Health Report
Special Olympics North Carolina

Dear Friends of Special Olympics North Carolina,

What if you could help thousands of people throughout North Carolina who suffer needlessly from chronic pain and disease, vision problems, hearing loss, shortened life span, and other health conditions? Through Special Olympics health programs, that’s what we aim to do every day for people with intellectual disabilities. This health report, which is the first of its kind for Special Olympics North Carolina, provides an overview of our health and wellness initiatives over the past decade.

Why would Special Olympics become more proactively involved in improving the health of its athletes? Many answers exist but chief among them is that we’re finding many health problems that must be addressed in order for our athletes to take full advantage of the Special Olympics mission of providing sports training and competition to people with intellectual disabilities.

Globally, more than 1.6 million free health examinations have been conducted in more than 130 countries through the Special Olympics Healthy Athletes® program which offers health services and information to athletes in dire need. In the process, Special Olympics has become the largest global public health organization dedicated to serving people with intellectual disabilities.

We have been doing our part in North Carolina but we know we can do more. That’s why through support from Special Olympics International, made possible by the Golisano Foundation, we hired a full time Health Director in August 2016 to lead our health and wellness initiatives. Having a person with a public health background will not only strengthen our strategic approach to health and wellness, but it will allow SONC to join an increasing number of Special Olympics Programs around the world addressing these needs through dedicated staff and partnerships.

Special Olympics North Carolina is also fortunate to have support from many health-based partners, most of which are listed in the back of this report. Over the years, Special Olympics health programs have improved the health of our athletes, and in many cases, profoundly changed--or saved--their lives. We look forward to making a significant impact in the years to come so our athletes can live healthy and full lives.

With healthy regards,

Keith Fishburne
President/CEO
Special Olympics North Carolina
# Table of Contents

**Special Olympics North Carolina Overview**.................................................................................. 3
    Global Comparison .......................................................................................................................... 4
    Athlete Health Summary ................................................................................................................. 5

**Fit Feet**.......................................................................................................................................... 6
    Gait Abnormalities .......................................................................................................................... 6
    Nail & Skin Abnormalities .............................................................................................................. 6
    Bone Deformities ............................................................................................................................ 6

**FUNfitness**.................................................................................................................................... 7
    Weekly Physical Activity .................................................................................................................. 7
    Referral Recommendations ............................................................................................................ 7

**Health Promotion**....................................................................................................................... 8
    Body Mass Index ............................................................................................................................. 8
    Referral Recommendations ............................................................................................................ 8
    Hypertension ................................................................................................................................... 8

**Healthy Hearing** ......................................................................................................................... 9
    Evaluation Results ............................................................................................................................ 9
    Referral Recommendations ............................................................................................................ 9
    Hearing Loss ................................................................................................................................... 9

**Opening Eyes** ............................................................................................................................. 10
    Screening Results ........................................................................................................................... 10
    Referral Recommendations ............................................................................................................ 10

**Special Smiles** ............................................................................................................................ 11
    Tooth Decay .................................................................................................................................... 11
    Gum Disease ..................................................................................................................................... 11
    Referral Recommendations ............................................................................................................ 11

**Strong Minds** ............................................................................................................................. 12
    Impact .............................................................................................................................................. 12

**MedFest** ......................................................................................................................................... 13
    Participating Counties ...................................................................................................................... 13
    Volunteers ........................................................................................................................................ 13

**Health & Wellness** ....................................................................................................................... 14
### Special Smiles total

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<td>Missing Teeth</td>
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<td>Gingival Signs</td>
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<td>Urgent Dental Referral</td>
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### Fit Feet total

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<td>%</td>
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<td>Gait Abnormalities</td>
<td>50.1</td>
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<td>Bone Deformation</td>
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<td>Skin/Nail Condition</td>
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### Opening Eyes total

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<td>%</td>
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<td>Never Had an Eye Exam</td>
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<td>4.7</td>
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<td>Eye Disease</td>
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### Healthy Hearing total

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<td>%</td>
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<td>41165</td>
<td>39315</td>
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<td>Permanent Hearing Loss</td>
<td>7.4</td>
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<tr>
<td>Blocked or Partially Blocked Ear Canal</td>
<td>40.3</td>
<td>41.8</td>
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<td>Failed PureTone Hearing Test</td>
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### Health Promotion total

