

**INCREASING THE SUPPLY OF  
DENTISTS, MIDWIVES, PHYSICIAN  
ASSISTANTS, AND NURSE  
PRACTITIONERS IN UNDERSERVED  
AREAS THROUGH DOCTORS ACROSS  
NEW YORK PHYSICIAN LOAN  
REPAYMENT PROGRAM INCENTIVES**

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**REPORT TO THE NEW YORK STATE LEGISLATURE  
BY THE NEW YORK STATE DEPARTMENT OF HEALTH**

**FEBRUARY 2010**

## EXECUTIVE SUMMARY

### Overview:

In creating the Doctors Across New York (DANY) Physician Loan Repayment Program, Article 28, Section 2807-m (as amended) of the Public Health Law requires that:

*The commissioner shall conduct a study of (i) the need for expansion of the physician loan repayment program under subdivision ten of this section to include dentists, midwives, nurse practitioners, and physician assistants; (ii) the level of funding appropriate for that expansion; and (iii) appropriate sources of funding for the future of the program and the expansion. The study may include examination of possible expansion of other programs to recruit people to enter health care professions and serve in underserved areas. The commissioner shall conduct the study in consultation with representatives of the affected professions, educational institutions and training programs that educate and train people for those professions, appropriate health care providers, affected communities and other interested parties. The commissioner shall report to the governor and the legislature on the findings of the study and recommendations by December first, two thousand eight [...].<sup>1</sup>*

This report describes study findings and provides recommendations as specified in the legislation.

### Recommendations:

*i. Similar to physicians, a Department of Health (DOH) data analysis indicates that there is an immediate need for dentists in certain rural and inner city areas within New York State. Consideration should be given to expanding the DANY Loan Repayment Program to include dentists in future budget years when the fiscal climate improves in New York State.*

- Data show that there is an overall decline in the number of active dentists and shortages of dentists in underserved areas and that dentists have high levels of educational debt and substantial financial burdens establishing a dental practice.
- The National Health Service Corps (NHSC) support for dentists, although likely to expand in the short term, will not by itself close the gap of 371 dentists needed in underserved areas over the next few years.
- A survey commissioned for this report showed that only health centers reported offering incentives for recruiting or retaining dentists. The survey also indicated that recruitment and retention of dentists is an issue for health centers in that current incentives may not be sufficient.

*ii. Additional data is needed to accurately assess the supply, distribution, work locations and impact of existing incentives on Nurse Practitioners (NPs), Midwives (MWs) and Physician Assistants (PAs) in New York State before considering whether the DANY Loan Repayment Program should be extended to these professions.*

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<sup>1</sup> The December 1, 2008 deadline cited in the legislation did not give the New York State (DOH) adequate time to compile and analyze data on the Loan Repayment Program for the 2008-09 cycle, or data to profile DANY in the context of other workforce incentive programs in New York State.

## Recommendations *(continued)*:

- Currently data is limited on the demographics and practice characteristics of NPs, MWs and PAs.
- Provider associations indicated their members use a wide range of incentives to recruit and retain NPs and PAs, including income guarantees, on-call payments, sign-on bonuses and support for professional development and training. A survey prepared by the Healthcare Association of New York State (HANYS) indicated that most members used NPs and PAs, but less than half reported recruitment difficulties. The supply of licensed NPs and PAs is growing; however, it is not clear if this has resulted in an increased presence in underserved areas as the competition for jobs increases.
- The federal American Recovery and Reinvestment Act (ARRA) provides support through federal fiscal year 2011 to increase the number of NHSC-obligated primary care NPs, MWs and PAs serving in underserved areas.

## Research Methods:

DOH asked the Center for Health Workforce Studies (CHWS) at the University of Albany to assist in the preparation of this report. CHWS used data drawn from both primary and secondary sources for this report. Secondary data sources included:

- New York State DOH, Statewide Planning and Research Cooperative System data on ambulatory care sensitive hospitalizations; and
- Licensure data from the New York State Education Department, Office of Professions.

### *Primary data were obtained from surveys of:*

- Fourteen state and regional health care associations representing hospitals, nursing homes, home health agencies and community health centers. Provider associations were asked about their members' use of dentists, NPs, MWs and PAs, recruitment and retention issues around those professions, use of NHSC or other incentives to recruit and retain these professionals. There was a 29 percent response rate to this survey.
- Four professional associations representing dentists, NPs, MWs and PAs in New York were asked to assess the job market in New York for their members; identify the percentage of members practicing in federally designated shortage areas, and specify the incentives that would most likely encourage their members to practice in underserved areas. One of the four professional associations responded to the survey, for a 25 percent response rate.
- All dental, NP, MW and PA education program directors in the state were asked about the average educational debt of new graduates, starting salaries for new practitioners, the in-state retention rate for their graduates and whether current provider incentive programs should be expanded to include other health care professionals. Fifty-eight programs were surveyed and 26 responded, for a 45 percent response rate.

## Data Limitations:

Low response rates to surveys as well as limited responses to specific survey questions make it difficult to draw any substantive conclusions from the analysis of survey responses. A more detailed analysis of the relationship between educational debt and educational program auspices has the potential to explain variation in educational debt by specialty, but the small number of responses precluded this analysis.<sup>2</sup>

<sup>2</sup> No survey responses were received from the MW education programs or professional associations.

