

Local Health Department Staffing and Services Summary

Fiscal Year 2009

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North Carolina
Department of Health and Human Services
Division of Public Health
State Center for Health Statistics
June 2010

Local Health Department Staffing and Services Summary Fiscal Year 2008–2009



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June 2010

Table of Contents

Introduction	1
Changes to the Survey Instrument	1
Staffing (Section A)	2
Local Health Department Occupations and FTEs	2
Total FTEs	2
Occupational Composition of LHDs	5
Change in 2007 and 2009 FTEs, by County	5
Public Health Services (Section B)	7
Health Support Services	7
Environmental Health	7
Personal Health	7
Bilingual Health Initiatives (Section C)	12
Non-English Information and Education Material in LHDs	12
Bilingual Staff	12
Bilingual Training	12
Information Technology (Section D)	14

Introduction

This survey is the latest in a series of surveys of North Carolina health departments which, since 1984, have provided a count of health department employees by occupational groups, a summary of essential public health services, and assessments of other topics, such as bilingual health initiatives and the use of information technology in health departments. All surveys have been oriented to the state's fiscal year: beginning July 1 and ending June 30 of the subsequent year. The current survey was administered in the fall of 2009, and covers the 2008–2009 fiscal year (FY2009).

All of North Carolina's 100 counties are represented in this survey. A total of 85 surveys were returned, consisting of 79 single-county health department respondents and six multi-county district health department respondents. The district health departments included are: (1) Alleghany, Ashe, and Watauga counties (Appalachian District); (2) Granville and Vance counties; (3) Martin, Tyrrell, and Washington counties; (4) Rutherford, Polk, and McDowell counties; (5) Avery, Mitchell, and Yancey counties (Toe River Health District); and (6) Albemarle Regional Health District (consisting of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank, and Perquimans counties).

In this report, we summarize the data from the FY2009 survey, and we present comparisons with the FY2007 survey data where possible. For the section of the survey on staffing, we use the same definitions that have been used in the past to calculate the number of full time equivalent (FTE) employees in order to ensure consistency across reports. Throughout this report, health department respondents are referred to as health departments, health departments/health districts, or LHDs (Local Health Departments).

Changes to the Survey Instrument

There were no major changes to the survey instrument in FY2009.

Staffing (Section A)

Local Health Department Occupations and FTEs

Table 1 presents data regarding Health Department staffing for FY2009. Data are presented for each occupational group, and include the total number of full-time positions, the total hours worked by part-time staff per average week, the annual number of contract staff hours worked, as well as the total FTEs—both including and excluding contract staff. FTEs were calculated as the number of full-time funded positions, plus the number of part-time hours divided by 40 (one work week).

Total FTEs

As of July 1, 2009, there were 9,567 full-time equivalent employees in county health departments (not including contract personnel), which is below the 2007 FTE total by 109 employees (**Figure 1**). Based on the FTE total for FY1989, the number of additional FTE health department employees in FY2009 constituted an increase of 64 percent over the past 20 years.

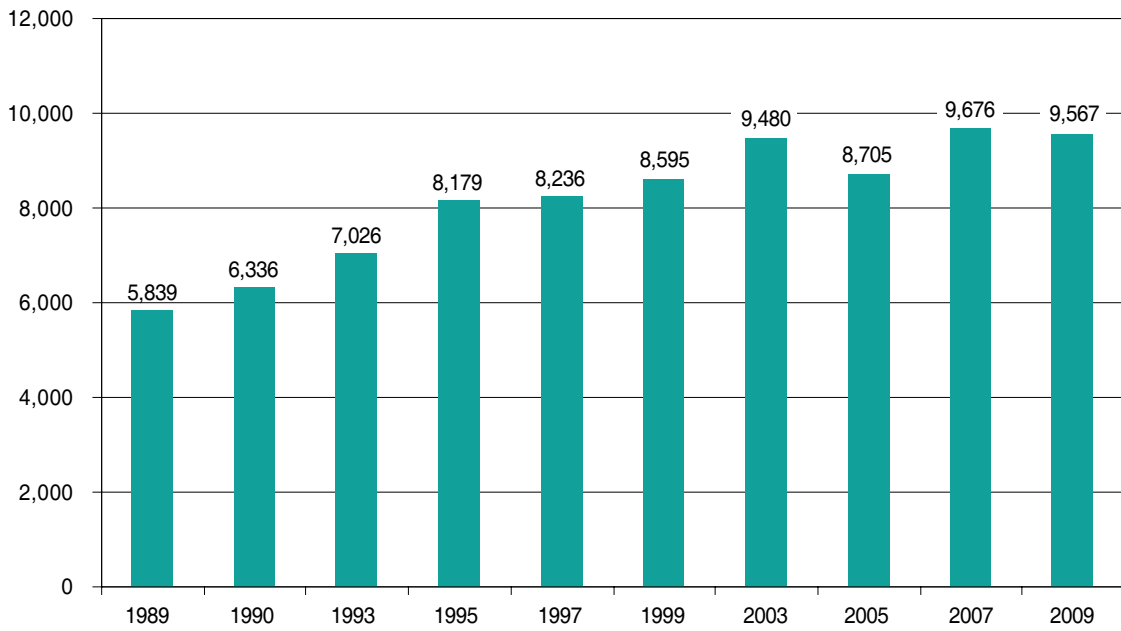
In **Figure 2**, trends from FY1989–FY2009 are shown for three of the largest professional groups working in North Carolina health departments: nurses (LPNs and RNs), management support staff, and environmental health specialists. Within the nursing profession, the total number of FTE nurses increased in both FY2007 and FY2009. Environmental health specialist positions have increased by 38 percent (232 FTEs) since 1989. The number of administration/management support staff positions has also increased since 1989, with an increase of 615 positions (37 percent) during this time.