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<td>Low Bone Density (adults)</td>
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<td>Obese (youth)</td>
<td>16.0</td>
<td>31.4</td>
<td>32.0</td>
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<tr>
<td>Overweight (youth)</td>
<td>15.3</td>
<td>17.5</td>
<td>17.7</td>
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<td>Obese (adults)</td>
<td>30.9</td>
<td>44.6</td>
<td>45.4</td>
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<td>Overweight (adults)</td>
<td>28.3</td>
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<td>29.2</td>
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<tr>
<td>Underweight (adults)</td>
<td>5.0</td>
<td>2.6</td>
<td>2.4</td>
<td>2.8</td>
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<tr>
<td>Use Tobacco Products</td>
<td>6.4</td>
<td>5.1</td>
<td>5.1</td>
<td>5.7</td>
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<tr>
<td>Exposure to Second Hand Smoke</td>
<td>37.9</td>
<td>36.2</td>
<td>36.4</td>
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### FUNfitness total

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<th>North Carolina</th>
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<td>%</td>
<td>80210</td>
<td>36935</td>
<td>34915</td>
<td>1094</td>
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<td>Flexibility Problems Identified</td>
<td>90.7</td>
<td>95.1</td>
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<tr>
<td>Strength Problems Identified</td>
<td>81.9</td>
<td>82.2</td>
<td>82.8</td>
<td>79.1</td>
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<td>Balance Problems Identified</td>
<td>88.5</td>
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<td>92.9</td>
<td>95.6</td>
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<td>Exercise Frequency</td>
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<td>3 or More Days Most Weeks</td>
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<td>65.9</td>
<td>65.7</td>
<td>62.9</td>
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<tr>
<td>Less Than 3 Days Most Weeks</td>
<td>38.5</td>
<td>29.6</td>
<td>29.7</td>
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<tr>
<td>No Regular Exercise Program</td>
<td>7.0</td>
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<td>4.6</td>
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Global Comparison

2007-2016
Athlete Health Summary

20 trained Special Olympics North Carolina Clinical Directors

574 Total Health Volunteers

1,518 Screenings conducted in 8 Healthy Athletes disciplines

Special Olympics Fit Feet
97 Athletes Screened
Out of the 97 screened:
- 93% have gait abnormalities
- 80% have a skin or nail abnormality

Special Olympics Health Promotion
158 Athletes Screened
Out of the 158 screened:
- 65% were obese or morbidly obese
- 29% were overweight

Special Olympics FUNfitness
180 Athletes Screened
Out of the 180 screened:
- 53% engage in physical activity 3-7 times per week
- 39% were recommended a referral for physical therapy

Special Olympics Healthy Hearing
110 Athletes Screened
Out of the 110 screened:
- 41% failed the basic exam and
- 26% were given a higher level test on-site

Special Olympics Strong Minds
127 Athletes Screened
Out of the 127 screened:
- 100% stated that they will use one or more of the strategies learned to help relax before, during and after competitions

Special Olympics Lions Clubs International Opening Eyes
143 Athletes Screened
Out of the 143 screened:
- 23% were found to have eye disease
- 24% were given prescription eyewear

Special Olympics Special Smiles
271 Athletes Screened
Out of the 271 screened:
- 47% had diseases of the gums
- 24% were fitted with a mouth guard

Special Olympics MedFest
432 Athletes Screened
Out of the 432 screened:
- 100% received physicals on site
- 9 local programs held MedFest events across the state
Special Olympics Fit Feet offers podiatric screenings to evaluate ankles, feet, lower extremity biomechanics, and proper shoe and sock gear.

1 Certified Clinical Director
Dr. Jennifer O’Donoghue
NCSU Sports Medicine

97 athletes screened at 1 state-level event

Gait Abnormalities
- 7% Have
- 93% Do not have

Nail and Skin Abnormalities
- 20% Have
- 80% Do not have

Bone Deformities
- 34% Have
- 66% Do not have

Out of the 97 athletes screened in Fit Feet, follow-up care was recommended for 11 athletes (11%) due to untreated infections, ulcers, warts, and persistent pain.