## DANY IN THE CONTEXT OF WORKFORCE INCENTIVE PROGRAMS IN NEW YORK STATE

### Current Health Personnel Incentive Programs in New York State:

New York State has 1,450 providers obligated to work in underserved areas as a result of workforce incentive programs, of which almost one-quarter serve in rural areas (Table 1):

**Table 1. Service in Underserved and Rural Areas in New York State (as of May 2009)**

Program	Currently Serving (all)	Serving in Rural Areas	Percent Rural
NHSC	271	80	30%
Visa Waiver, Limited License	810	117	14%
<b>DOCTORS ACROSS NEW YORK (DANY) AWARDEES *</b>			
<i>Physician Loan Repayment</i>	83	59	71%
<i>Physician Practice Support</i>	126	63	50%
Regents Loan Forgiveness Award Program **	158	24	15%
<b>Total</b>	<b>1,448</b>	<b>343</b>	<b>24%</b>
<i>*Not all facilities may place recipients in stated areas. ** As of June 2008.</i>			

- The NHSC is a federal obligated service program. Under the NHSC **Loan Repayment Program**, eligible clinicians (physicians, NPs, MWs, PAs, dentists, hygienists and mental health professionals) can receive up to \$25,000 per year for obligated service in Health Professional Shortage Areas (HPSAs) in the first two years, then up to \$35,000 per year in the next two years to repay educational debt.
- The NHSC also has a **scholarship** program in which clinicians receive one year of full or partial scholarship funding (for medical, dental or other advanced practice health professional education) in exchange for one year of service in a high-need HPSA once they graduate.
- New York also operates **visa waiver and limited medical and dental license programs**, such as the New York “State 30” Visa Waiver Program, the Appalachian Regional Commission Visa Waiver Program, the New York State Limited License Program and Limited Dental License Program. Under these programs, non-U.S. clinicians are required to serve in underserved areas in exchange for gainful employment or a path to eventual citizenship.

## DANY to Date – Overview:

DANY is a state-funded initiative enacted in 2008 to help train and place primary care and specialty physicians in underserved communities. The multi-component DANY program was developed from policy recommendations compiled by the New York State Council on Graduate Medical Education (COGME) and presented to the New York State Commissioner of Health in March 2008 in a report titled: *Policy Recommendations to the Commissioner of Health*.

DANY is composed of six distinct programs, each designed to address a specific issue within the New York State health care system that has contributed to the physician workforce shortage and practice maldistribution within the state. DANY includes the following programs: (1) Physician Practice Support; (2) Physician Loan Repayment; (3) Ambulatory Care Training; (4) Physician Studies; (5) GME Innovations Pool/Empire Clinical Research Investigator Program (ECRIP); and (6) Diversity in Medicine/Post Baccalaureate Program.

Requests for Applications (RFAs) for the Physician Practice Support and Physician Loan Repayment Programs were released in October 2008 and awards for the first cohort of successful applicants were announced in March 2009. A contract was issued in 2009 to the Associated Medical Schools of New York (AMSNY) for the Diversity in Medicine/Post Baccalaureate Programs. The ECRIP component of the Graduate Medical Education (GME) Innovations Pool was enhanced as required by statute and awards have been made annually. The RFA for the Ambulatory Care Training Program is expected to be released in Spring 2010. Lastly, RFAs are in development for the Physician Studies Program and for the 2009 and 2010 funding of the GME Innovations Pool.

## DANY Physician Practice Support & Physician Loan Repayment Update:

Two DANY initiatives, the Physician Practice Support and Physician Loan Repayment Programs, encourage physicians to practice in underserved communities and specialties by providing financial incentives in exchange for work commitments.

In the 2008-09 cycle, all eligible applicants (i.e., those meeting the minimum qualifications) for both programs were granted awards. (Tables 2, 3 and 4 below illustrate the region, facility and funding amounts for these programs.)

The **Physician Practice Support Program** awarded \$11.1 million to successful applicants in March 2009. Physicians or medical facilities were eligible to receive an award of up to \$100,000. Awards are used to defray the costs of establishing or joining physician practices or to assist existing providers in their recruitment efforts to provide services in underserved areas over a two-year period.

There were 136 applicants for the Physician Practice Support Program, of which 126 applicants were granted awards. Thirty-nine grantees have recruited physicians and the award contracts are in process. The remaining 87 grantees are still recruiting physicians who meet the minimum requirements and can fulfill the award obligations (Refer to tables 2 and 4 below).

**Table 2. Physician Practice Support Awards by Award Type**

	Count	Total 2-year Award
<b><u>New York City</u></b>		
1. Individual Physicians	3	\$246,392
2. Facilities	31	\$2,751,000
<b><u>Rest-of-State</u></b>		
1. Individual Physicians	4	\$350,000
2. Facilities	88	\$7,763,115
<b>Program Total</b>	<b>126</b>	<b>* \$11,110,507</b>
* Note that the 2009-2010 Deficit Reduction Plan enacted in December 2009 reduced these award amounts by 12.5 percent.		

The **Physician Loan Repayment Program** awarded \$11.06 million to successful applicants in March 2009. Awarded physicians were eligible to receive awards of up to \$150,000 based on the level of verified, qualifying educational loan balances. Awards were distributed to physicians for the repayment of education loans in exchange for a five-year work commitment in a medically underserved region or specialty.

Physicians were eligible for funding under this program through one of two options. The first option, referred to as the Physician Loan Repayment Program, allowed physicians or health care providers to apply directly for funding. The second option, referred to as the Residency Loan Repayment Program Tracks, allowed teaching hospitals to request funding for a resident who agreed to complete training in a primary care or specialty track, offered by the hospital and approved by the DOH, and who would subsequently practice in medically underserved areas or specialties.

There were 92 applicants for the Physician Loan Repayment Program, of which 83 applicants were awarded grants. Four of the 83 successful applicants were granted awards under the Residency Loan Repayment Program Tracks option. Thirty-seven grantees have recruited physicians and contracts are in process. The remaining 46 grantees are still recruiting physicians who meet the minimum requirements and can fulfill the award obligations.

Awardees of both the Physician Practice Support and the Physician Loan Repayment Programs must identify a physician by April 1, 2010, to ensure award funding. All physicians must start their service obligation no later than September 30, 2010 (Refer to tables 3 and 4 below).