**Table 1. Health Department Staffing for FY2009:
Full-Time Positions, Part-Time Hours, Annual Contract Hours, and FTEs by Occupation**

Occupational Groups	Total Funded Full-time Positions	Total Vacant Positions During Year	Total Hours Worked by Part-time Staff	Annual Contract Staff Hours Worked	Total FTE (Not Including Contract)	Total FTE (Including Contract)
Health Director	84	10	115	840	86	87
Administrative/Management Support Staff	2,217	198	2,877	16,375	2,289	2,297
LAN/PC Support	32	2	93	5,352	34	37
Physician	59	6	595	30,914	74	90
Physician Assistant	50	13	542	6,668	63	66
Dentist	48	5	154	34,222	51	69
Dental Assistant	116	15	393	7,683	126	130
Dental Hygienist	47	6	493	3,868	59	61
RN (Clinical)	1,400	165	2,879	7,473	1,472	1,476
RN (Enhanced Role)	337	28	266	0	344	344
RN (Home Health)	462	77	522	28,932	475	490
LPN (Clinical)	117	13	1,239	540	148	148
LPN (Home Health)	19	1	135	1,142	22	23
Occupational Health Nurse	4	1	0	1,271	4	5
Nurse Practitioner	137	10	1,726	21,166	180	191
Certified Nurse Midwife	13	4	30	9,747	14	19
Pharmacist	32	4	86	7,418	34	38
Nutritionist	394	58	694	4,470	411	413
Therapist	40	0	120	99,143	43	93
Social Worker	507	38	565	6,323	521	524
Environmental Health Specialist	834	50	461	2,771	845	846
Environmental Health Technician	16	9	0	0	16	16
Public Health Investigator	15	2	0	2,688	15	16
Lab Technician	207	19	905	3,817	230	232
X-Ray Technician	5	0	20	932	6	6
Health Educator	328	39	299	3,048	335	337
Interpreter, Spoken Language	202	17	432	42,111	213	234
Aides (all types)	409	59	2,066	32,626	461	477
Landfill Operators/Workers	108	5	20	5000	109	111
Animal Control Officers	136	14	154	319	140	140
Epidemiologist/Statistician	13	3	76	0	15	15
Other	715	52	682	11,961	732	738
TOTAL	9,101	923	18,637	398,817	9,567	9,767

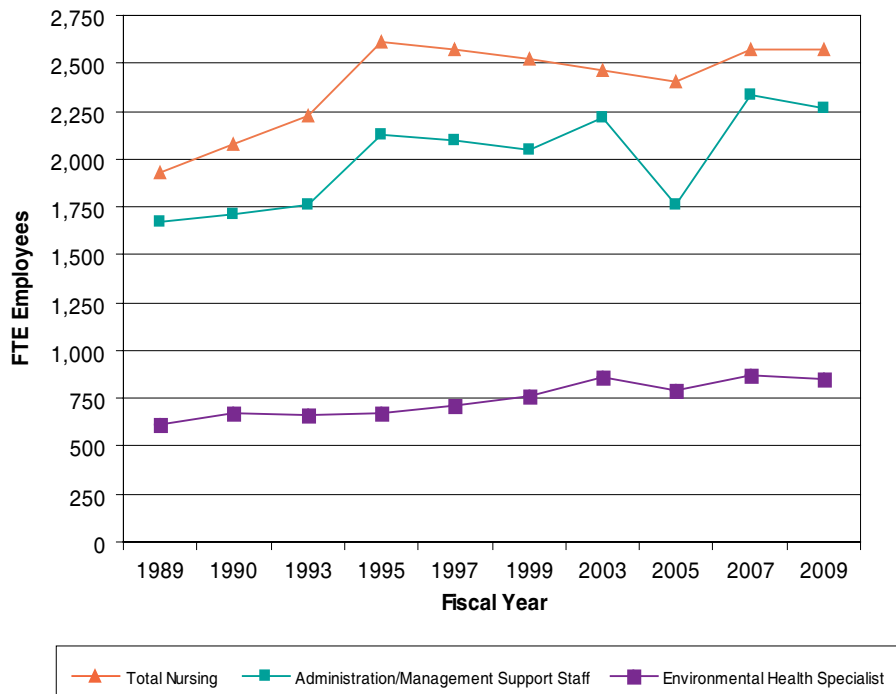
Note: Part-time hours per week were converted to FTEs by dividing by 40; annual contract staff hours were converted to FTEs by dividing by 2000.

