Summary and Evaluation of the RAND Corporation's Assessment of the New York Health Act: What Can We Learn from RAND about What Single Payer Will Cost? And What Will It Save?

Prepared by Leonard Rodberg, PhD[1] -- October 2018

Executive Summary

The New York Health Act (NYHA) would provide health coverage for every resident of New York, with no premiums, deductibles, or co-pays. Benefits would be fully comprehensive including preventive services and care coordination, dental, hearing, optical, drug, and mental health care. Long-term care would be covered within two years after passage of the legislation. NYHA would be financed through a progressively-graduated payroll tax, paid 80% by employers and 20% by employees, along with a progressively-graduated tax on non-payroll (investment) income.

In response to a request from the New York State Health Foundation, the RAND Corporation performed a study of the impact on health care use and spending of this comprehensive legislation. The principal finding of the RAND report is that NYHA would cover everyone, improve benefits without cost-sharing, cost no more than we are now spending, and provide savings for most New Yorkers. RAND's specific findings are:

- NYHA will expand health care coverage in New York without increasing overall spending through reduced costs of administering the health plan, reduced provider administrative costs, and lower negotiated drug prices.
- Total health care spending would be 2.3% below spending in the status quo, which RAND projects to be $311.2 billion in 2022. Savings would grow over time as these efficiencies take hold.
- In RAND's "base" case, $139 billion in new taxes would replace $141 billion in insurance premiums and out-of-pocket spending.
- Health care payments would decrease for 90% of New Yorkers by an average of $2,800 per person and would increase among the highest-income residents.
- Employers not offering health benefits to their employees today would see an average tax increase of between $1,200 and $1,800 per worker in 2022. This is less than one-half of what health insurance would cost them today.
- There would be a 2% increase in overall state employment (about 180,000 jobs).

RAND used conservative assumptions for estimating program savings, but offered several alternative assumptions based on published research and analysis. These alternatives suggest significantly greater savings in health plan administration and drug and medical device

[1] Leonard Rodberg is Professor Emeritus of Urban Studies at Queens College/CUNY and Research Director of the NY Metro Chapter of Physicians for a National Health Program

pricing. We have also considered provider administrative savings, where RAND does not offer an alternative but where published studies suggest further savings. We find that RAND severely underestimated administrative savings for health care providers, including hospitals and physician practices.

The totality of alternatives lead to net savings of $38.1 billion, or 12.3%, for 2022 as compared with RAND's projection for the status quo. The revenue that NY Health taxes would have to raise is then estimated to be $103.3 billion.

These greater projected savings enable improvements and additional coverage to be incorporated into NYHA while still keeping overall spending no greater than what we now spend. These include:

- Raising all physician payment rates to the level currently paid by commercial insurance ($8.8B)
- Paying Medicare Part B premium by the NY Health Fund ($8.5B)
- Paying county Medicaid payments ("local share") by the NY Health Fund ($8.3B)
- Incorporating universal long-term care into NYHA ($18.0B added cost and $11B in current out-of-pocket spending)

The Medicare Part B and local share payments and a portion of the long-term care cost are shifts from current spending, not new spending. Overall spending would still be 3.6% below the status quo projection. New taxes of $157.9 billion would be required under this scenario.

RAND proposed a tax structure which, while progressive overall, imposes new taxes on low-income residents, who today receive care at no cost, and it taxes a dollar earned at $27,500 (the poverty level for a family of four) at the same rate as a dollar at the $141,200 level. We suggest an alternative tax structure similar to one proposed earlier by Prof. Gerald Friedman. This tax plan, which does not tax low-income residents and is progressive throughout the income range, is preferable to that proposed by RAND.

RAND reviewed the question of Federal waivers and expressed concerns about whether they would be available under the current administration. We suggest that, while waivers allowing simplified, unified funding would be desirable, the new single payer publicly-funded system can be operated, if necessary, without receiving such waivers.

1. Introduction

The principal finding of the RAND report is that the New York Health Act (NYHA) would cover everyone, improve benefits without cost-sharing, and provide savings for most New Yorkers. We welcome this important finding that New York can afford a universal single payer health care system with no financial barriers at the point of service.

While RAND's "base" case shows only minimal savings, the study offers alternative assumptions that show much more substantial savings and lower costs. These alternative assumptions are consistent with the findings of many authoritative studies as well as historic experience. This report describes this in detail in sections 3, 6, and 7 below. Using RAND's alternative assumptions, and correcting its error on provider administrative costs, we find that the NYHA, even including substantial improvements and covering long-term care, would achieve significant savings in 2022, and these would increase in future years.