**Table 3. Physician Loan Repayment Awards by Award Type**

New York City	County	Total Award
1. Individual Physicians	2	\$300,000
2. Facilities	7	\$875,000
3. Tracks	3	\$375,000
<b>Rest-of-State</b>		
1. Individual Physicians	8	\$1,005,946
2. Facilities	62	\$8,354,000
3. Tracks	1	\$150,000
<b>Program Total</b>	<b>83</b>	<b>* \$11,059,946</b>
<p><i>* Note that the 2009-2010 Deficit Reduction Plan enacted in December 2009 reduced these award amounts by 12.5 percent.</i></p>		

**Table 4. Physician Loan Repayment & Physician Practice Support Awardees by Facility Type**

	Physician Loan Repayment Awardees		Physician Practice Support Awardees	
<b>New York City</b>				
1. Individual Physicians		2		3
2. Facilities		7		31
	Hospitals	5	Hospitals	10
	Clinics	2	Clinics	11
	Private Practices	0	Private Practices	10
3.Track Award		3		N/A
<b>Rest-of-State</b>				
1.Individual Physicians		8		4
2.Facilities		62		88
	Hospitals	38	Hospitals	53
	Clinics	21	Clinics	25
	Private Practices	3	Private Practices	10
3.Track Award		1		N/A
<b>TOTAL:</b>		<b>83</b>		<b>126</b>

## PRIMARY AND SPECIALTY MEDICAL CARE IN NEW YORK STATE

### HPSAs and Medically Underserved Areas /Populations (MUA/Ps) in New York State:

HPSAs are federally designated areas or facilities in which a demonstrated shortage exists of primary care, dental or mental health physician providers. These areas are used, among other purposes, for eligibility for state and federal loan repayment and scholarship programs and for enhanced Medicare payments for physician services. MUA/Ps are similar, but are used for eligibility for federal “section 330” federally qualified health center or “lookalike” status and grants.

Currently, there are 179 federally designated primary care HPSAs in New York (Table 5).<sup>3</sup> One-half are facility designations and most of these facilities are federally funded health centers. About one-third of designations are geographic and 20 percent are special population designations (e.g., low income, Medicaid eligible).

**Table 5. Currently Designated Primary Care HPSAs in New York, by Type of Designation**

	Frequency	Percent
Whole County	8	4%
Service Area	49	27%
Special Population	35	20%
Facility	87	49%
<b>Total</b>	<b>179</b>	<b>100%</b>

Nearly one-quarter (4.6 million) of New Yorkers reside in geographic or special population HPSAs. Primary care HPSAs are often found in New York’s poorest communities. While about 300 primary care physicians would be needed to eliminate all the geographic and special population shortage designations, more than 1,400 primary care physicians would be needed to achieve a 2,000:1 population-to-primary care provider ratio in these communities.<sup>4</sup>

### Health Outcomes of HPSA Residents:

New Yorkers who live in geographic or special population HPSAs are more likely to be hospitalized for ambulatory care sensitive conditions<sup>5</sup> (18 percent) compared to New Yorkers who do not live in HPSAs (13 percent). Of these, the largest differences are in severe ear, nose and throat infections (4 percent in non-HPSAs versus 6 percent in HPSAs), asthma (1 percent versus 3 percent) and dental conditions (1 percent versus 2 percent).

<sup>3</sup> Health Resources and Services Administration. HRSA Geospatial Data Warehouse. U.S. Department of Health and Human Services, n.d. Web. 2 November, 2009.

<sup>4</sup> Ibid., 18 November, 2009.

<sup>5</sup> Statewide Planning and Research Cooperative System. SPARCS. New York State Department of Health, n.d. November 2009. (Note: these conditions refer to hospitalizations that could have been prevented had appropriate primary care services been available or utilized.)



## Health Outcomes of HPSA Residents: (CONTINUED)

Some of this differential may be explained by cultural differences in personal health behaviors, rather than access to primary care providers. Despite the fact that health-related behaviors may affect the number of persons with diseases such as diabetes and asthma, proper management of these diseases through access to health care providers could prevent most hospitalizations. Furthermore, it should be noted that severe ear, nose and throat infections were one of the conditions where the disparity was most pronounced, and these infections are much less influenced by personal health behaviors.

## Physician Workforce Shortage in the United States:

Recent studies have projected a shortage of physicians that will impact access to health care services nationally. Since 2002, there have been at least 24 studies of national and state physician workforce needs. These studies indicate both regional shortages of physicians as well as a lack of medical specialties in many states, including New York.

Physician workforce studies generally employ a supply-and-demand model when projecting workforce needs. A physician workforce shortage occurs under this model when the demand for medical services exceeds the supply of physicians capable of providing such services.

The demand for medical services has increased in the United States. National health care reform efforts focus largely on expanding health insurance coverage to more Americans, which will substantially increase the number of individuals seeking health care services. Moreover, not only is the United States population growing by 25 million per decade, but the number of Americans reaching age 65 is expected to double to approximately 89 million by 2050. Major and chronic illnesses are far more prevalent among the elderly, and people 65 and older make twice as many physician visits as those under 65.

The supply of physicians in the United States, however, has not increased in proportion to the demand for medical services. The United States continues to produce approximately the same number of physicians each year. Moreover, the national physician workforce is aging. It is expected that by 2020 as many as one-third of currently practicing physicians will retire.

In response to these projections, a number of policies have been recommended to increase physician supply within the United States. The Association of American Medical Colleges (AAMC), for example, called for a 30 percent increase in medical school enrollment by 2015. United States Senators Schumer, Nelson and Reid introduced the Resident Physician Shortage Reduction Act of 2009, which calls for increasing the number of Medicare-funded residency training positions by 15 percent nationally.

## Physician Workforce Shortage - New York State:

A physician workforce shortage already has begun to manifest in New York State. Shortages were first apparent in primary care fields, but there is increasing awareness that shortfalls will be felt in many previously well-supplied procedural and cognitive specialties. For example, the number of general surgeons has declined by 14 percent statewide over the last five years. Equally important, seven New York counties currently have no OB/GYNs practicing obstetrics and 24 counties have no child psychiatrists.