Figure 1
Full-Time Equivalent Employees, FY1989–FY2009
(Not Including Contract Personnel)



Note: 2003, 2007, and 2009 were the only years with a 100 percent response rate.

Figure 2
Staffing Change by Occupational Category, FY1989–FY2009
(Not Including Contract Personnel)



Occupational Composition of LHDs

Figure 3 shows the distribution of all public health occupations in North Carolina health departments for FY2009. The nursing profession made up the largest percentage of personnel with 28 percent, followed closely by management support staff with 24 percent. The remaining specified occupations—aides, environmental health specialists, social workers, nutritionists, and health educators—accounted for about 27 percent of all health department personnel. Those who were assigned to the “other” category in the survey comprised an additional 21 percent of the occupations. This occupational distribution, shown in Figure 3, is similar to the results found in the FY2007 health department survey, with nurses representing 27 percent and support staff representing 24 percent of the health department personnel.

Change in 2007 and 2009 FTEs, by County

Table 2 shows the change in the number of FTEs from 2007 to 2009, along with the percent change. Overall, 41 of 85 health departments/health districts lost FTE positions during this period, and 39 of 85 health departments gained FTE positions. Also, between FY2007 and FY2009, there was virtually no change in the number of FTEs for two health departments: Henderson and Gaston.

