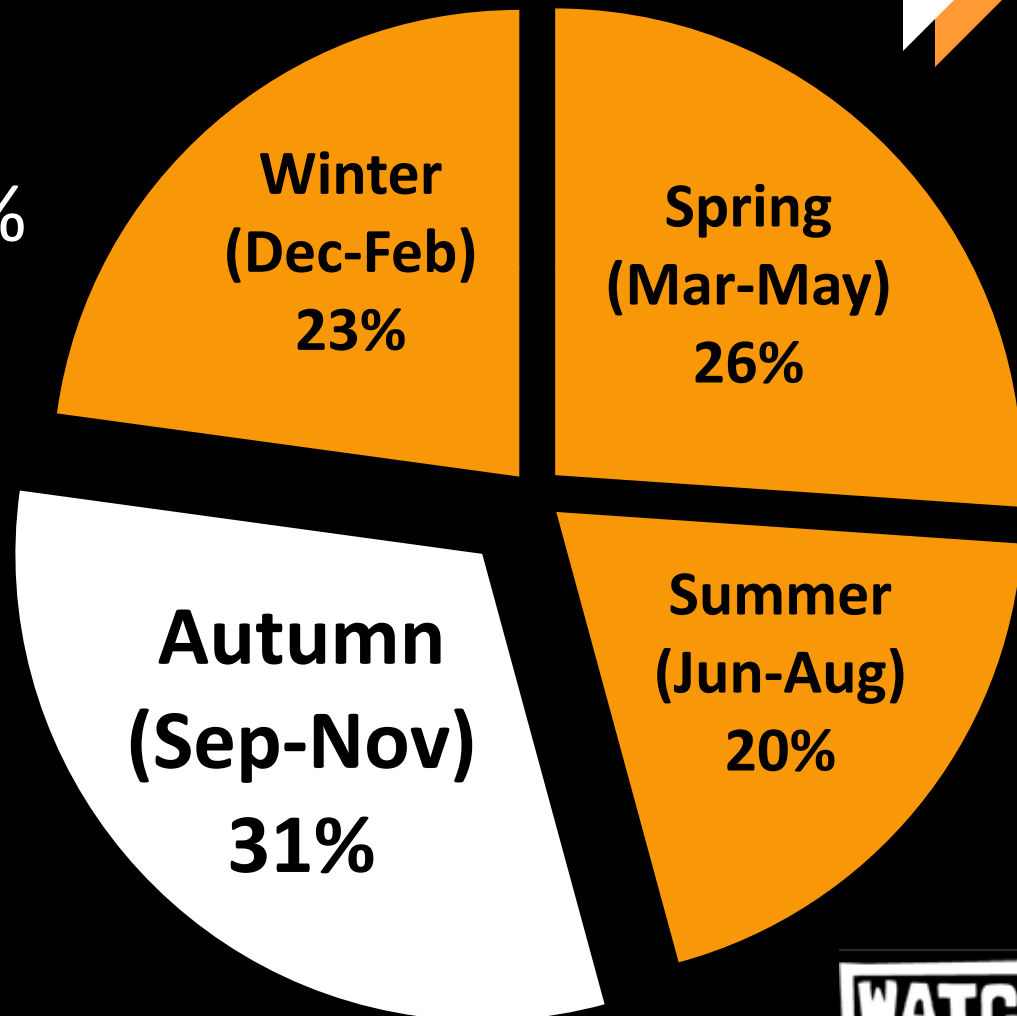


Using Data to ID Issues

1. Stakeholder input
2. Crash data analysis
 - 5+ years of police-reported crashes
 - Geocoded and mapped
3. Site reviews/audits
4. Baseline data collection
 - yielding at 12 marked crosswalks: 20% compliance

