

Stroke Awareness Impact of a Multi-Media Campaign

Deborah Spicer, RD, MPH; Tiana Howland, RN; Barbara Dennison, MD; Dayna Maniccia MS; Janine Jurkowski, PhD

New York State Department of Health & the University at Albany School of Public Health

I. Background

- Coverdell Stroke registries (4 States)
- 45% of stroke patients had documented symptom onset time
- 48% of those with documented time arrived within 2 hours
- Only 22% of all stroke patients arrived within 2 hours**
- 53% arrived by ambulance
- Need to increase % arriving within 2 hours and % arriving by ambulance

II. Campaign Development

- Focus Groups
 - 4 focus groups with adults in Capital Region (May-June, 2006)
 - 2 with African Americans
 - 2 with mixed audience
- Messages
 - Used F-A-S-T mnemonic
 - Key messages repeated in all TV ads:
 - "call 9-1-1 within 1 hour of beginning of any symptom"
 - New Treatment is available
 - Symptoms are often not painful
 - Why it is better to arrive by ambulance
- Media
 - TV- 30 sec. spots
 - Radio - 60 sec. spot
 - Transit- bus shelters, outside and inside buses
 - Print Material (table tents, pharmacy cards, & magnets)

III. Results

- Telephone survey of adults >30 yrs in the Capital Region and control community (Orange County)
- Get With the Guidelines data from 5 Designated Stroke Center Hospitals (de-identified)

Duration and Intensity

	Duration	TV		Radio	
		Total times aired	Times Per wk	Total times aired	Times Per wk
Phase 1 (Oct – Dec, 06)	12 wks	123	10	(none)	
Phase 2 - Intense (Jan-Feb, 07)	5 wks	1558	311	509 (2 wks)	255
Phase 3 (Mar-June, 07)	16 wks	614	38	1,557 (6 wks)	260

Exposure to Campaign

	Control			Intervention			P-value
	Pre-	Post-	change	Pre-	Post-	change	
TV ad	47.9	55.5	+7.6	49.0	80.2	+31.2	<.001
Radio*		33.7			43.4		
Bus	6.1	7.1	+0.9	8.5	14.7	+6.1	.03
Any ad	45.2	59.1	+13.9	48.1	82.1	+34.1	<.001

* Baseline survey did not ask about exposure to radio ads

Exposure to Campaign

	Control			Intervention		
	Pre	Post	Change	Pre	Post	Change
"a lot" of TV ads	13.2	15.5	+2.3	9.0	40.1	+31.1
Message call 9-1-1	39.5	46.5	+7.0	42.9	77.1	+34.2

Percent who would call 9-1-1 for self

	Control			Intervention			P-value
	Pre	Post	Change	Pre	Post	Change	
Speech	54.7	59.3	+4.6	54.3	71.3	+17.1	.002
Vision	24.7	24.1	-0.6	22.7	31.3	+8.5	.01
Arm Weakness	26.5	27.5	+1.0	30.3	40.2	+9.9	.02
<i>Pain between shoulders*</i>	19.2	16.1	-3.2	18.3	17.7	-0.6	NS
<i>Temp 101°*</i>	11.8	11.7	-0.1	12.8	12.5	-0.3	NS

* Decay Symptoms

Percent who would call 9-1-1 for others

	Control			Intervention			P-value
	Pre	Post	Change	Pre	Post	Change	
Speech	61.9	67.4	+5.5	67.5	77.0	+9.5	NS
Vision	30.8	28.1	-2.7	29.0	34.4	+5.3	.03
Face	64.3	65.3	+0.9	64.9	77.9	+13.0	.002
Arm Weakness	47.3	44.9	-2.4	47.2	53.5	+6.3	.04
<i>Pain between Shoulders*</i>	19.2	16.1	-3.2	18.3	17.1	-0.6	NS
<i>Temp 101°*</i>	12.8	14.3	1.5	14.4	13.6	-0.7	NS

* Decay Symptoms

Pre Hospital Delay

	Pre-	Post-	P-value
Arrive <= 2 hours of Symptom onset, with Exact time recorded	42.7%	50.3%	.04
Arrive <= 2 hours among those with exact time + those with estimated (using mid-point of range)	35.6%	42.6%	.02
Exact time of symptom onset reported	58.0%	50.4%	<.01

Arrival Mode

	Pre		Post		Change
	%	N	%	N	
Arrival by EMS from scene	51.6%	377	58.5%	437	+6.9
Private Transport	29.3%	214	24.8%	185	-4.5

IV. Conclusion

- Intensive mass media campaigns can increase intent to call 9-1-1 for symptoms of possible stroke
- Formative research is important for crafting messages
- Need for consistent messages