One reason for this maldistribution is the difficulty in recruiting and retaining practitioners in underserved areas due to the lower pay scales relative to specialty care as well as to providing primary care in the “served” areas.

A national survey<sup>6</sup> of 12,000 physicians found that 78 percent believed there was a shortage of primary care doctors. In that same survey, more than 90 percent said the time they devote to non-clinical paperwork had increased in the last three years and 63 percent said this had caused them to spend less time with each patient. Eleven percent said they planned to retire and 13 percent said they planned to seek a job that removes them from active patient care. Twenty percent said they would cut back on patients seen and 10 percent planned to move to part-time work. Seventy-six percent of physicians said they were working at “full capacity” or “overextended and overworked.”

Finally, a study by Robert Bowman, M.D. found that physicians are concentrated in locations and careers that fail to serve the majority and the most urgent medical needs, including the elderly, 70 percent of whom live in 38,000 zip codes with only 23 percent of physicians and 65 percent of the U.S. population.<sup>7</sup>

## Prognosis – Physician Supply in New York State:

Physician shortages within the state are unlikely to ameliorate any time soon. Although the number of physicians practicing in New York continues to grow, so is the demand for physician services, especially in light of likely increases in insurance coverage from national health care reform and the aging of the population. A 2009 supply/demand analysis by CHWS found that the greatest gaps between physician supply and demand are projected in regions where demand was forecast to grow most rapidly, and that current shortages will only worsen. [New York Physician Supply and Demand Through 2030](#), a comprehensive report on the New York State physician workforce provided by CHWS, forecasts a gap of between 2,500 and 17,000 physicians in New York State by 2030.<sup>8</sup>

<sup>6</sup> “National Survey Finds Numerous Problems Facing Primary Care Doctors, Predicts Escalating Shortage Ahead.” [physiciansfoundations.org](#). Physicians’ Foundations, 18 November, 2008. Web. November 2009. See also: Mirkin, Gary S. “A Perfect Storm of Paperwork, and Lower Reimbursements are Driving PCPs and Pediatricians Away.” *NY Newsday*, 8 January, 2009. Web. November 2009.

<sup>7</sup> Bowman, M.D., Robert. “Doctors Are Where Patients Aren’t”. *Daily Yonder*, 12 February, 2009. Web. November 2009.

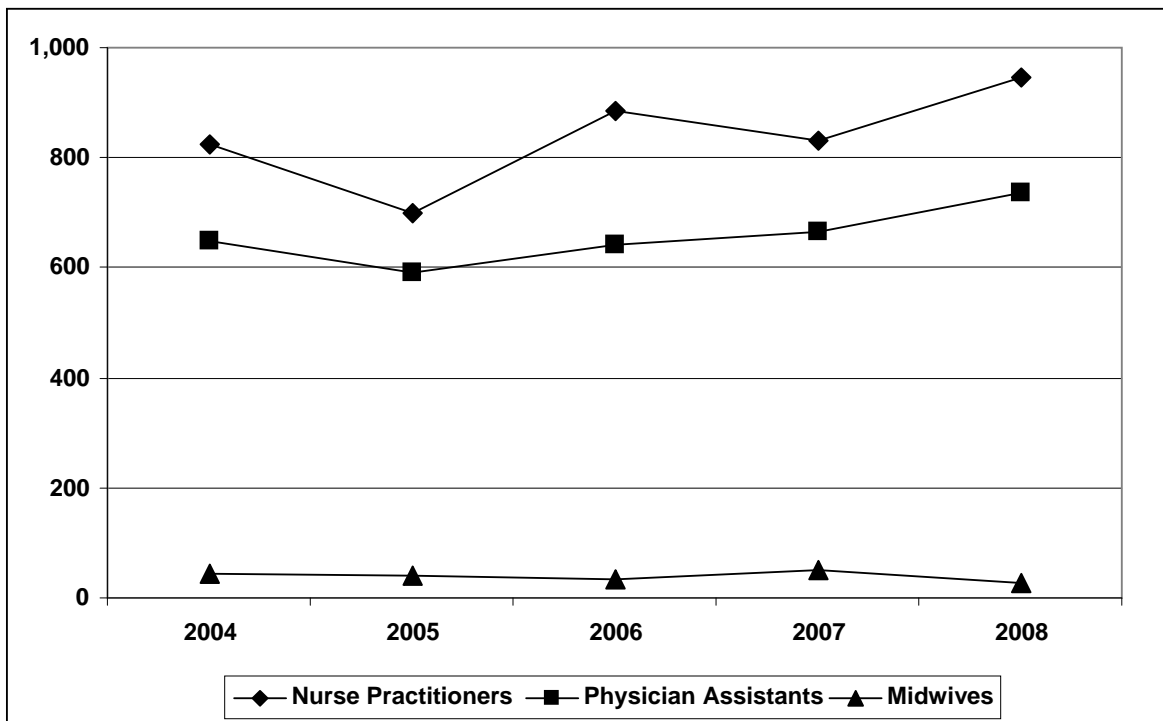
<sup>8</sup> Armstrong, D.P. and Forte, G.J. “New York Physician Supply and Demand through 2030: Executive Summary”. *Center for Health Workforce Studies at SUNY Albany*, March 2009. Web. November 2009.

## Nurse Practitioner, Midwife, and Physician Assistant Issues:

NPs, MWs and PAs are health care professionals with advanced academic and clinical experience that enables them to diagnose and manage acute, episodic and chronic illness, independently or as part of a health care team. They also make important contributions to primary care capacity in the state. PAs are licensed to practice medicine with physician supervision. NPs are registered nurses (RNs) who have advanced training within a specific area of medicine. Licensed MWs care for the health needs of pre-adolescent, adolescent and adult women throughout their lives.

As shown in Figure 1, new licenses issued to NPs and PAs in New York have increased substantially between 2004 and 2008 (15 percent and 14 percent, respectively), while new licenses for MWs have declined by 36 percent. It should be noted, however, that the trends for new licenses issued to NPs and MWs have been unsteady, with declines followed by increases year-to-year.

