

Effective Community Education Programs with Evaluation

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are Behavior /knowledge issues related to Stroke in the community context

- **Prevention**

- Primary and Secondary Risk Factor reduction for stroke

- Adherence
- Modification of behavior

- **Preparedness**

- Acute stroke treatment
- Emergent response to stroke symptoms

Successful intervention strategies for risk reduction

• Hypertension

- **CHIP** – focused on **individual counseling** along with **structural changes** in clinics

[Stevens. Annals of Internal Medicine 2001;134:1-11]

- **TOMHS** – continued reduction in BP with long term **counseling** for **nutritional and physical activity needs**. [Elmer, P.G. J Prev Med 1995;24: 378-388]

- **Premier Clinical Trial** – **reinforced support and counseling** [JAMA. 2003;289:2083-2093]

• Diabetes


- incorporated **OBJECTIVES** (walking) into **daily routine**
- Social support - **Family support** predicted self-adherence
- Face to face **interactive activities** and group settings

[Tudor-Locke, CM, The Diabetes Educator, 2001;27: 85-93]

Key Community Educational Programs incorporating Preparedness


- **Stroke Heroes Act Fast [Mass DOH]**
- **Beauty Shop [Kleindorfer. Stroke 2007]**
- **Hip-Hop' Stroke “ A Stroke Educational Program for Elementary School Children Living in a High-Risk Community” [Williams and Noble. Stroke 2008]**
- **Stroke Awareness Impact of a Multi-Media Campaign [Spicer, Stroke 2009]**
- **SWIFT: Stroke Warning Information and Faster Treatment [Boden-Albala, Contemporary Clinical Trials 2009]**

Components of Successful Community Education Programs



Get the **who**, **what**, **where**, **why** & **NOW**

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Who is our community?

High Stroke Risk Populations -**SWIFT**
Families of High Risk populations
Future generations – **Hip Hop**
Minority/ underserved Groups- **Beauty Shop**
Everyone -**DOH**

How do we define our community?

Geography
Disease type
Organizations

WHAT DO WE WANT TO ACCOMPLISH?

NINDS 5-year strategic plan on Minority Health Disparities:

“To further disseminate information on stroke, including preventative measures, warning signs, and the urgency of immediate care to minority populations.”

NINDS Stroke Disparities Advisory Panel Meeting on Acute Stroke Care:

