

# Durham 15th, Orange 2nd in health rankings

**BY KEITH UPCHURCH**  
KUPCHURCH@HERALDSUN.COM;  
919-419-6612

DURHAM — Durham ranked 15th in health among North Carolina's 100 counties and Orange County ranked second in an annual report released Wednesday.

Durham County dipped from 11th to 15th healthiest, according to the seventh-annual County Health Rankings by the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

Although Durham County's overall ranking for 2016 dipped slightly, the county has consistently ranked in the top 25 percent of counties in North Carolina, placing eighth in 2012 and 17th in 2013 and 2014.

Gayle Harris, director of

the Durham County Department of Public Health, said building a healthy community "is not an overnight process."

"Highs and lows are to be expected, as we transform our community," Harris said. "Although we have made strides in many areas, some, such as child poverty and income inequality, are much more complex and take years, if not a generation, to turn around."

Harris said Durham's health "goes far deeper than having world-class health care in our backyard. Affordable housing, education, and income equality significantly impact overall health as well."

Harris said organizations including the Partnership for a Healthy Durham and annual meetings such as the

Duke-Durham Health Summit work to identify and tackle health problems.

Here are some of the study's findings for Durham County compared to North Carolina as a whole:

- Premature deaths: 6,200 per 100,000 population compared to 7,200 statewide.
- Access to exercise opportunities: 91 percent vs. 71 percent.
- Children in poverty: 22 percent vs. 24 percent.
- Children in single-parent households: 42 percent vs. 36 percent.
- Uninsured: 18 percent vs. 18 percent.
- Diabetic monitoring: 91 percent vs. 89 percent.
- Violent crime: 648 per 100,000 population vs. 355 per 100,000 population statewide.

• Severe housing problems: 19 percent vs. 17 percent.

The study cited the following "areas of strength" in Durham:

- Mammography screening: 67 percent.
- Unemployment: 5 percent.

"Areas to explore" include:

- Adult smoking: 17 percent.
- Adult obesity: 28 percent.
- Sexually transmitted infections: 716 per 100,000 residents.

In Orange County, Dr. Colleen Bridger, director of the Orange County Health Department, said a community's health is largely determined by its education and wealth.

"Orange County typical-

ly leads the way in both of these things, which is why it isn't surprising that we are consistently ranked as one of the healthiest counties in the state," Bridger said. "Unfortunately, what this doesn't show is the county's dramatic income inequality. Basically, we have a lot of people at the top of the income scale and a lot of people at the bottom of the income scale."

Bridger said the county "is not resting on our ranking, but instead, we are taking action through programs including the Family Success Alliance to battle the adverse effects of poverty by strengthening a pipeline of success for our low-income families."

For more information, visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org)

## UNC researchers solve nuclear waste quandary

Technology was originally developed for solar energy

**BY UNC NEWS SERVICE**

CHAPEL HILL — UNC-Chapel Hill researchers have adapted a technology developed for solar energy to selectively remove one of the trickiest and most-difficult-to-remove elements in nuclear waste pools across the country, making the storage of nuclear waste safer and nontoxic — and solving a decades-old problem.

The work, published in *Science*, not only opens the door to expand the use of one of the most efficient energy sources on the planet, but also adds a key step in completing the nuclear fuel cycle — an advance, along with wind and solar, that could help power the world's energy needs cleanly for the future.

The technology Meyer and Dares developed is closely related to the one used by Meyer at the UNC Energy Frontier Research Center of Solar Fuels to tear electrons from water molecules. In the americium project, Meyer and Dares adapted the technology to tear electrons from americium, which requires twice as much energy input as splitting water. By removing those three electrons, americium behaves like plutonium and uranium, which is then easy to remove with existing technology.

Dares describes that nuclear fuel is initially used as small solid pellets loaded into long, thin rods. To reprocess them, the used fuel is first dissolved in acid and the plutonium and uranium separated. In the process, americium will either be separated with plutonium and uranium or removed in a second step.

Meyer and Dares worked closely with Idaho National Laboratory (INL), which provided

research support and technical guidance on working with nuclear materials. Most of the experiments were carried out in the laboratories at Idaho, which provided a safe area to work with radioactive material. At present, INL and UNC-Chapel Hill are in discussion about extending the research and to possible scale up of the technology.

"With INL working with us, we have a strong foundation for scaling up this technology," said Dares. "With a scaled up solution, not only will we no longer have to think about the dangers of storing radioactive waste long-term, but we will have a viable solution to close the nuclear fuel cycle and contribute to solving the world's energy needs. That's exciting."

