Diabetes Initiative of South Carolina
Surveillance Council
Friday, March 6, 2015
96 Jonathan Lucas Street, 816 Conference Room
Charleston, SC

11:00 am – 12:30 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Discussion Lead</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00</td>
<td>Welcome and Introductions, Approval of the Minutes</td>
<td>P. Arnold</td>
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<td>11:10</td>
<td>Surveillance Chair Update</td>
<td>P. Arnold</td>
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<td>11:20</td>
<td>SC Prevalence Ranking</td>
<td>P. Arnold</td>
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<tr>
<td>11:35</td>
<td>Prevalence of CKD, Diabetes &amp; Hypertension in Rural Tanzania</td>
<td>P. Arnold</td>
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Adjourn

Next Meeting Dates:
6/5/15 Charleston
Kathie Hermayer called the meeting to order at 10:35 am.

I. The minutes from the September 5, 2014 meeting were approved.

II. Dr. Hermayer noted that the search for a new Surveillance Council continues.

III. The Council will continue to work on collaborations with any and all agencies within the state that can offer beneficial data that is in line with DSC goals.

The meeting was adjourned at 11:38 am

Respectfully submitted,

Kathie L. Hermayer, MD
Chair, DSC Board of Directors
S.C. takes baby steps toward better health

Social factors a hurdle as we pull up one notch to No. 42 in nation

Reginald Ellington, a fitness specialist, leads a group through exercises during a strength training and resistance bands class Tuesday at Roper St. Francis Cancer Center.

Top 10
1. Hawaii
2. Vermont
3. Massachusetts
4. Connecticut
5. Utah
6. Minnesota
7. New Hampshire
8. Colorado
9. North Dakota
10. Nebraska

BY LAUREN SAUSser
lsauser@postandcourier.com

For a second year in a row, South Carolina inched up one spot in the annual America’s Health Rankings.
Small gains are good news, but the Palmetto State still could make significant improvements. Since the rankings were first released in 1990, South Carolina has never scored highly — bouncing between 41st and 48th. This year, it ranks 42nd healthiest among all states (or ninth unhealthiest, depending on your point of view) up from 43rd in 2013 and 44th in 2012.
"When you have ranking systems like this, for us to move up one, (it) means someone else moved back one," said Lillian Smith, the

Poll
What factor do you think is most important in determining an area's overall health rating? Go to postandcourier.com/polls to vote.

Bottom 10
41. Indiana
42. South Carolina
43. Alabama
44. West Virginia
45. Tennessee
46. Oklahoma
47. Kentucky
48. Louisiana
49. Arkansas
50. Mississippi

Please see HEALTH, Page A8
State takes baby steps toward better health

by C. Steven Earl, Staff Writer

health, from a1

Assistant Dean for Practice and Community Engagement at the University of South Carolina’s Arnold School of Public Health. “Does that mean that we improved or someone else got worse? You’ve got to take these things with a grain of salt.”

The report, which is released every December, is sponsored by United Health Foundation, the American Public Health Association and Partnership for Prevention. Hawaii earned the top spot in this year’s rankings, Mississippi was named the least healthy state. Most states in the bottom 10 are in the South.

Nationally, there is also room for improvement. Obesity rates and the percentage of adults who aren’t physically active increased between 2013 and 2014. Meanwhile, infant mortality and the number of Americans who are smoking decreased slightly year over year, while the percentage of adolescents who were adequately immunized increased.

“We applaud hard-won advances in several key measures, including smoking prevalence, even as this year’s America’s Health Rankings is a solemn reminder that we have a lot more work ahead of us,” said Dr. Reed Tuckson, senior medical adviser for the United Health Foundation, in a prepared statement.

The rankings take into account obvious health measures — obesity, diabetes and binge drinking rates — but they also consider some of the so-called “social determinants of health,” including education and public safety.

For example, social factors contributing to this state’s low overall ranking include a low high school graduation rate and a high violent crime rate. South Carolina ranks 46th in the country in both categories.

“If you have high violence in your neighborhood, you’re less likely to go out and take walks. It can also cause higher levels of stress that your body has to deal with,” said Smith, the USC public health expert.

Social factors, such as a low high school graduation rate and a high violent crime rate, contribute to South Carolina’s low overall health ranking.

How S.C. stacks up

46th for high school graduation rate

46th for violent crime

46th for number of dentists per 100,000 residents

47th for diabetes rate

42nd for premature deaths

44th for infant mortality

14th for binge drinking

10th for cases of pertussis

20th for preventable hospitalizations

— Source: America’s Health Rankings 2014 Edition

“You can put someone on a diet, but if they aren’t able to exercise and they don’t have access to healthy foods, they are not able to follow the suggested regime.”

Lillian Smith, University of South Carolina’s Arnold School of Public Health

South Carolina leaders can make meaningful progress by working together, she said.

“What I mean by that, we have very good programs, we have well-intended projects, but they work in isolation and that if we really want to move the needle, we have to work collectively towards the same goals,” Smith said.