The NYHA would be paid for by progressively-graduated taxes on payroll income and currently-taxable non-payroll income (e.g., capital gains and dividends), with specific income brackets and rates to be enacted through an Executive budget proposal within a year of enactment of the NYHA. The RAND study used a hypothetical set of brackets and rates. An alternative set, based more closely on ability to pay, is described and analyzed below.

2. Purpose of the Study

In response to a request from the New York State Health Foundation, the RAND Corporation performed a study[2] of the impact on health care use and spending of this comprehensive, ground-breaking legislation. The study provides results reflecting a set of 'base" case assumptions as well as results under alternative assumptions. For the first time, it provides an evaluation of the impact of adding long-term care services to NYHA.

3. Background

NYHA would create a publicly-funded single payer health plan called NY Health. The plan would cover all residents of New York State and would provide comprehensive health care with no deductibles, co-pays, or restrictive provider networks. The bill does not currently include long-term care but will likely be amended to do so in 2019. NY Health would be financed through existing federal and state government funds and new progressively graduated state taxes on payroll and currently-taxable non-payroll (investment) income.

There have been at least two dozen economic analyses of single payer plans since the early 1990s. These include studies of both national plans and state-level plans conducted by such organizations as the Lewin Group (a subsidiary of UnitedHealth since 2007), the Urban Institute,

[2] RAND Summary: https://www.rand.org/pubs/research_briefs/RB10027.html
RAND Full report: https://www.rand.org/pubs/research_reports/RR2424.html

and the RAND Corporation. Others have been conducted by persons and groups identified as supporters or opponents of single payer health care. All have reached the same general conclusion: Everyone can be insured for comprehensive care at a cost of no more than we are now spending. Most studies find net savings ranging from a few percent to 15% or so.

In 2015, the Campaign for New York Health, the principal organization advocating for NYHA, sponsored an economic study of NY Health by Prof. Gerald Friedman, Professor of Economics at University of Massachusetts/Amherst. Prof. Friedman had previously conducted studies of HR.676, the national single payer legislation sponsored by Rep. John Conyers, as well as single payer plans in Pennsylvania, Rhode Island, Oregon, and elsewhere. Prof. Friedman, assuming implementation starting in 2019, projected overall savings for NY Health of 15.6%, or $45 billion.

4. Issues to Consider in Conducting and Evaluating Single Payer Studies

A number of issues are unique to the transition to a single payer system, and these have to be included in any study of such a plan. These include cost reductions or savings due to simplified financing with a single payment agency:

- Sharply reduced cost of running the program, replacing insurance company administrative and marketing costs and profits
- Reduced health care provider administrative costs processing bills and handling disputes with insurance companies
- Lower drug prices through enhanced ability to negotiate with drug companies
- Elimination of employer health benefit administrative costs, including state and local government employer costs

There is, on the other side, added spending through expanded coverage and benefits:

- More health care received by the formerly uninsured
- Additional utilization of health care by the formerly underinsured, as a result of eliminating cost-sharing
- Potential for enhanced payments for providers currently dependent on Medicare and Medicaid reimbursement
- Compensation and retraining of workers displaced as a result of administrative cutbacks
- Taking over payment of Medicare Part B premiums as well as other premiums and cost-sharing by Medicare recipients who would now be eligible for comprehensive services like all other New Yorkers without making such payments.

5. Overall Findings of the RAND Study

The key message of the RAND study is that, even using very conservative assumptions, NYHA is affordable to New Yorkers, will reduce spending for almost all of us, and will benefit the state's economy. NY Health would cost less than we will spend if we continue with the status quo. More realistic assumptions, some of which RAND provides, yield even greater savings than those in its base case.

These are the study's main conclusions:

- The New York Health Act will expand health care coverage in New York without increasing overall health spending through reduce costs of administering the health plan, reduce provider administrative costs, and lower negotiated drug prices.
- Total health care spending would be slightly less than spending in the status quo in 2022.
- Savings would grow over time as these efficiencies take hold.
- Regressive premiums, deductibles, copays, and out-of-network charges would end. Instead, health care would be financed by taxes based on ability to pay. In RAND's "base" computation, $139 billion in new taxes would replace $141 billion in premiums and out-of-pocket spending.
- Depending on how progressive the new tax rates are, health care payments would decrease for 90% of New Yorkers by an average of $2,800 per person and would increase among the highest-income residents.
- Employers not offering health benefits to their employees today would see an average tax increase of between $1,200 and $1,800 per worker in 2022. This is less than one-half of what health insurance would cost them today.
- There would be a 2% increase in overall state employment (about 180,000 jobs) due primarily to a progressive reduction in health care costs, leading to more disposable income among low- and moderate-income households. They have a greater "propensity to spend" than upper-income households; that is, they spend a larger share of any additional income, which increases consumption and, in turn, employment.