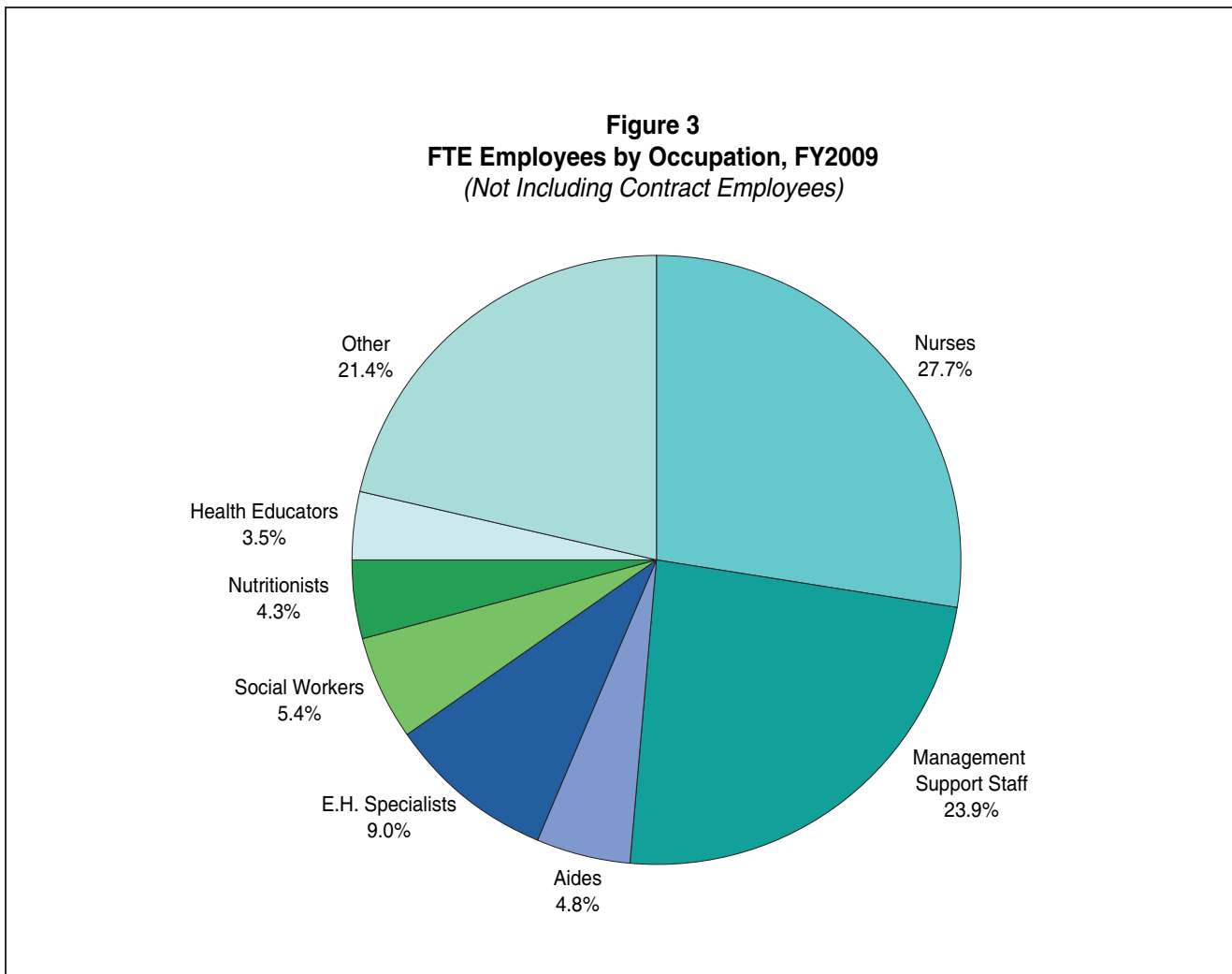


Table 2. Health Department Staffing: Change in Number of FTEs, FY2007–FY2009, Number and Percent Change by Health Department

	2007 FTEs	2009 FTEs	% Chg.		2007 FTEs	2009 FTEs	% Chg.
Alamance	107	111	3.6%	Jackson	61	57	-6.6%
Alexander	30	45	46.4%	Johnston	107	113	6.0%
Appalachian District	82	92	11.7%	Jones	15	17	11.8%
Anson	26	24	-7.7%	Lee	55	51	-6.4%
Albermarle District	429	445	3.6%	Lenoir	63	56	-11.7%
Beaufort	47	41	-11.2%	Lincoln	73	76	3.9%
Bladen	63	65	3.6%	Macon	57	66	15.7%
Brunswick	102	87	-14.7%	Madison	25	29	16.0%
Buncombe	159	233	46.6%	Mecklenburg ²	*	518	*
Burke	72	81	12.1%	Montgomery	37	39	4.3%
Cabarrus	209	213	1.9%	Moore	50	62	24.0%
Caldwell	117	114	-2.8%	Martin/Tyrrell/Washington	119	110	-7.6%
Carteret	73	65	-11.3%	Nash	134	128	-4.2%
Caswell	47	41	-12.4%	New Hanover	217	172	-20.6%
Catawba	147	146	-0.7%	Northampton	82	75	-9.0%
Chatham	90	80	-11.4%	Onslow	171	126	-26.6%
Cherokee	43	37	-12.9%	Orange	94	95	0.7%
Clay	38	28	-27.7%	Pamlico	20	21	6.2%
Cleveland	202	217	7.2%	Pender	56	63	12.9%
Columbus	67	66	-0.7%	Person	55	67	21.9%
Craven	160	149	-6.7%	Pitt	124	137	11.0%
Cumberland	240	262	9.4%	Randolph	71	84	18.0%
Dare	99	106	7.8%	Richmond	112	65	-41.9%
Davidson	100	122	21.9%	Robeson	178	174	-2.3%
Davie	55	54	-1.8%	Rockingham	89	86	-2.8%
Duplin	50	52	4.0%	Rowan	82	93	13.4%
Durham ¹	218	236	8.3%	Rutherford/Polk/McDowell	110	136	23.4%
Edgecombe	135	119	-12.4%	Sampson	41	43	4.9%
Forsyth	272	248	-8.7%	Scotland	55	52	-5.5%
Franklin	61	67	10.5%	Stanly	63	64	1.2%
Gaston	188	188	0.3%	Stokes	47	32	-31.7%
Graham	16	23	48.4%	Surry	228	222	-2.7%
Granville/Vance	82	79	-3.1%	Swain	57	46	-17.9%
Greene	28	26	-9.0%	Toe River District ²	*	124	*
Guilford	484	457	-5.7%	Transylvania	31	28	-9.8%
Halifax	119	101	-14.8%	Union	104	108	3.8%
Harnett	97	84	-13.4%	Wake	882	680	-22.9%
Haywood	73	76	4.1%	Warren	47	42	-10.6%
Henderson	90	90	-0.1%	Wayne	134	130	-3.1%
Hertford	65	71	9.8%	Wilkes	64	60	-7.1%
Hoke ²	*	68	*	Wilson	142	148	4.3%
Hyde ³	42	15	-63.6%	Yadkin	31	38	24.4%
Iredell	112	115	2.7%				

Note: FTE figures do not include contract staff.

¹ Durham County FY2007 FTE totals were revised for this report.

² In certain cases, 2007 FTE data appeared to be reported in error, so no comparison with 2009 can be made.

³ In FY2009, 22 full time aides were switched to contract, resulting in a reduction in full time equivalent staff totals for Hyde County.