A good example of collaboration, she said, is the South Carolina Health Coordinating Council. It includes private businesses, health insurance companies, state agencies — all of them working toward a handful of priorities, including reducing obesity, improving access to mental health and health care services and improving birth outcomes.

“The more folks we can get working together on these common goals, the better off we’ll be,” said Graham Adams, chairman of the Health Coordinating Council. “If we can get the Legislature to start focusing on these goals — both attention and resources on how to achieve these goals — we’re going to reach them that much faster.”

Reach Lauren Sausser at 937-5598.
PREVALENCE OF CHRONIC KIDNEY DISEASE, DIABETES AND HYPERTENSION IN RURAL TANZANIA

Authors: Ploth DW\textsuperscript{a}, Mbwambo J\textsuperscript{*}, Fonner V \textsuperscript{*}, Horowitz B\textsuperscript{b}, Zager F\textsuperscript{c}, Frederick F\textsuperscript{d}, West C. and Sweat M\textsuperscript{*}

\textsuperscript{a}Department of Medicine, Division of Nephrology and the \textsuperscript{*}Department of Psychiatry and Behavioral Sciences, Division of Family Services Research, Medical University of South Carolina, Charleston, SC, USA. \textsuperscript{b}Department of Medicine, Division of Nephrology, University of New Mexico, Albuquerque, NM, USA. \textsuperscript{c}Department of Psychiatry and \textsuperscript{d}Division of Nephrology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania.

Funding for this project from Global Health Initiative Pilot Project Award, Center for Global Health, Medical University of South Carolina and Dialysis Clinics, Inc., Nashville, TN.

Non-communicative diseases (NCD) including chronic kidney disease (CKD) and usually related conditions including, diabetes mellitus (DM), hypertension (HTN) and cardiovascular disease represent increasing public health challenges in low- and middle-income countries. The present study was conducted to explore the hypothesis that there are previously underappreciated and interrelated epidemics of CKD, DM, and HTN in rural Tanzania. To explore this hypothesis we assessed the prevalence in a probability-based sample of 740 subjects who were randomly sampled from households in a geographic area in Kisarawe District of rural Tanzania, which has a population of 21,205.

Prevalence estimates for DM were obtained by measuring HbA1c. Blood pressure was measured in accordance with American Heart Association guidelines. We assessed kidney function by measuring serum creatinine in blood samples obtained at the time of interview in the home. Estimation of glomerular filtration rate (eGFR) was computed with the CKD-Epi equation. The diagnostic criteria and prevalence estimates for these conditions are shown in the table.

<table>
<thead>
<tr>
<th>NCD</th>
<th>Diabetes</th>
<th>Pre-diabetes</th>
<th>HTN</th>
<th>Pre-HTN</th>
<th>CKD Stage 3 to 5</th>
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<tbody>
<tr>
<td>Criteria</td>
<td>HBA\textsubscript{A1c} &gt;6.5%</td>
<td>HBA\textsubscript{A1c} &gt;5.9 to &lt; 6.5</td>
<td>BP &gt; 140/90 mm Hg</td>
<td>BP 120-130/80-89 mm Hg</td>
<td>eGFR &lt; 60 ml/min/1.73m\textsuperscript{2}</td>
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<tr>
<td>Prevalence</td>
<td>14.7%</td>
<td>30.5%</td>
<td>17.5%</td>
<td>40.0%</td>
<td>12.6%</td>
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<tr>
<td>Prevalence Males</td>
<td>13.0%</td>
<td>28.4%</td>
<td>14.3%</td>
<td>43.8%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Prevalence Females</td>
<td>16.0%</td>
<td>31.9%</td>
<td>19.6%</td>
<td>37.4%</td>
<td>12.1%</td>
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The prevalence of CKD stages 3 to 5 was associated with increasing age (p<0.05) and male gender (p<0.05). The prevalence of CKD stage 5 among those aged 18-26 years was surprisingly high (5.7%). The unexpected high prevalence of CKD stage 5 observed among young participants suggests a possible role for infectious agents in the pathogenesis of CKD in rural Tanzania. The prevalence of all stages of
HTN increased with advancing age (p<0.05). Surprisingly, in contrast to findings in high income countries, we did not detect an association of either DM or HTN with CKD.

In summary we observed unexpectedly high prevalence estimates for CKD, HTN and DM in a probability based sample in rural Tanzania. The higher than expected prevalence of these NCD’s will likely contribute to rapidly accelerating rates of cardiovascular morbidity and mortality in these areas. Additional studies are desperately needed to expand the characterization and define the causality of the CKD, HTN and DM that we observed in this rural setting. It is imperative that as these additional studies are performed, the prevalence and incidence of these non-communicative diseases be monitored in response to prevention and treatment paradigms directed at reducing of the risk of kidney disease, DM, HTN and cardiovascular disease in order to prevent a major public health threat in Tanzania.