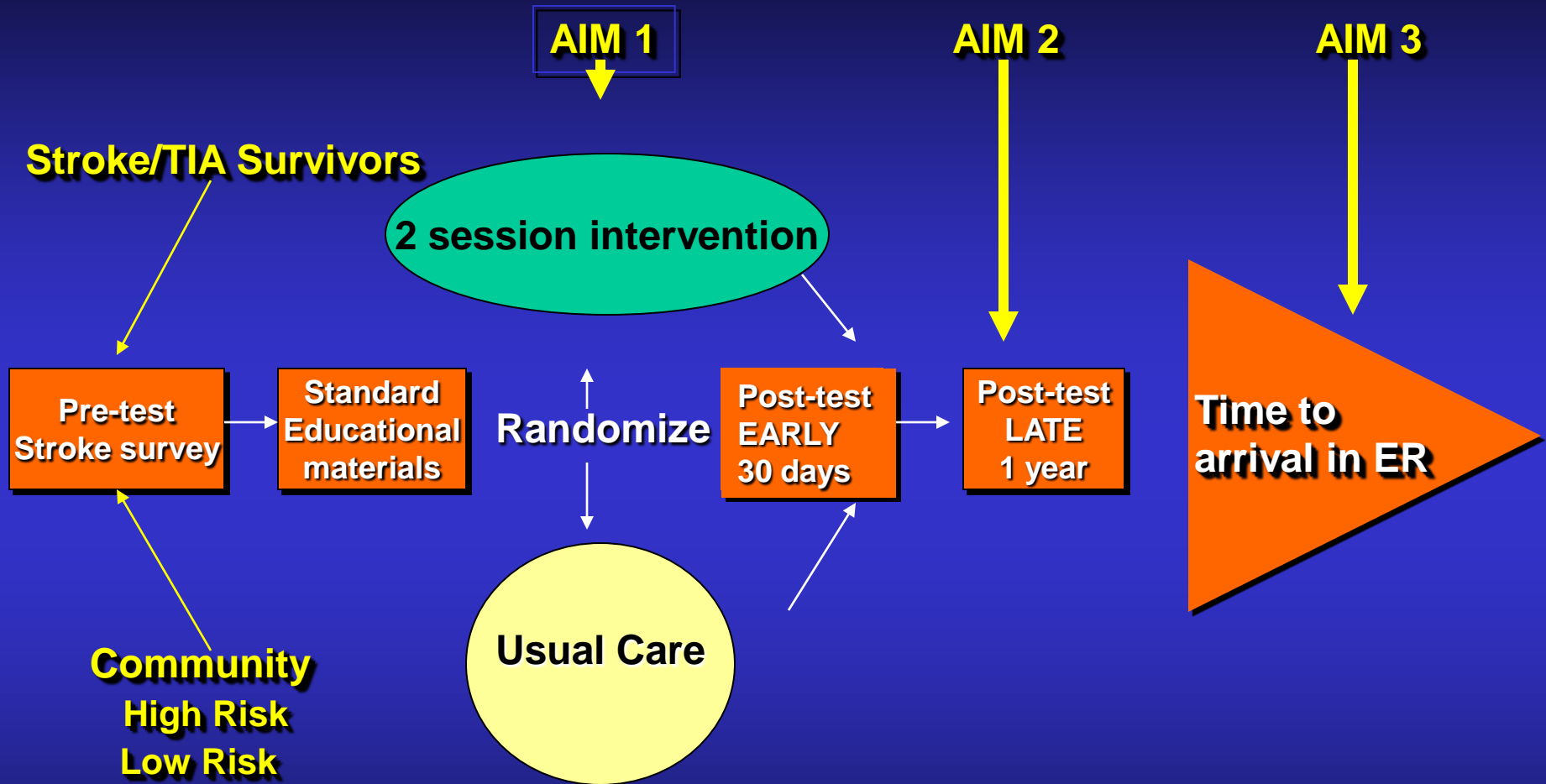
“Targeted interventions must be evaluated objectively and carefully to determine whether they have impact on access....These studies must be performed with the same kind of intellectual and scientific rigor as have traditional efficacy studies.”

Goals of an Interactive Educational Intervention

- **Facilitate dialogue about stroke**
- **Recall stroke warning signs**
- **Learn how to Call 911**
- **Navigate the emergency room**

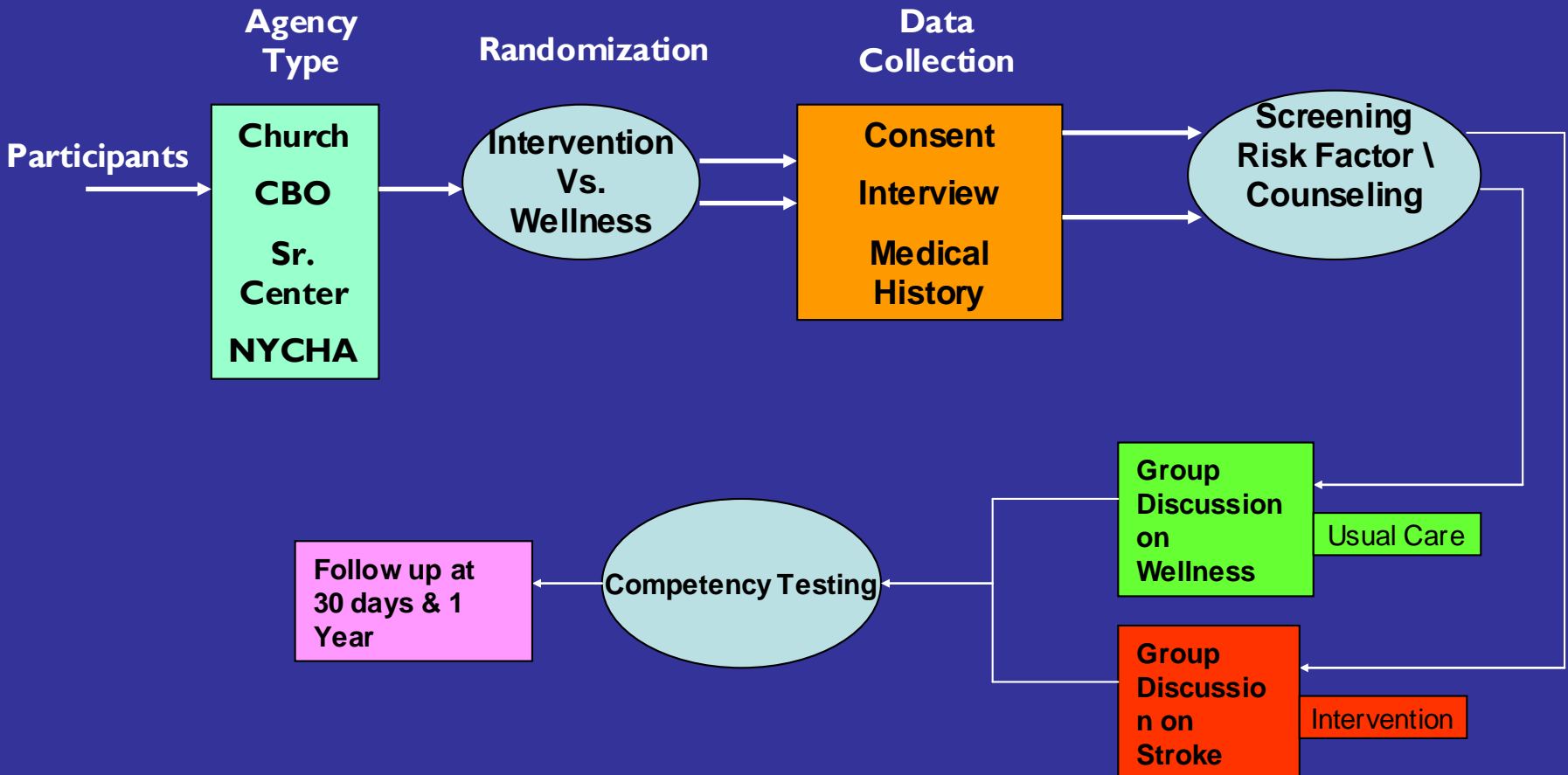
“I think I am having a stroke
I have numbness in my right arm
Am I eligible for t-PA?”