Public Health Services (Section B)

According to North Carolina laws: “*The Public Health Laws of North Carolina establish categories of essential public health services that are to be made available and accessible to all citizens of the State [G.S. 130A-1.1(b)].*” The services that appear in **Table 3** include all essential services established by this law as well as other services that were deemed to be essential to the public health of North Carolina citizens. For each service, counties were asked to indicate if the service was provided in their health department or health district.

Health Support Services

A total of 80 out of 85 health departments/health districts in North Carolina (94%) provide registration of vital events (see Table 3). Vital records and statistical services are maintained in 96 percent of all health departments (n=82). Most health departments indicated that they provide child health services (96%) and all (100%) report that they offer health education services. In addition, most health departments report that they perform communicable disease surveillance (96%), community health education (96%), and comprehensive community health assessment (96%). A new focus in recent years is bioterrorism and emergency preparedness. A large proportion of health departments/districts report that they are engaged in bioterrorism/other emergency preparedness response planning and assessment (96%). However, significantly fewer reported that their health department/district is engaged in chronic disease surveillance (62%). Nearly all health departments reported offering child health services (96%) and prenatal care services (91%). Most health departments/districts (95%) stated that they offer spoken language interpretation to their clients. The health support service provided least frequently was pesticide poisoning investigation, with less than 20 percent of health departments reporting that they offered this service.

Environmental Health

Almost all county health departments reported offering restaurant and lodging inspections (99%) and on-site sewage and wastewater disposal services (98%). With regard to water sanitation and safety, 78 out of 85 county health departments (92%) offer private water supply services and 79 percent (n=67) offer water sanitation and safety services. Public swimming pool sanitation was available in all but two health departments (98%). Lead abatement is offered by 70 percent (n=59) of the health districts surveyed. Regarding pest management, 36 health departments (42%) provide mosquito control and 16 health departments (19%) provide rodent control. Tick control is provided by 20 percent of all health departments (n=17) and bedding control is offered in 16 health departments (19%).

Personal Health

Personal health services comprised the largest category of services. Slightly more than half of all health departments (52%) reported offering pediatric primary care services, while adult primary care was offered in fewer health departments (42%). Complete coverage was available for maternity care coordination and nearly all health departments reported offering contraceptive care, child service coordination, and immunizations.

Under the sub-category of **Maternal Health** services, over 90 percent of health departments provided Maternity Care Coordination (100%), SIDS counseling (95%), and maternal WIC services (95%) and most health departments (87%) reported that they provide prenatal/postpartum care. Within **Family Planning** services, nearly all health departments reported offering contraceptive care (99%). In addition, most health departments also provide adolescent pregnancy prevention (92%) and preconception counseling (94%). Fertility services

— text continued on page 11

Table 3. Public Health Services
(As of 7/1/2009 with 100 percent of Health Departments/Health Districts reporting)

Services Offered	Number of Health Departments Offering Service	Percent of Health Departments Offering Service
HEALTH SUPPORT		
Registration of Vital Events	80	94.1%
Assessment of Health Status, Health Needs and Environmental Risks to Health Epidemic Investigations		
Risk Assessment	61	71.8%
Pesticide Poisoning	16	18.8%
Health Assessment		
Comprehensive Community Health Assessment	82	96.5%
Behavioral Risk Assessment	42	49.4%
Morbidity Data	57	67.1%
Reportable Disease	81	95.3%
Vital Records and Statistics	82	96.5%
Chronic Disease Surveillance	53	62.4%
Communicable Disease Surveillance	82	96.5%
Bioterrorism/Other Emergency Preparedness Response	82	96.5%
Planning and Assessment		
Policy Development Functions/Services		
Health Code Development and Enforcement	54	63.5%
Health Planning	63	74.1%
Health Assurance		
Health Education	85	100.0%
Child Health	82	96.5%
Prenatal Care	77	90.6%
Community Health Education	82	96.5%
Interpretation, Spoken Language	81	95.3%
Laboratory Services	84	98.8%
Public Health Nurse Pharmacy Dispensing	52	61.2%
Other Pharmacy Services	36	42.4%
School Nursing Services	29	34.1%
ENVIRONMENTAL HEALTH		
Restaurant/Lodging/Institutions Sanitation and Inspections	84	98.8%
On-Site Sewage and Wastewater Disposal	83	97.6%
Water Sanitation and Safety	67	78.8%
Private Water Supply	78	91.8%
Milk Sanitation	5	5.9%
Shellfish Sanitation	9	10.6%
Public Swimming Pool	83	97.6%
Bedding Control	16	18.8%
Pest Management	29	34.1%
Mosquito	36	42.4%
Rodent	16	18.8%
Ticks	17	20.0%
Lead Abatement	59	69.4%

Table 3. Public Health Services
(As of 7/1/2009 with 100 percent of Health Departments/Health Districts reporting)