The RAND "base case" assumes that Federal funds for Medicaid, Medicare, and ACA subsidies will continue to flow to New York. Provider reimbursement rates under NY Health will be equal to the current average rate across payers – Medicare, Medicaid, and commercial insurers -- so there is no reduction in the average payment to providers.

Health care use under NYHA would rise because, with universal coverage and no cost-sharing, New Yorkers, especially the uninsured, the underinsured, and those with low income, would use more health care than at present. Using its microsimulation computer models, RAND estimates that patient demand for hospital care would increase by around 10% and for physician services by around 15%. However, RAND estimates that the actual quantity of services delivered would increase by only half that much because of limits in the supply of services, leading to what RAND calls "congestion" or wait times.

However, historic experience – including the introduction of the Medicare program in the 1960s, the initiation of universal programs in Canada, Taiwan, and elsewhere, and state Medicaid expansions -- show no evidence of significant "congestion" or long waiting times. Physicians and hospitals apply standard medical scheduling practices to take the most urgent cases first, and there is little or no "pileup" in medical offices. Further, freed of the burden of billing- and insurance-related administrative work, doctors and nurses will have more time to see patients, further ameliorating any possible "congestion".

RAND also expresses concern about the viability of a progressive tax schedule. It says that, if only a small percentage of the highest-income residents find ways to avoid taxes, or even move out of the state to avoid them, the schedule would need to be reshaped, increasing the burden on middle- and lower-income residents. However, there is little evidence of this happening when state taxes have been raised on the wealthy in the past. In fact, New York appears, for a variety of reasons, to be increasingly attractive to the wealthy in the recent period.

6. RAND's Detailed Conclusions regarding the Health Care Economy of New York State today and under the New York Health Act

Currently, these are the principal sources of insurance coverage in New York State:

Table 1

Source of coverage	Population (millions)
Employment-base private insurance	9.4
Individual (non-group) insurance	1.8
Medicaid, Essential Plan & CHIP	4.3
Medicare	2.4
Dual Medicaid and Medicare	1.0
Uninsured	1.2
Total	20.1

Under NYHA, everyone would be covered through the state program. Health care expenditures currently projected for 2022 are as follows:

Table 2

Source of Health Care Funding	Payments ($2022 billion)
Employer-based private insurance	84.8
Individual (non-group) private insurance	10.4
Federal government (Medicare, Medicaid, etc.)	120.5
State government (Medicaid, etc.)	34.1
Other miscellaneous payments	27.8
Out-of-pocket payments	33.5
Total	311.1

Note that Tables 1 and 2 have been revised slightly from those presented in the RAND study, though the totals are retained unchanged. The changes are explained in Appendix A.

NYHA taxes would replace the private insurance premiums and a portion of the out-of-pocket payments. (Some out-of-pocket payments would continue, such as those for non-medically-necessary services and over-the-counter, non-prescription drugs. A substantial portion of current out-of-pocket spending is for long-term care, which would be covered by NY Health if the bill is amended to include it.)

These are the results of RAND's base case for 2022. The table separates the basic cost of providing services from the billing- and insurance-related administrative costs. As it shows,

NYHA can provide universal coverage with no cost-sharing at a cost that is slightly less than the "status quo" case.

Table 3 RAND "base" case Expenditures ($2022 Billions)

	Status Quo	NYHA	Change (%)
Health care services	255.5	267.1	+11.6 (5%)
Medical care	163.3	173.7	+10.4 (6%)
Prescription drugs & devices	48.1	49.3	+1.2 (3%)
Nondurable medical products	6.0	6.0	0 (0%)
Long-term care	38.0	38.0	0 (0%)
Administration	55.7	41.8	-13.9 (-25%)
Health plan administration	28.5	16.6	-11.9 (-42%)
Provider administration	26.4	24.4	-2.0 (-8%)
State financial administration	0.6	0.6	-0.1 (-8%)
Employer health benefit administration	0.2	0.2	-0.1 (-10%)
Total health care expenditures	311.2	308.9	-2.3 (-1%)

7. Additional Savings

Three items stand out as questionable in Table 3:

1. RAND's base **cost of administering NY Health** is too high. RAND assumes it would have an administrative cost that is 6% of the cost of health service delivery. It bases this on the administrative cost of Medicare and Medicaid, but it includes the administrative costs of the insurance companies that run Medicare Advantage plans and Medicaid managed care organizations. However, NY Health would be run without insurance companies. Its administrative costs would be comparable to those of traditional Medicare and fee-for-service (non-managed care) Medicaid. Experience with those programs and the Canadian single payer health care system shows that the administrative cost of NY Health would be approximately 2%.[3] RAND suggests an alternative assumption of 3% as a lower value. Using that percentage, health plan administration is reduced by an additional **$8.3 billion** beyond its base case, for a total saving of **$20.2 billion**.