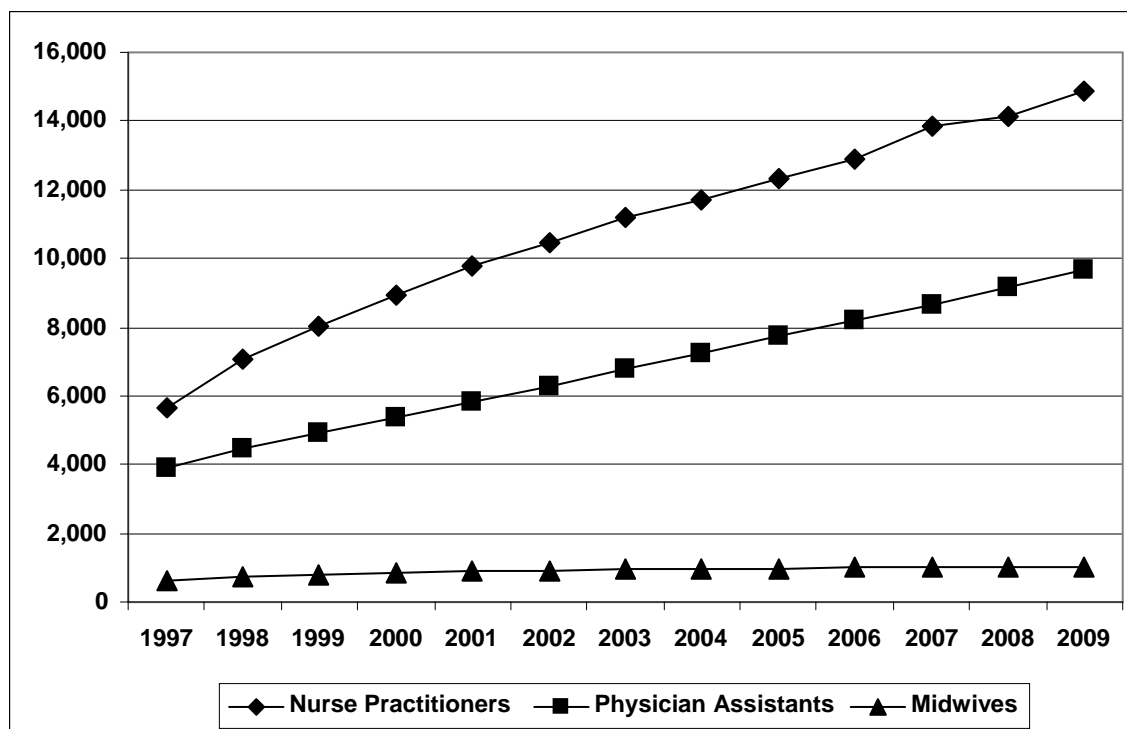
**Figure 1. Licenses Issued, Past Five Calendar Years**



Source: New York State Education Department, Office of the Professions

Perhaps a more reliable look at trends can be drawn from the total number of licensed NPs, MWs and PAs in New York between 1997 and 2009 as shown in Figure 2. The trends here are much steadier, even during the same time span shown above.

Since 1997, however, the growth in licensed NPs and PAs is especially dramatic (163 percent and 149 percent, respectively), and suggests the potential for a new model of care in which preventive medicine and routine treatments can increasingly be provided by NPs and PAs. The growth in the number of licensed MWs during the same period is more moderate but still quite robust (59 percent).

**Figure 2. NPs, MWs and PAs per 10,000 Population, New York, 1997-2009**

Source: New York State Education Department, Office of the Professions

Currently, there are no comprehensive sources of data on NPs, MWs and PAs in New York. To fill this void and collect the data necessary for assessing the contribution of these professionals to primary care capacity in the state, the CHWS will soon conduct re-registration surveys for NPs, MWs and PAs. These surveys will provide data on the demographic characteristics and practice characteristics of NPs, MWs and PAs (including practice setting and location) in New York.

## Outreach to Interested Parties:

Part of the legislative mandate for this report called for “[...] consultation with representatives of the affected professions, educational institutions and training programs that educate and train people for those professions, appropriate health care providers, affected communities and other interested parties.”<sup>9</sup> To this end, the DOH and CHWS developed and disseminated a set of three surveys to these parties between October 9 and 23, 2009 (see research methods section above for more information). Below are the results of these surveys.

## Provider Association Survey:

Hospital associations in the state indicated that most of their members used NPs, PAs and, to a lesser extent, MWs. A nursing home association reported that less than half their members used NPs and PAs and none used MWs. According to their provider association, less than one-quarter of health centers employ NPs, MWs and PAs.

<sup>9</sup> See New York State Public Health Law Article 28, Section 2807-m for the complete legislative mandate.

## **Provider Association Survey:** (CONTINUED)

Provider associations indicated that their members reported problems recruiting and retaining these health care professionals, as follows:

- Hospitals had the greatest difficulty with NPs and PAs and, to a lesser extent, MWs;
- Health centers had the most difficulty with PAs; and
- Nursing homes experienced the most difficulty with NPs.

Provider associations indicated their members used a wide range of incentives to recruit and retain NPs, MWs and PAs, including income guarantees, on-call payments, sign-on bonuses, and support for professional development and training.

## **Educational Program Survey:**

A survey of NP, MW and PA education program directors in the state revealed differences in educational debt and starting salaries for PAs and NPs. The majority of PA education programs reported that student debt for newly graduated PAs was at least \$75,000, and most NP programs reported educational debt of less than \$50,000. Program directors also reported higher starting salaries for PAs compared to NPs. The starting salary for a newly trained PA was at least \$75,000, while the starting salary for a newly trained NP fell between \$50,000 and \$74,999.