Services Offered	Number of Health Departments Offering Service	Percent of Health Departments Offering Service
PERSONAL HEALTH		
Primary Care		
Adult	36	42.4%
Pediatric	44	51.8%
Maternal Health		
Prenatal and Postpartum Care	74	87.1%
Maternity Care Coordination	85	100.0%
SIDS Counseling	81	95.3%
WIC Services— Mother	81	95.3%
Family Planning		
Preconceptional Counseling	80	94.1%
Contraceptive Care	84	98.8%
Fertility Services	32	37.6%
Pregnancy Prevention — Adolescent	78	91.8%
Child Health		
Well-Child Services	77	90.6%
Genetic Services	24	28.2%
Services to Children with Developmental Disabilities	33	38.8%
Child Service Coordination	84	98.8%
Adolescent Health Services	64	75.3%
School Health Services	34	40.0%
Lead Poisoning Prevention	82	96.5%
WIC Services — Children	80	94.1%
Immunizations	84	98.8%
Newborn Home Visiting Services	75	88.2%
Behavioral Health Services	19	22.4%
Children with Special Health Care Needs Services	22	25.9%
Chronic Disease Control		
Early Detection and Referral		
Kidney Disease	21	24.7%
Hypertension	61	71.8%
Cancer	59	69.4%
Diabetes	66	77.6%
Cholesterol	58	68.2%
Arthritis	20	23.5%
Glaucoma	6	7.1%
Epilepsy	14	16.5%

Table 3. Public Health Services
(As of 7/1/2009 with 100 percent of Health Departments/Health Districts reporting)

Services Offered	Number of Health Departments Offering Service	Percent of Health Departments Offering Service
PERSONAL HEALTH <i>(continued)</i>		
Patient Education		
Kidney Disease	26	30.6%
Hypertension	68	80.0%
Cancer	66	77.6%
Diabetes	72	84.7%
Cholesterol	67	78.8%
Arthritis	26	30.6%
Glaucoma	16	18.8%
Epilepsy	19	22.4%
Chronic Disease Monitoring and Treatment	34	40.0%
Home Health Services	33	38.8%
Health Promotion and Risk Reduction		
Nutrition Counseling	77	90.6%
Injury Control	39	45.9%
Tobacco Cessation	76	89.4%
Communicable Disease Control		
Tuberculosis Control	85	100.0%
Acute Communicable Disease Control	77	90.6%
Rabies Control	78	91.8%
STD Control		
Case Management	57	67.1%
Medications	74	87.1%
Training/Education	84	98.8%
Screening	84	98.8%
AIDS/HIV Screening	85	100.0%
Vaccinations for Hepatitis A and B	82	96.5%
Dental Health		
Dental Health Education	64	75.3%
Topical Fluoride Application	63	74.1%
Sealant Application	51	60.0%
Dental Screening and Referral	66	77.6%
Dental Treatment	47	55.3%
Community Fluoridation	16	18.8%
"Into the Mouths of Babes" Dental Prevention Services	27	31.8%
Other Personal Health		
Migrant Health	22	25.9%
Refugee Health	23	27.1%

were less likely to be offered, with slightly more than a third of health departments (38%) reporting that they offered this service. Within **Child Health** services, immunizations (99%), child service coordination (99%), lead poisoning prevention (97%), child WIC (94%) services, and well child services (91%) were most often provided.

For services related to **Chronic Disease Control**, early detection and referral services were most often provided for diabetes (78%), hypertension (72%), cancer (69%), and cholesterol (68%). Less than 25 percent of health departments offered early detection and referral for kidney disease, arthritis, glaucoma, and epilepsy. In every category, the provision of **Patient Education** services for these same chronic diseases tended to be somewhat higher than that of early detection and referral.

Regarding **Health Promotion** efforts, the majority of health departments reported that they offer nutrition (91%) and tobacco cessation counseling (89%). However, only slightly less than half (46%) reported health promotion efforts aimed at injury control.

Under services for **Communicable Disease Control**, all health departments (100%) report that they offer tuberculosis control and nearly all (91%) report offering other acute communicable disease control. Under STD control, all health departments (100%) offer AIDS/HIV screening and nearly all (99%) report that they offer other STD screening. In addition, most health departments also offer vaccinations for Hepatitis A and B (96%), STD training and education (99%), and drugs for STDs (87%). More than half of health departments report offering case management services (67%).

Under **Dental Health** services, approximately three out of four health departments offer dental health education (75%), topical fluoride application (74%), and dental screening and referral (78%). Slightly more than half (55%) of all health departments report that they offer dental treatment. Less than one in five (19%) of health departments participate in community fluoridation.

With regard to **Other Personal Health** services, 22 health departments (26%) offer migrant health services and 23 health departments (27%) offer refugee health services.