SWIFT DESIGN



WHERE

Community Program Diagram



Engaging in conversation with the community for culturally sensitive content

- **Training**
 - To inform about the issues
- **Curriculum**
 - To focus a dialogue
- **Collaborative leadership models**
 - Sharing and use of many resources
- **Practice an ethic of hospitality, patience, and reconciliation**
- **Role models**
 - Demonstrate how and why issue is valuable

What does community want



How do we test success of a program?

Testing knowledge

Testing behavioral change

Evaluation

- **What type**
 - Efficacy
 - Effectiveness
 - Dissemination

- **The Art of Follow-up**
 - How will you follow-up
 - What is your denominator?
 - Are those not follow-up different from those follow-up

How do we measure the success of our intervention?

- **What do we choose as outcomes?**
 - **Knowledge change**
 - **Competency Assessment**
 - **Medical Outcomes**
 - **Behavioral Change**
 - Proxy for change
 - True change

Knowledge

Multiple Choice Survey Questions

- **Where in the body** does a stroke occur?
- **Which of these symptoms** may be warning signs that a person is having a stroke?
- **Which of the following conditions** may increase your risk of stroke?
- **Which** of the following behaviors have been shown to reduce the risk of stroke?

Theoretical behavior

Part 2. Hypothetical Questions

- You and your friend are talking about the weather, when suddenly your friend's speech changes. Your friend's words become garbled and you can't understand what your friend is saying. What would you do?
- You are walking down the block and all of a sudden you feel weak on the left side of your body. You sit down on the curb, and realize you have trouble moving your left arm and leg. What do you do?
- Your sister called you to take her to the hospital because she can't move her right arm. When she speaks you notice she is slurring her words. It will take you 20 minutes to reach her apartment. What should you do?