Program directors also reported that many of their graduates stayed in New York to practice. Most NP program directors reported that at least 80 percent of their graduates remained in New York, while 44 percent of PA educational programs reported that at least 80 percent of their graduates remained in New York.

## ORAL HEALTH CARE IN NEW YORK STATE

### Dental HPSAs in New York:

Currently, there are 113 designated dental HPSAs in New York. Most of these are facility designations (59 percent), while 7 percent are geographic, and 34 percent are population groups. Population group designations primarily target low-income or Medicaid-eligible New Yorkers. The majority of dental HPSAs statewide are located in metropolitan areas rather than non-metropolitan areas (68 percent versus 32 percent). Overall, an estimated 222 dental full-time equivalents (FTEs) would be needed in New York to eliminate the dental shortage designations, (i.e., meet a minimum 4,000:1 ratio) while 371 dental FTEs would be needed to achieve a 3,000:1 population-to-dentist ratio.<sup>10</sup>

### Dental Outcomes of Dental HPSA Residents:

In *Oral Health in America: A Report of the Surgeon General*, published in 2000, the Surgeon General called for action to promote access to oral health care for all Americans, especially the disadvantaged and minority children found to be at greatest risk for severe medical complications resulting from minimal oral care and treatment. For instance, people living in the boundaries of either a geographic- or population-based dental HPSA are more likely to be hospitalized for ambulatory care sensitive dental conditions compared to people who do not live in dental HPSAs. Nearly 2 percent of hospitalizations among New Yorkers in dental HPSAs, compared to 1 percent of hospitalizations among New Yorkers not living in dental HPSAs, were for dental conditions, a small, but statistically significant, difference.

### Dentist Supply Issues:

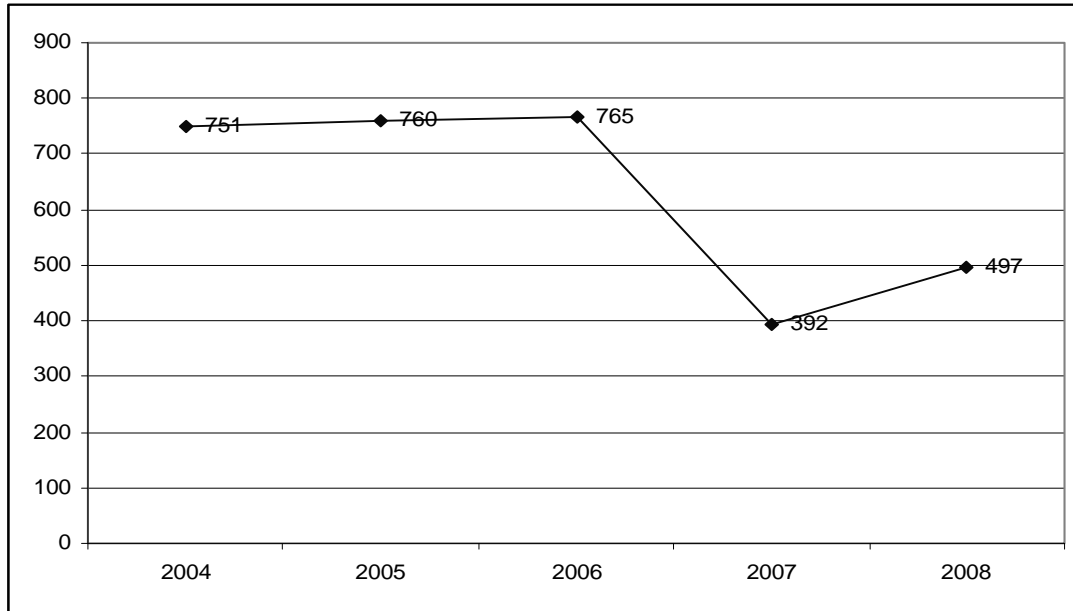
As shown in Figure 3, new licenses issued to dentists in New York have declined substantially between 2004 and 2008 (34 percent). It should be noted, however, that the trend for new licenses has been unsteady, with large declines between 2006 and 2007 followed by an increase between 2007 and 2008 (although still not to 2006 levels). The sharp decline in the number of newly licensed dentists in New York State in 2007 has been attributed to a new training requirement that took effect that year. Beginning January 1, 2007, graduates of dental schools were required to complete an approved residency program of at least one year's duration as a prerequisite for initial licensure in New York State.

<sup>10</sup> Health Resources and Services Administration. HRSA Geospatial Data Warehouse. U.S. Department of Health and Human Services, n.d. Web. 19 November, 2009. (Note: According to HRSA, an area is underserved for all populations if the dentist-to-population ratio is 5,000:1; and underserved for special populations like low-income and Medicaid-eligible populations if the dentist-to-population ratio is 4,000:1.)

## ORAL HEALTH CARE IN NEW YORK STATE

(CONTINUED)

**Figure 3. Licenses Issued, Past Five Calendar Years**



Source: New York State Education Department, Office of the Professions

Currently, the American Dental Association (ADA) is developing a Children's Oral Healthcare Access Atlas that will describe the distribution of dental workforce in all counties and 19 metropolitan areas in New York State. In addition, the CHWS has initiated re-registration surveys of dentists and dental hygienists for assessing dental care capacity. The survey provides data on the demographic characteristics and practice characteristics for both professions (including practice setting and location).

According to a preliminary analysis of re-registration survey responses from dentists licensed in New York, the CHWS found that the majority of dentists were non-Hispanic white (80 percent) and male (77 percent). Most dentists (90 percent) reported working in private practices. When asked about dental shortages in the state, the most frequently cited specialties with shortages were pediatric dentistry (25 percent) and public health dentistry (22 percent).<sup>11</sup>

<sup>11</sup> Continelli, T. and Martiniano, R.P. "Preliminary Findings from the New York Dentist Re-registration Survey". *Center for Health Workforce Studies*. State University of New York at Albany, July 2009. Web. November 2009.