Bilingual Health Initiatives (Section C)

Non-English Information and Education Material in LHDs

All health departments reported providing educational and informational materials in Spanish. Besides Spanish, a few health departments also provided educational material in Chinese and Hmong. One health department reported also offering educational/information materials in Arabic, Armenian, Cambodian, Hindi, Korean, Laotian, Punjabi, Russian, Tagalog, and Vietnamese.

Regarding the use of non-English material in health department service areas, most health departments (97%) reported that their Family Planning clinics use non-English material. In addition, most health departments stated that they use non-English material for Maternal Health (95%), Patient Education (92%), Child Health Services (95%), and Communicable Disease Control (94%). Non-English materials were least likely to be available for Chronic Disease Control (65%), Dental Health (67%), and Health Promotion (80%).

Chronic Disease Control, Health Promotion, Communicable Disease Control, Patient Education, and Dental Health were the areas in which there may be a need for non-English materials.

Bilingual Staff

Seventy-two health departments (85%) reported having staff positions designated as interpreters and 13 health departments (15%) did not report having designated interpreters. The number of health department staff who were bilingual ranged from one (10 health departments) to 38 (one health department).

In FY2009, there were 420 local health department staff members (including contract staff) who were reportedly bilingual; in 2007, that number was 411. **Table 4** shows the number of FY2007 and FY2009 bilingual staff by county. The number of bilingual staff increased for 25 health departments and decreased in 19 health departments. For 25 health departments, the number of bilingual staff remained unchanged. Four counties reported no bilingual staff members in 2007 and in 2009. The largest gain in FY2009 bilingual staff occurred in Gaston (+12) county. Sixteen counties left this field blank in either FY2007 and/or FY2009, so for those counties no changes in bilingual staffing could be calculated.

Bilingual Training

More than half of health departments (63%) reported that special training is provided for health care providers who work with non-English speaking clients. In addition, 68% of health departments report that their service population is becoming more non-English speaking. In light of this, most departments report that their staff has undergone cultural diversity training (93%) and one in 10 (nine health departments) indicated that cultural diversity training is needed. Further, slightly more than half of health departments (62%) report that their department has specific outreach efforts targeting non-English speaking populations.

**Table 4. Bilingual Health Initiatives:
Change in the Number of Bilingual Staff from FY2007 to FY2009,
by Health Department**

	FY2007 Bilingual	FY2009 Bilingual	Chg.		FY2007 Bilingual	FY2009 Bilingual	Chg.
Alamance	10	7	-3	Jackson	2	2	0
Albemarle District	0	2	2	Johnston	*	0	-
Alexander	*	1	-	Jones	2	4	2
Anson	1	0	-1	Lee	4	7	3
Appalachian District	3	3	0	Lenoir	3	4	1
Beaufort	2	2	0	Lincoln	*	2	-
Bladen	*	2	-	Macon	2	2	0
Brunswick	3	8	5	Madison	2	2	0
Buncombe	*	38	-	Martin/Tyrrell/Washington	1	1	0
Burke	1	2	1	Mecklenburg	17	17	0
Cabarrus	25	16	-9	Montgomery	5	6	1
Caldwell	*	4	-	Moore	3	2	-1
Carteret	2	2	0	Nash	6	6	0
Caswell	1	0	-1	New Hanover	*	8	-
Catawba	9	8	-1	Northampton	0	0	0
Chatham	*	10	-	Onslow	*	2	-
Cherokee	0	2	2	Orange	3	8	5
Clay	0	0	0	Pamlico	2	3	1
Cleveland	1	1	0	Pender	4	6	2
Columbus	3	3	0	Person	1	1	0
Craven	2	3	1	Pitt	5	2	-3
Cumberland	10	5	-5	Randolph	12	14	2
Dare	5	3	-2	Richmond	2	1	-1
Davidson	3	3	0	Robeson	10	14	4
Davie	3	3	0	Rockingham	3	3	0
Duplin	*	10	-	Rowan	4	9	5
Durham	13	17	4	Rutherford/Polk/McDowell	3	5	2
Edgecombe	1	2	1	Sampson	*	7	-
Forsyth	25	*	*	Scotland	1	1	0
Franklin	2	0	-2	Stanly	2	2	0
Gaston	3	15	12	Stokes	2	1	-1
Graham	*	0	-	Surry	7	9	2
Granville/Vance	1	1	0	Swain	0	0	0
Greene	3	4	1	Toe River District	9	7.5	-1.5
Guilford	32	15	-17	Transylvania	1	1	0
Halifax	2	2	0	Union	17	*	*
Harnett	3	3	0	Wake	45	*	*
Haywood	4	7	3	Warren	2	1	-1
Henderson	13	15	2	Wayne	9	8	-1
Hertford	0	0	0	Wilkes	6	11	5
Hoke	6	3	-3	Wilson	7	5	-2
Hyde	*	0	-	Yadkin	5	3	-2
Iredell	10	11	1	N.C. Total	411	420.5	9.5

* Bilingual staff data not available for this health department.