Competency

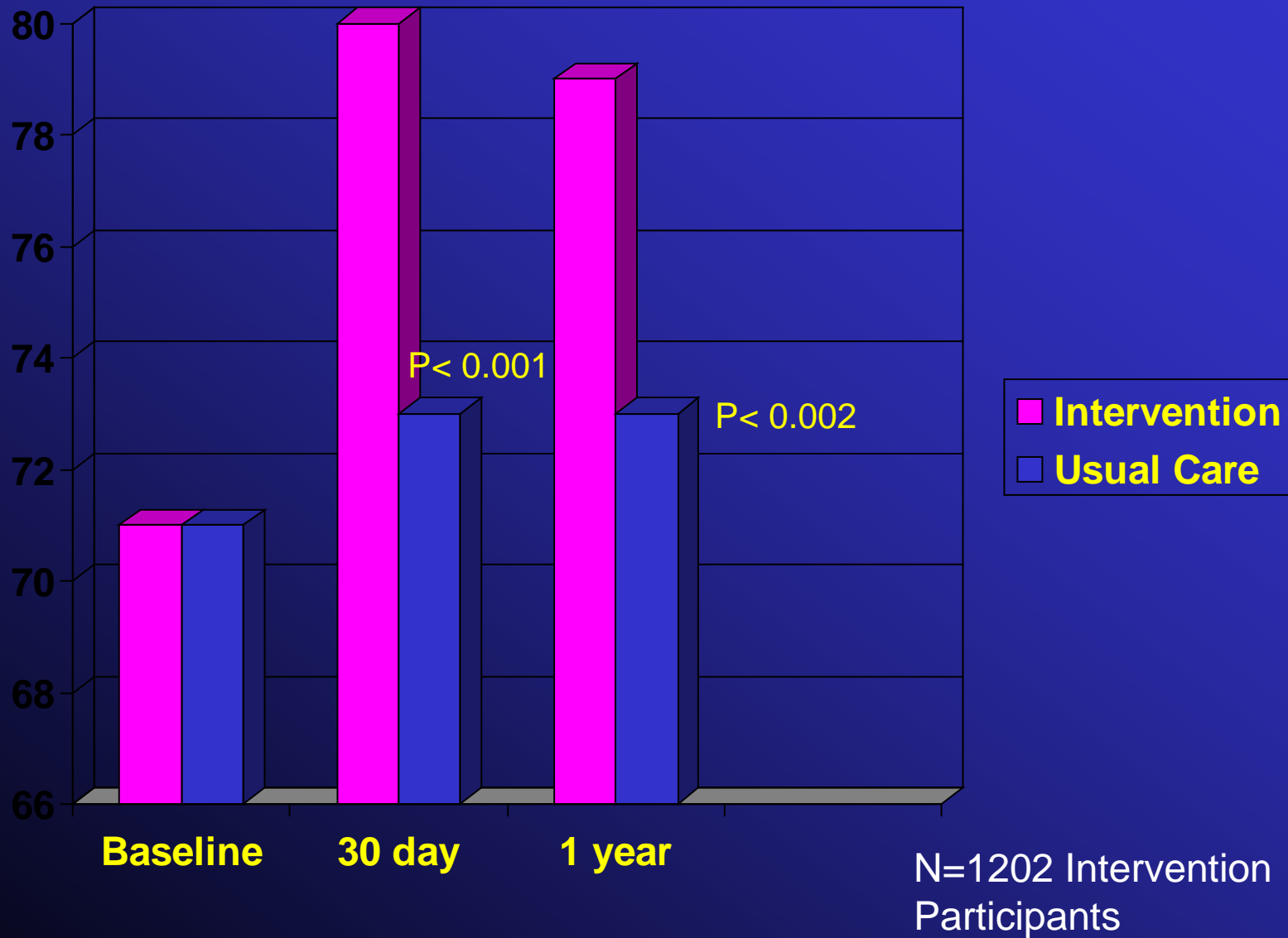
- **Identify a skill set you want participants to achieve**
- **Test them on the skill set**
- **Behavioral capability**

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AIMS of SWIFT

- To evaluate the efficacy of the SWIFT intervention versus standard care (educational handouts) by comparing 30 day and 1 year stroke knowledge/behavior retention among stroke/TIA survivors
- To compare the prevalence of early time to arrival (≤ 2 hours) after stroke in the SWIFT intervention group versus usual care among stroke/TIA survivors.

Change in Pre-Post Testing of Stroke Knowledge among Intervention Group



SWIFT Behavioral Outcomes

- 214 outcome event evenly distributed across two groups over 4 years in 1200 people
- We lost 2 people to follow-up
- Intervention group arrived significantly earlier for recurrent event
 - mean 2.4 hours versus 9.2 hours ($p < 0.01$)

Summary

- **Design programs in a rigorous manner**
- **Include the evaluation component from the beginning**
- **Be realistic about you community and your intent**
- **Debrief after sessions and write it all down**
- **Report this all back to us.....**
 - **Your success stories reflect the progress we make in stroke preparedness and prevention**