Key Trends: When

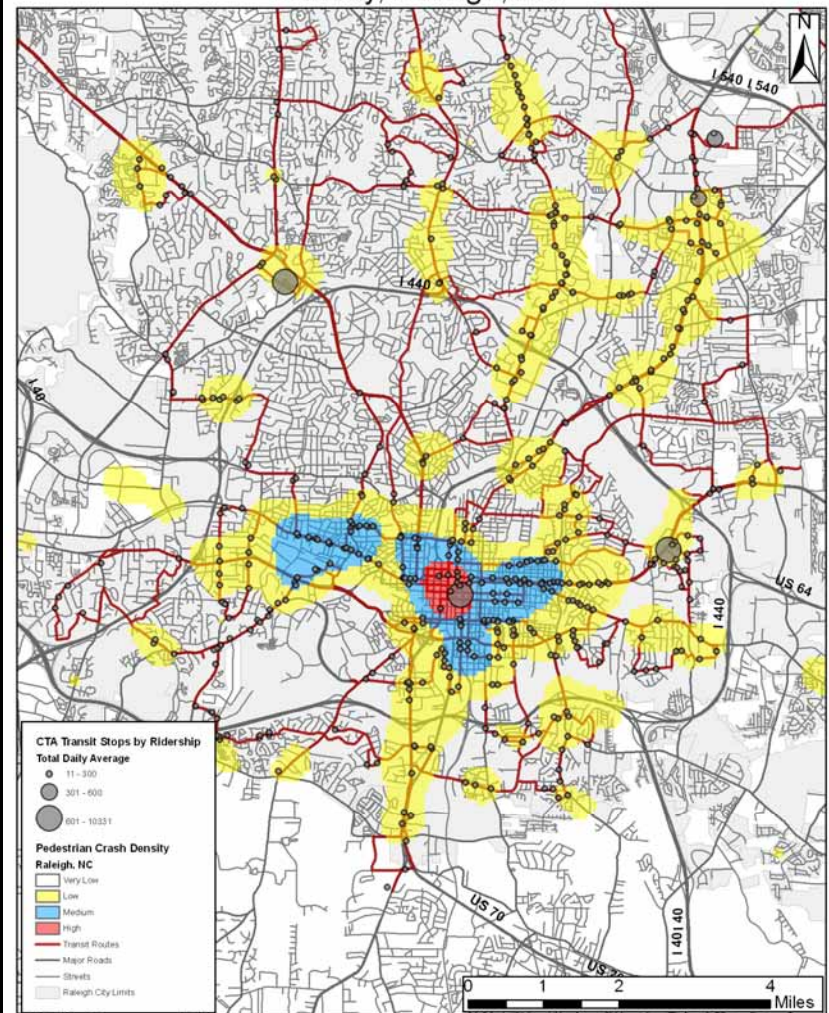
- Weekdays: 76%
- 3:00 - 9:00 PM: 41%
- Fall/Back to School months



Key Trends: Where

- Parking lots
- Downtown intersections
- Near transit

Boardings and Alightings with Pedestrian Crash Density, Raleigh, NC



Targeted Behaviors


- Yielding
 - Crossings
 - Driveways
 - When turning
- Attentiveness
 - Parking lots
 - Intersections
 - Around buses



Baseline Yield Rates

	Crossings Performed	# of Cars Observed	# Yielding	Yield Rate
Durham	900	3,052	493	22%
Anderson @ Yearby	150	350	71	20%
Fayetteville @ Pekoe	150	419	62	15%
Gregson @ Lamond	150	1143	15	1%
Main @ Brightleaf	150	400	98	25%
Riddle @ Tobacco	150	401	101	27%
University @ Chapel	150	339	146	42%
Raleigh	870	2,323	344	19%
Blount btw Hargett and Martin	150	599	81	39%
Martin @ Bloodworth	150	260	33	13%
Martin @ State St	146	203	20	10%
South btw Salis. and Wilmington	124	212	39	17%
Wilmington @ the Capitol	150	569	58	11%
Wilmington btw Hargett and Martin	150	480	113	24%
Grand Total	1,770	5,375	837	20%

Broad Outreach Elements

- 15-sec radio PSAs 
 - 1,192 total airs in August on 9 stations (Spanish and English)
 - Peak commute times
 - 61% heard message 7 times
- Earned media: 15+ TV/news stories
- Distribution through community centers and university events



Point of Choice Elements

- Bus ads
 - 4 major bus lines
 - 31 “external” ads
 - 365 “internal” ads on 270 buses
- Five key safety messages for peds & drivers



Point of Choice Elements

- Gas station ads
 - 42 gas stations in high-crash corridors



Social Norms Elements

- Aim at improving “culture” of driving
- Leveraged Facebook and Twitter



Institutional Capacity

- Training for Law Enforcement
 - 45 officers from 11 agencies
- Letters to District Judges/DAs
- Brochure on laws and safety tips
- Operations plans



Officer Training Results



FACTS/KNOWLEDGE	Before % Correct	After % Correct	Difference
Average Score	59%	84%	+25%
Minimum Score	25%	63%	+38%
Maximum Score	88%	100%	+13%

ATTITUDE/BELIEF (1=Disagree; 6=Agree)	Before Average	After Average	Difference
I am familiar with the yielding laws	3.79	5.12	+1.33
I have many resources to enforce laws	3.98	4.76	+0.78
I can help prevent pedestrian crashes	4.70	5.39	+0.69
I intend to enforce pedestrian safety laws in the next 3 months	4.79	5.34	+0.55