## ORAL HEALTH CARE IN NEW YORK STATE

(CONTINUED)

### Dental Supply/Demand Gaps:

According to the New York State Oral Health Plan,<sup>12</sup> “While the state has one of the best population-to-dentist ratios in the country, the distribution of practitioners is uneven. There are many rural and inner-city areas of the state where shortages of dentists and dental hygienists exist and specialty services may not be available.”

A study coordinated by DOH’s Bureau of Dental Health has concluded that the number of dentists registered to practice dentistry in New York State declined from 16,872 in 1997 to 15,291 in 2006. According to ADA data, there are currently 13,552 dentists in active practice in New York with a median age of 52.<sup>13</sup> Almost one in four dentists in New York State has been in practice for more than 30 years. About 24 counties have emerging shortages, with only one dentist for every 3,000 people (Figure 4), the rate at which HRSA considers an area “over-utilized.” Most of these counties are rural.<sup>14</sup>

In addition, the \$250,000 cost of establishing a dental practice is higher than the cost of establishing a physician's office.<sup>15</sup>

Finally, while the NHSC aims to increase by 100 percent the number of NHSC-obligated providers, which include dentists, through federal fiscal year 2011,<sup>16</sup> this would only provide an additional 50-60 dental practitioners annually in New York State in the next two years. Therefore, as these additional 100-120 dentists would not meet the estimated need of 371 additional dentists, DOH does not anticipate that the NHSC-obligated providers will completely fill the gaps in New York’s underserved areas. DOH does, however, recognize that it will need to maximize the areas in which NHSC-obligated dentists may practice by assuring the designation and re-designation of all qualifying dental HPSAs in the state.

<sup>12</sup> “Oral Health Plan for New York State”. Oral Health Plan. New York State Department of Health, August, 2005. Web. November 2009.

<sup>13</sup> American Dental Association. “Distribution of NY Dentists in Active Practice” ADA 2008. Web. November 2009. (Note: “Active practice” is defined as delivering care to patients full or part-time and being under the age of 75.)

<sup>14</sup> Office of the Professions. “License Statistics”. New York State Education Department, n.d. Web. November 2009.

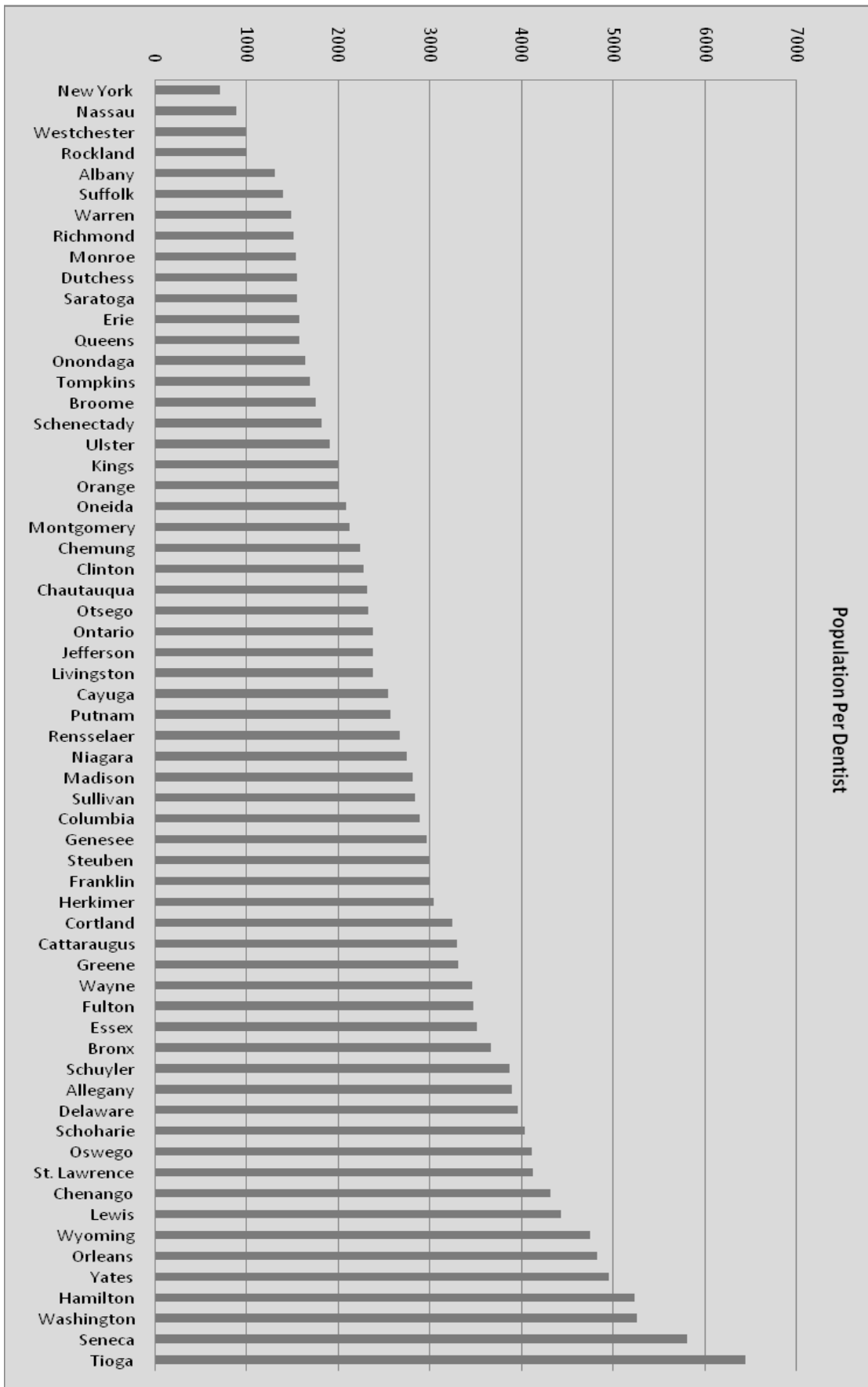
<sup>15</sup> “Survey of Dental Practice Reports”. Ada.org. American Dental Association, 2006. Web. November 2009.