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## UNC pharmacy school ranked No. 1

**BY RAY GRONBERG**  
RGRONBERG@HERALDSUN.COM;  
919-419-6648

CHAPEL HILL — If you see anyone walking around UNC's Eshelman School of Pharmacy waving a big, foamy "we're No. 1" finger over the next few days, don't assume it has anything to do with basketball.

After knocking on the door for a few years, the school on Wednesday finally secured the top spot in the U.S. News & World Report ranking of graduate-degree programs of its type.

Its dean, Bob Blouin, called the peer-vote ranking "a validation of who we are, what we do and what we believe in as a school."

Wednesday's announcements also held good news for Duke University's Sanford School of Public Policy, which landed in a six-way tie for the 13th slot overall and jumped two slots to fourth among schools that let students specialize in policy analysis.

Meanwhile, the Duke and UNC medical schools continued to fare well on the U.S. News listings.

Duke's med school ranked eighth for both research and primary-care training, while UNC's held down the No. 2 and 22 slots, respectively. UNC's showing in the field was the same as last year's rankings, while Duke made a big move up in the primary-care list.

Both were well ahead of the state's other established medical schools, East Carolina University and Wake Forest University.

Wake was in ties for 58th and 74th slots for research and primary care, respectively. Both were downgrades on its showing of a year ago.

ECU tied for 88th in research and 32nd in primary care. The research number bettered its showing from last year, when U.S. News didn't see fit to publish one for it. The school fared worse than last year in the primary-care assessment.

Duke's Pratt School of Engineering, meanwhile, dropped out of last year's tie in the rankings with N.C. State University. State's graduate program ranks 27th, tied with counterparts at Penn State University and the University of Minnesota. The Pratt School now ranks 30th.

The other engineering schools in the UNC system, at UNC Charlotte and N.C. A&T State University, continued to lag in the rankings.

UNCC's program tied for 139th, a drop from last year, while A&T's once again didn't get a published ranking. That means it didn't place in the top three-quarters of the 215 engineering programs U.S. News looked at.

The Duke and UNC Chapel Hill business schools continued to fare well, tying competitors for the 12th and 16th slots on that list, respectively.

Duke's law school had the 11th slot in that ranking all to itself, while UNC's tied Brigham Young University's for 38th. Wake Forest's law school followed in 40th, and Campbell Universi-

ty's in 144th. N.C. Central's law school didn't get a published ranking.

Among nursing schools, Duke's master's-level program tied for 4th and its doctoral program ranked 3rd. UNC's tied for 21st for both degrees.

Finally, the magazine's annual ranking of teacher-training programs placed UNC's at 35th, in a tie with the University of Delaware's.

U.S. News ranks medical, nursing, engineering, law and education programs annually. It updates the assessment of other graduate-school offerings, pharmacy and public-affairs schools included, less frequently.

The Eshelman School of Pharmacy had held down the No. 2 slot on the pharmacy list for a couple of the magazine's review cycles, and before that had been in a tie for 3rd, UNC spokeswoman MC VanGraafeiland said.

The pharmacy-school list was somewhat unusual for being dominated by public universities. The others featured more of a mix of public and private universities.

Since its last ranking, the Eshelman school made waves for landing a \$100 million donation from its namesake, alumnus Fred Eshelman, and for joining UNC's medical school in a \$20 million-plus partnership with British pharmaceuticals company GlaxoSmithKline to seek a cure for HIV/AIDS.

Follow Ray Gronberg on Twitter @rcgronberg

## Police: Man exonerated of murder charge likely died by suicide

**BY MARTHA WAGGONER**  
THE ASSOCIATED PRESS

RALEIGH — A man who spent 19 years behind bars for a murder he didn't commit had been diagnosed with cancer before he died of what police believe was a self-inflicted gunshot wound, a friend and minister said Wednesday.

Darryl Hunt had been diagnosed with prostate and stomach cancer, the Rev. John Mendez said. His divorce also had contributed to his depression, Mendez said.

"We knew the demons that he had fought without, but I

don't think everybody knew the demons he had to fight within," Mendez said.

Police said Wednesday that the 51-year-old Hunt died of a single gunshot wound to his torso and that he likely died by suicide. They say a handgun was found inside the locked vehicle and that investigators found no evidence of a struggle.

The car with Hunt's body inside it was discovered Sunday near the Wake Forest University campus. Authorities say they're awaiting final autopsy results.

Hunt was convicted twice in the death of newspaper copy editor Deborah Sykes, narrowly avoiding the death penalty in the first trial. He was exonerated in February 2004 on the basis of DNA evidence that led police to another suspect, who confessed.

Then-Gov. Mike Easley pardoned Hunt, and the state awarded him more than \$300,000. The city of Winston-Salem awarded him more than \$1.6 million, and a report by a citizens review committee uncovered mistakes in the police investigation.

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