6 | www.sonc.net
Special Olympics FUNfitness provides free examinations to measure flexibility, strength, balance and aerobic fitness.

4 Certified Clinical Directors
- Dr. Jennifer Roberts, Physical Therapist
- Lindsay Gentz, Physical Therapist
- Dr. Michael Moran, Physical Therapist
- Victoria Tilley, SOI Global Clinical Advisor*

180 athletes screened at 2 state-level events

39.4% were given a referral for the following:

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>37.2%</td>
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<tr>
<td>Strength</td>
<td>33.3%</td>
</tr>
<tr>
<td>Balance</td>
<td>33.9%</td>
</tr>
<tr>
<td>Aerobic Fitness</td>
<td>10.6%</td>
</tr>
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</table>

*Special Olympics International
Health Promotion

Special Olympics Health Promotion focuses on healthy living, healthy lifestyle choices, and nation-specific health issues.

4 Certified Clinical Directors
Alice Lenihan, SOI Global Clinical Advisor*
Lauren Heilman, BSN, RN, Chapel Hill Pediatrics
Lizzie Cotton, BSN, RN, Duke University Hospital
Maggie Perkins, RD, LDN, Poe Center

158 athletes screened at 3 state-level events

Body Mass Index

- 64.6% Underweight (BMI <18.5)
- 29.1% Normal (BMI 19-24)
- 5.7% Overweight (BMI 25-29)
- 0.6% Obese (BMI >30)

27.8% of adults have hypertension

Follow-up care was indicated as necessary for 93.7% of athletes with a dangerously high BMI

*Special Olympics International
Healthy Hearing

Special Olympics Healthy Hearing provides free hearing examinations and follow-up recommendations.

2 Certified Clinical Directors
Dr. Leah Martin, Costco Hearing Center
Dr. William Hoole, UNC School of Medicine

110 athletes screened at 2 state-level events

Hearing Evaluations

- Pass: 40.9%
- Fail: 59.1%

9.1% of athletes have permanent hearing loss

Recommended Referrals

- Not Recommended Referral: 35.50%
- Recommended Referral: 9.10%

Audiological

Medical
Opening Eyes

Special Olympics – Lions Club International Opening Eyes provides free eye assessments, prescription eyewear, sunglasses and sports goggles.

1 Certified Clinical Director
Jason Minton, Minton Eye Care

143 athletes screened at
1 state-level event

24.4% of athletes were given prescription eyewear

21.8% of athletes had not had an eye exam in the last 3 years

10% of athletes were given a referral to an optometrist or ophthalmologist
Special Smiles

Special Olympics Special Smiles offers free dental screenings and comprehensive oral health care information.

2 Certified Clinical Directors
Dr. Christopher Cotterill, ECU School of Dental Medicine
Dr. Michael Milano, UNC School of Dentistry

271 athletes screened at 2 state-level events

Untreated Tooth Decay

- Have: 33%
- Do not have: 67%

Gum Disease

- Have: 47%
- Do not have: 53%

12.9% of athletes have oral pain due to injury, decay, disease, and more

24.4% of athletes were fitted with a mouth guard

37.2% of athletes were recommended for follow-up care
Strong Minds

Special Olympics Strong Minds helps athletes develop active strategies for maintaining emotional wellness under stress.

2 Certified Clinical Directors
Cole Bradham, Plus One Health Management
Jessica Burkhardt, Ling and Kerr Therapy Services

127 athletes screened at 1 state-level event

**IMPORTANCE AND IMPACT:** Strong Minds screenings found that a large percentage of Special Olympics athletes face significant stresses on a daily basis, but have access to only a few coping strategies.

- **12%** have no coping strategies
- **62%** mostly use avoidant strategies (e.g., not think about the stressor), which is associated with increased depression
- **26%** mostly use active strategies (e.g. doing something to help themselves to feel better), which is associated with increased well-being

100% of athletes stated that they will use one or more of the strategies learned to help relax before, during, and after competitions.
Special Olympics MedFest provides a free physical examination that all athletes need prior to participation.