Information Technology (Section D)

Table 5 provides a summary of the technological capacity of health departments and the number of employees who have access to these information technologies. As reported on the survey, there were a total of 7,630 desktops or personal computers (PCs) in use in 2009. The majority (83%) of health department PCs use Pentium computers with Windows XP and another 10 percent use Pentium computers with Windows 2000. In addition, the number of laptop computers has increased—from 2,464 reported in health departments in 2007 to 2,545 in use in 2009.

Eighty health departments reported having a Local Area Network (LAN) system, roughly the same number as in 2003, 2005, and 2007 (**Table 6**). More than half of all health departments (61%) had a LAN administrator on staff. More than half of all health departments (67%) were connected to the state's Wide Area Network (WAN), compared to 60 percent in 2007.

Regarding Internet access, nearly all health department respondents in 2009 reported having staff access to the Internet (98%). The majority (58%) reported the county as the provider of their Internet services, with one in five (n=17) reporting that they use the state WAN. The majority of health departments reported having an Internet connection of T1 or better (81%).

Seventy-eight health departments (92%) had an Internet homepage in 2009, up from 86 percent in 2007. The availability of Geographic Information Systems (GIS) decreased in 2009, with 14 counties (17%) reporting GIS in their health department and 69 counties (81%) reporting that their county maintains county-wide GIS services (see Table 5).

Most health departments had security systems such as firewalls (98%) and back-up/recovery systems (95%). However, only 55 percent reported having a business continuity or disaster recovery plan in place and only 10 health departments (12%) had a recovery plan that had been tested. Less than half (47%) had redundant or fail-over systems, but more than half had virtual private networks (72%).

**Table 5. Information Technology:
Summary of Technological Capabilities Among Health Departments, FY2009**

	Number	Percent	Number of Personal Computers by Model and Operating System	
Local Area Network (LAN)	80	94.1%	Desktop:	
Ethernet	74	87.1%	Pentium Win 2000	773
Other	11	12.9%	Pentium Win XP	6,334
LAN Administrator on staff	52	61.2%	Pentium Win 95, 98/Me, NT	162
Part of Wide Area Network (WAN)	57	67.1%	Pentium Windows Vista	57
System has a firewall	83	97.6%	Pentium Other OS (e.g., Mac, Linux)	0
Has Virtual Private Network (VPN)	61	71.8%	Other Win 2000	29
Back-up/Recovery for systems	81	95.3%	Other Win XP	213
Business Continuity/Disaster Recovery Plan	47	55.3%	Other Win 95, 98/Me, NT	0
Business Continuity/Disaster Recovery Plan has been tested	10	11.8%	Other Windows Vista	62
Redundant or fail over systems	40	47.1%	Other, Other OS (e.g., Mac, Linux)	0
Staff have access to Internet at work	83	97.6%	Total Desktops	7,630
Access to Internet at home	32	37.6%		
Provider of Internet services:			Laptop:	
State WAN	17	20.0%	Pentium Win 2000	253
County	49	57.6%	Pentium Win XP	2,003
Cable	9	10.6%	Pentium Win 95, 98/Me, NT	14
DSL	6	7.1%	Pentium Windows Vista	111
Dial-up	0	0.0%	Pentium Other OS (e.g., Mac, Linux)	2
Missing/Unknown	4	4.7%		
Internet connection level:			Other Win 2000	0
56kb or less	1	1.2%	Other Win XP	141
Fractional T1	5	5.9%	Other Win 95, 98/Me, NT	0
T1	36	42.4%	Other Windows Vista	21
T3	9	10.6%	Other, Other OS (e.g., Mac, Linux)	0
Better	24	28.2%	Total Laptops	2,545
Missing/Unknown	10	11.8%		
Wireless access to E-mail	46	54.1%		
Wireless access to Network/LAN	41	48.2%		
County-wide GIS	69	81.2%		
Health Department GIS	14	16.5%		
Global Positioning Systems (GPS)	29	34.1%		
Desktop Video Conferencing	41	48.2%		
Department has a Web site	78	91.8%		

**Table 6. Information Technology:
Percent Change in Selected Technologies from FY2007 to FY2009**

Health Departments with:	Number in FY2007	% of Health Depts Having	Number in FY2009	% of Health Depts Having	Percent Change in Number
Total PCs in Health Departments	9,855	n/a	7,630	n/a	-22.6%
Total Laptops in Health Departments	2,464	n/a	2,545	n/a	3.3%
Local Area Network (LAN)	79	92.9%	80	94.1%	1.3%
Connection to State Wide Area Network	51	60.0%	57	67.1%	11.8%
Access to the Internet	82	96.5%	83	97.6%	1.2%
Internet Homepage	73	85.9%	78	91.8%	6.8%
Desktop Video Conferencing	27	31.8%	41	48.2%	51.9%

n/a = Not Applicable

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