<sup>16</sup> ARRA provides \$300 million to support NHSC. Approximately \$200 million will enable the NHSC Loan Repayment Program to assist more than 3,300 physicians, dentists and other primary care providers who are seeking opportunities to serve in the U.S; about \$12 million in federal fiscal year 2009 and 2010 will go to support NHSC practitioners in NYS.



# ORAL HEALTH CARE IN NEW YORK STATE (CONTINUED)

Figure 4: Population Per Practicing Dentist By County, New York State 2008



## ORAL HEALTH CARE IN NEW YORK STATE

(CONTINUED)

### **Provider Association Survey – Dentists:**

Provider associations reported that all nursing homes use dentists, while less than half of health centers use dentists and about 25 percent of hospitals use dentists. Health centers indicated a significant issue around the recruitment and retention of dentists, while hospitals and nursing homes reported less difficulty recruiting services from dentists.

Health centers were the only providers reported to use incentives for recruiting or retaining dentists, including sign-on bonuses, income guarantees, relocation allowances and support for professional development and training.

### **Educational Program Survey – Dentists:**

The survey of dental educational programs indicates both high starting salaries and high educational debt. Dental programs responding to the survey indicated educational debt of their students coming out of school of at least \$100,000 (a graduating dentist has educational debt of \$145,465)<sup>17</sup> and starting salaries of at least \$100,000. Dentists were less likely than NPs or PAs to stay in New York after graduating. Only 40 percent of the educational programs reported that 80 percent of graduates remained in New York after graduating. Another 40 percent reported that only between 20 percent and 39 percent remained in New York after graduating.

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<sup>17</sup> Harris, Tracy. "The U.S. Oral Health Workforce in the Coming Decade: Workshop Summary". Board of Health Care Services. Institute of Medicine of the National Academies, 2009. Web. November 2009. (Note: The educational debt averaged \$158,104 for graduates in the U.S. in 2006.) See also: Hamilton, Janyce. "2008-09 Economic Outlook For Dentistry: Income, Expenses and Patients' Discretionary Spending Decisions". Chicago Dental Society, 1 October, 2008. Web. November 2009.

## RECOMMENDATIONS

*DOH data analysis indicates that there is an immediate need for dentists in certain rural and inner city areas within New York State. Consideration should be given to expanding the DANY Loan Repayment Program to include dentists in future budget years when the fiscal climate improves in New York State.*

Existing data on the supply and distribution of dentists in New York show that there is an overall decline in the number of dentists, shortages of dentists in underserved areas and that dentists have high levels of educational debt and substantial financial burdens establishing a dental practice.

Although NHSC support for dentists has been expanded through ARRA funding in the short term, it is unlikely that the additional 50-60 dentists supported annually (currently 59 as of June 2009) would meet the gap of 371 dentists needed in underserved (dental HPSA) areas over the next few years.

A survey commissioned for this report showed that of all types of providers, only health centers reported offering incentives to recruit or retain dentists. The survey, submitted by the Community Health Center Association of New York (CHCANYS), also indicated that current incentives may not be sufficient. Thus, it is likely that adding dentists to the DANY Loan Repayment Program in future budget years would help address the additional need for dental services in underserved areas.

It should be noted that approaches aside from offering loan repayment can be utilized to attract dentists to underserved regions throughout the state. These approaches include utilization of NHSC programs, sign-on bonuses and payment of malpractice insurance premiums. These alternatives are outside the scope of this report.

*Data are needed to assess the supply, distribution, work locations and impact of existing incentives on Nurse Practitioners (NPs) and Physician Assistants (PAs) in New York State before considering whether the DANY Loan Repayment Program should be extended to these professions.*

There is limited data on the demographics and practice characteristics of NPs, MWs and PAs, so it is difficult to gauge the extent to which these practitioners would respond to incentives such as those provided by the DANY Loan Repayment Program and serve in underserved areas. This would need to be addressed in the coming years as survey capabilities “gear up.”

## RECOMMENDATIONS (CONTINUED)

Provider associations indicated their members use a wide range of incentives to recruit and retain NPs, MWs and PAs, including income guarantees, on-call payments, sign-on bonuses and support for professional development and training. A survey commissioned for this report and submitted by HANYS indicated that the vast majority of HANYS members used NPs and PAs, but less than half reported recruitment difficulties. The supply of licensed NPs and PAs is growing; however, it is not clear if this has resulted in an increased presence in underserved areas as the competition for jobs increases.

Finally, the ARRA will double the number of NHSC-obligated providers, which include primary care NPs, MWs and PAs, through federal fiscal year 2011.<sup>18</sup> Currently, 69 NHSC-obligated primary care providers are practicing in underserved areas in New York State (consisting of 16 NPs, 15 MWs and 38 PAs).<sup>19</sup> It is likely that this number will increase over the short term. We recognize that DOH will need to maximize the areas in which NHSC-obligated NPs, MWs and PAs may practice by assuring the designation and re-designation of all qualifying primary care HPSAs in the state.

We recognize that NPs, MWs and PAs help address physician shortages by providing services where the need is greatest. In addition, because a greater percentage (compared to physicians) of NPs, MWs and PAs who graduate from New York schools remain in state and their educational debt levels are lower than those of physicians, extending DANY loan repayment eligibility to clinicians such as NPs, MWs and PAs may be both cost-effective and conducive to the retention of health care personnel in underserved areas.

DOH will continue to review data on NPs, MWs, and PAs, including ARRA recruitment assistance, to assess whether the DANY Loan Repayment Program should be extended to mid-level providers.

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<sup>18</sup> Refer to footnote 19 for information regarding ARRA.

<sup>19</sup> This includes all providers obligated to the NHSC as well as those who have completed their obligations and remain in underserved areas as of June 2009.