Enforcement Operations Documented

Location	# Events	# Officers	# Hours	# Brochures	Oral Warnings	Written Warnings	Citations
Raleigh	4	12	8+	100+	38	43	6
Durham	3	7	4+	2,000+	4	4	15
Duke	6	3	6	2,100+	91	0	0
Carborro	14	N/A	N/A	N/A	0	18	62
Chapel Hill	1	N/A	N/A	N/A	136	0	40
Total	31	26+	54+	4,200+	275	72	124

Officer Feedback

- Sargent Massengill, Durham PD, reported on 10/9/12: “The unit was approached by several pedestrians and citizens thanking officers for [their] efforts.”
- Officer Glen Sorrell, Raleigh PD, reported on 10/18/12: “[We received] positive feedback/gratitude from peds using the crosswalk during the enforcement effort, including Wake County District Court Judge (Ned Mangum).”
- Durham PD: all citations have (thus far) been upheld in court
- Carrboro PD: have worked with DA to make sure enforcement protocols can be upheld in court

Community Feedback

- “It's an important issue, so I'm glad it's being addressed in such a visible way!”
- “Very favorable and long needed.”
- “Good start, not NEARLY enough or sustained enforcement.”
- “I think the campaign is a good thing, but I don't think it will be effective until city officials and law enforcement are also involved.”
- “Didn't generate a lot of buzz.”
- “Not enough enforcement.”

National Recognition



David Strickland, NHTSA's chief administrator, visits Durham PD Chief Lopez and other Durham, NCDOT, and HSRC staff working on the Watch for Me effort in 2012


Participating Municipalities—Year 2

- Apex
- Carrboro
- Cary
- Chapel Hill
- Durham
- Fuquay Varina
- Knightdale
- Morrisville
- Raleigh
- Wake Forest

Participating Universities—Year 2

1. Duke University
2. Durham Technical Community College
3. North Carolina Central University
4. North Carolina State University
5. St. Augustine's University
6. University of North Carolina
7. Wake Technical Community College
8. William Peace University

External Bus Ads—Year 2



WATCH
FOR ME — NC

Yield to people in crosswalks.
It's the law.

WatchForMeNC.org



WATCH
FOR ME — NC

Make room for bikes.

WatchForMeNC.org



Spanish Materials—Year 2



**Seda el paso a las personas
en el paso de peatones.**

Es la ley.

WatchForMeNC.org



**Deje espacio para las
bicicletas.**

WatchForMeNC.org



Pedestrian Posters—Year 2

WATCH FOR ME - NC Tips for Being a **Safe Pedestrian**



Be Bright at Night



**Cross Safely When
Exiting the Bus**



Walk Facing Traffic



**Watch for
Turning Cars**



**Pull the Plug and
Pay Attention**



**Be Careful
in Parking Lots**

WatchForMeNC.org



WATCH FOR ME - NC Consejos para ser un **peatón seguro**



**Utilice luces
en la noche**



**Cruce con seguridad
al salir del autobús.**



**Camine en sentido
contrario al tráfico**



**Este atento
a los vehículos
que cruzan**



**Desconéctese y
preste atención**



**Sea cuidadoso
en los
estacionamientos**

WatchForMeNC.org



Bicycle Posters—Year 2



Tips for Being a **Safe Cyclist**



**Obey Traffic
Signals & Signs**



**Look Before
Entering Traffic &
Changing Lanes**



Ride with Traffic



Use Hand Signals

Remember to signal with the left arm.



left



stop

right



Be Bright at Night



Wear a Helmet

WatchForMeNC.org



Consejos para ser un **ciclista seguro**



**Obedezca las
señales
de tránsito**



**Mire antes de
entrar en el tráfico
y cambiar de carril**



**Viaje en el
mismo sentido
del tráfico**



izquierda



pare



derecha

**Utilice sus manos
para hacer señales**

*Recuerda que debe hacer
las señales con la mano izquierda.*



**Utilice luces
en la noche**



Use el casco

WatchForMeNC.org



Bumper Stickers—Year 2

**I brake for
people.**



Original concept courtesy of the City of Portland and NWTA.



I  k for bikes.



Keys to Success

- Need good data to “make the case”
- Don’t reinvent the wheel
- Partner coordination
 - Idea generation
 - Campaign delivery
- Funding and support
 - NHTSA, DOT, MPOs, GHSP, and others



For More Information

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