<table>
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<tr>
<th>6</th>
<th>Certified Clinical Directors</th>
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<tbody>
<tr>
<td>432</td>
<td>athletes were provided free physicals at</td>
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<tr>
<td>9</td>
<td>local MedFest events</td>
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</table>

MedFest events were held in the following counties:

- Alleghany
- Forsyth
- Gaston
- Mecklenburg
- New Hanover
- Pender
- Watauga
- Wilkes
- Wilson

Over 134 healthcare volunteers from the following schools/organizations contributed:

- Carolinas Rehabilitation – Carolinas HealthCare System
- Edgecombe Community College
- UNC Wilmington
- Winston-Salem State University Community Health Nursing Program
- Alleghany Wellness Center Inc.
Health & Wellness Projects

With the help of the North Carolina GlaxoSmithKline Ribbon of Hope Grant, the four participating local programs were able to achieve the following:

76% of athletes categorized as obese or overweight improved their BMI

126 were provided free physical exams

**Wilkes County** partnered with the Wilkesboro YMCA to engage 20 athletes in the Healthy Athletes Challenge:
- 100% of athletes decreased their BMI
- 216 total pounds lost
- 453 miles walked, 421 hours on cardio equipment, 141 hours in Zumba classes, 513 miles cycled, and 253 hours in pool for Water Aerobics

**Watauga County** incorporated weekly Zumba, water aerobics, yoga and nutrition lessons for athletes into local program practices.
- 37 athletes from Watauga Opportunities Inc. participated in a pedometer challenge
- The 37 athletes walked nearly 12,000 miles in a 6 month period

**Alleghany County** partnered with the Alleghany Wellness Center to provide FREE gym memberships and weekly nutrition lessons to 18 athletes participating in the Healthy Athletes Challenge.

**Ashe County** reactivated the local Special Olympics program and partnered with the Ashe County Health Alliance
Health & Wellness Projects

With the help of the Cape Fear Memorial Foundation, a Special Olympics North Carolina health partner since 2007, three participating local programs were able to achieve the following during 2015:

**67%** of athletes categorized as obese or overweight improved their BMI

**277** were provided free physical exams

### Follow-Up Care
- New Hanover County partnered with Wilmington Health Associates & The Clinic for Special Children to conduct follow-up care for athletes from the MedFest events with infections and blood pressure concerns.

### Nutrition Education
- Brunswick County received coach and athlete nutrition education from The Poe Center for Health Education. Brunswick Community College provided exercise challenges and periodic weigh-ins.

### School Engagement
- Pender County had 6 schools participate in a month-long walking challenge:
  - 89 students participated
  - 27 million cumulative steps walked
Special Olympics North Carolina Health Partners

- Aesthetic Solutions
- Alleghany Wellness Center
- Ashe County Healthy Alliance
- Barton College Nursing Program
- Bayada Home Health
- Blue Cross and Blue Shield of North Carolina
- Brunswick Community College
- Campbell University Doctor of Physical Therapy
- Cape Fear Memorial Foundation
- Carolinas Healthcare System
- Chapel Hill Pediatrics
- Clinic for Special Children
- Duke University Doctor of Physical Therapy
- Duke University Hospital
- East Carolina University Dental School
- East Carolina University Doctor of Physical Therapy Program
- Edgecombe Community College
- Elon University Doctor of Physical Therapy Program
- Essilor
- Guilford Technical Community College Physical Therapist Assistant Program
- High Point Audiological Incorporated
- High Point Regional: UNC Health Care
- La Roche-Posay
- Lexington Medical Center
- Ling and Kerr Therapy Services
- Lions Club International
- Methodist University Doctor of Physical Therapy Program
- Minton Eye Care
- New Hanover Regional Medical Center
- NC Cooperative Extension
- NC GlaxoSmithKline Foundation
- NC State Sports Medicine
- Novant Health
- Piedmont Health
- Plus One Health Management
- Southeast Regional Advisory Council
- Surry Community College
- The Poe Center
- UNC Chapel Hill Dental School
- UNC Chapel Hill School of Audiology
- UNC Chapel Hill Doctor of Physical Therapy Program
- UNC Wilmington Nursing Program
- West Carolina University Doctor of Physical Therapy Program
- Wilmington Health Associates
- Winston YWCA
- Wingate University Doctor of Physical Therapy Program
- Winston Salem State University Doctor of Physical Therapy Program
- Winston-Salem Foundation
- YMCA Wilkesboro
- YMCA Winston-Salem