Using a Quality Improvement Framework to Address Stroke Disparities

EVIDENCE, SOLUTIONS, OPPORTUNITIES

Janet Freburger, PT, PhD
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• Define and distinguish between health and healthcare disparities
• Briefly review the evidence on stroke-related disparities
  • Focus on rehabilitation care
• Discuss factors that contribute to disparities
• Discuss challenges/opportunities to address disparities
  • Using a quality improvement framework to effect change
• Questions/Discussion
WHAT ARE HEALTH AND HEALTHCARE DISPARITIES?

• Differences in **HEALTH** and **HEALTHCARE** between groups & populations.

• **Disparities in Health**: a higher burden of illness, injury, mortality experienced by one group relative to another.

• **Disparities in Healthcare**: difference between groups in access to, use of, and quality of care.

  • Typically refer to differences that cannot be explained by variation in healthcare needs.
POPULATIONS

- **RACE:** American Indian/Alaska Native; Black/African American; Asian Americans; Native Hawaiians & other Pacific Islanders
- **SEX:** Male, Female
- **AGE**
- **ETHNICITY:** Hispanic or Latino
- **GENDER/SEXUAL ORIENTATION**
- **SOCIOECONOMIC STATUS:** Income, Education
- **DISABILITY**
DISPARITIES RELATED TO STROKE

RISK FACTORS

ACUTE CARE → POST-ACUTE CARE → TERTIARY PREVENTION

OUTCOMES

• DEATH
• DEGREE OF DISABILITY
• DEGREE OF RECOVERY

Disparities

• Access
• Amount
• Quality

Disparities

1° & 2° PREVENTION
• Incidence and prevalence of stroke greater among African-Americans, Hispanics, American Indians/Alaskan Natives.

• Recurrent stroke risk highest in African-Americans.

• Women face greater rates of stroke, particularly at older ages.
RISK FACTORS & PRIMARY PREVENTION

• African-Americans have a higher prevalence of risk factors: hypertension, diabetes, hypercholesterolemia, smoking, physical inactivity.

• Racial-ethnic disparities in knowledge of stroke warning signs.

• Racial disparities in smoking cessation counseling.

• Sex disparities in statin use (equivocal findings).
DISPARITIES IN OUTCOMES

• African-Americans have greater impairment after stroke, poorer recovery.

• Racial-ethnic minorities in the U.S. have higher rates of stroke mortality.

• Women have poorer outcomes following stroke – experience more severe strokes, have longer hospital stays, more disability, more death.
• Racial and urban/rural disparities in access to and timing of hyper-acute care (thrombolysis).
• Racial disparities in time to diagnostic testing.
• Race-Sex disparities in medication use for secondary prevention.
• Racial disparities in access to a neurologist.
• Regional disparities in the quality of care.
ORIGINAL RESEARCH

Physical and Occupational Therapy From the Acute to Community Setting After Stroke: Predictors of Use, Continuity of Care, and Timeliness of Care

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Figure 1 - CONCEPTUAL MODEL

*the intersection of sociodemographic and clinical factors reflects the fact that it is sometimes difficult to disentangle sociodemographic factors (e.g., age) from need factors
**Acute Care**

- Hispanics and individuals of lower socioeconomic status less likely to receive PT/OT.

- Patients seen in metropolitan hospitals more likely to receive PT/OT.
DISPARITIES IN REHABILITATION CARE (Our Findings)

Home Health

- Patients who were African-American, dual eligible, and living in poorer counties more likely to receive home care.

- African-Americans and Hispanics less likely to receive early home health care.
**Outpatient Care**

- Patients who were African-American or dual eligible were less likely to receive outpatient care.
- Patients who were African-American or dual eligible less likely to receive early outpatient care.
DISPARITIES IN REHABILITATION CARE (Our Findings)

**Continuity of Care**

- From hospital to home health
  - Patients who were African-American or dual eligible were more likely to have continuity of care from hospital to home health.

- From hospital to outpatient
  - Patients who were African-American or dual eligible were less likely to have continuity of care
  - Patients treated at hospitals with a greater proportion of Medicaid patients were less likely to have continuity of care.
What Contributes to Stroke Disparities?

<table>
<thead>
<tr>
<th>DOMAINS OF INFLUENCE</th>
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<tbody>
<tr>
<td>BIOLOGICAL</td>
<td>Biological Vulnerability (hypertension)</td>
</tr>
<tr>
<td>BEHAVIORAL</td>
<td>Health Behaviors (smoking, inactivity, diet)</td>
</tr>
<tr>
<td>PHYSICAL ENVIRONMENT</td>
<td>Food deserts, lack of green space, sidewalks, etc.</td>
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<tr>
<td>SOCIOCULTURAL ENVIRONMENT</td>
<td>Sociodemographics, Response to discrimination, insurance coverage</td>
</tr>
<tr>
<td>HEALTH CARE SYSTEM</td>
<td>Health literacy, treatment preferences, provider behavior, availability of services</td>
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## What Contributes to Healthcare Disparities?

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>Contributors</th>
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<tbody>
<tr>
<td>Patient-level</td>
<td>Patient Choice; Health literacy; Language barriers; Transportation Challenges; Insurance Coverage</td>
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<tr>
<td>Provider-level</td>
<td>Prejudice, stereotyping, bias (conscious and unconscious)</td>
</tr>
<tr>
<td>Healthcare System Level</td>
<td>Differential availability of providers; Financial incentives of current payment structures</td>
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Reducing Disparities

• Complex problem
• Daunting task
• Can be addressed at many levels

• What can you do as a provider, health care system?
A Roadmap to Reducing Disparities in Care *

1) Recognize disparities and commit to reducing them
   • Collect data on race, ethnicity, language, etc.
   • Stratify outcomes data by these variables
   • Provide disparities training for staff

2) Use a quality improvement framework (structure) to address disparities
   • Create a culture of quality
   • Designate a QI team
   • Select a local champion, obtain leadership support

3) Make equity an integral part of QI efforts – Cross-cutting dimension of quality

*Chin et al. 2012
A Roadmap to Reducing Disparities in Care *

4) Determine potential root causes of disparities
   • Learn from the evidence, peers
   • Consider the context (care delivery in home versus outpatient setting)

5) Use evidence-based strategies
   • Multifactorial, team-based care delivery
   • Culturally targeted
   • Patient-family involvement
   • Community involvement

*Chin et al. 2012
BASIC STRATEGIES

1) Education: provider training, patient education in self-management; family education

2) Engage community: community-based resources to continue care across the continuum; resource for equipment

3) Restructure care team – patient navigator, liason, targeting vulnerable patients

4) Improve communication, health literacy

5) Cultural targeting – customize content, approach, messaging of intervention

6) Financial support – vouchers for care, reduced out-of-pocket expenses
5) Implement, Evaluate, Adjust

**Black-White Differences in Therapy Use**

- **Time to first Visit (days)**
- **Number of visits in first 30 days (n)**
- **Proportion of visits with OT & PT (%)**

**QI efforts can**
- improve for both groups equally, disparity remains
- improve for White and not Black, disparity increases
- Improve for Black more than White, disparity decreases

*Chin et al. 2012*
A Roadmap to Reducing Disparities in Care *

6) Sustain the intervention
   • Needs to be financially viable
   • Need a business case
     • Integrated delivery systems versus sole practitioners, practices
   • Institutionalized
     • Early champion-led initiatives cannot be sustained

7) Recognize that change takes time

*Chin et al. 2012