2. RAND envisions saving just 8% ($2.0 billion) of **health care provider administrative costs** (that is, only 1% of total health care costs). No alternative assumption is offered, despite many studies[4] showing that these savings would be significantly higher. These

[3] Woolhandler S, Campbell T, Himmelstein DU. Costs of health care administration in the United States and Canada. N Engl J Med. 2003; 349:768-75.

[4] J. Kahn et al., "The Cost Of Health Insurance Administration In California: Estimates For Insurers, Physicians, And Hospitals," Health Affairs 24, no. 6 (November 2005): 1629–39, doi:10.1377/hlthaff.24.6.1629".
Steffie Woolhandler, Terry Campbell, and David Himmelstein, "Cost of Health Care Administration in the United States and Canada," New England Journal of Medicine, no. 349 (2003): 768–75.

studies suggest that billing- and insurance-related costs amount to around 13% of the total cost of providing health care services in the US. (On p. 28 of its study, RAND appears to assume, incorrectly, that removing these costs should represent a "13% reduction in provider administrative costs", rather than such a reduction in *total* costs, as the data suggests.) If we conservatively assume a saving of 10% of the total cost of providing service, through the simplification that accompanies introduction of a single payer, we find an additional saving (beyond RAND's base case) of **$14.3 billion**, for a total saving of **$16.3 billion**. (See Appendix B for a further, more extensive discussion of this issue.)

3. RAND assumes a **reduction in drug prices** of just 10% below Medicare Part D prices, rather than 33% below, which it estimates Medicaid already achieves nationally as in New York State (see RAND's Table 2.3 and Table 4.1). NY Health, negotiating for 20 million customers, should be able to negotiate even greater reductions than Medicaid can. If we follow RAND's alternative assumption of a 33% reduction for an achievable lower price, there will be an additional **$13.1 billion** in savings, for a total saving of **$18.6 billion** below what these drugs and devices would cost.

Thus, using well-documented values for administrative savings and drug price reductions, both suggested by RAND, and correcting for the error RAND made in estimating provider administrative savings, there will actually be an additional **$35.8 billion** beyond the minimal savings that RAND found, for an **overall saving of $38.1 billion**, or **12.3%,** below the status quo.

With these revised assumptions, based on solid research data, the change in spending under NYHA now looks like this. We will refer to this modified base case as RANDmod:

Aliya Jiwani et al., "Billing and Insurance-Related Administrative Costs in United States' Health Care: Synthesis of Micro-Costing Evidence," BMC Health Services Research 14, no. 556 (2015) http://www.biomedcentral.com/content/pdf/s12913-014-0556-7.pdf

David U. Himmelstein et al., "A Comparison Of Hospital Administrative Costs In Eight Nations: US Costs Exceed All Others By Far," Health Affairs 33, no. 9 (September 1, 2014): 1586–94, doi:10.1377/hlthaff.2013.1327.

Morra, Dante, et al. "US Physician Practices Versus Canadians: Spending Nearly Four Times As Much Money Interacting With Payers." *Health Affairs* 30, no. 8 (2011): 1443 –1450. doi:10.1377/hlthaff.2010.0893.

Table 4 RANDmod Expenditures ($2022 Billions)

	Status Quo	NYHA	Change (%)
Health care services	255.5	253.9	-1.6 (-1%)
Medical care	163.3	173.7	+10.4 (6%)
Prescription drugs & devices	48.1	36.2	-6.5 (14%)
Nondurable medical products	6.0	6.0	0 (0%)
Long-term care	38.0	38.0	0 (0%)
Administration	55.7	19.1	-36.6 (-66%)
Health plan administration	28.5	8.3	-20.2 (-71%)
Provider administration	26.4	10.1	-16.3 (-62%)
State financial administration	0.6	0.6	-0.1 (-8%)
Employer health benefit administration	0.2	0.2	-0.1 (-10%)
Total health care expenditures	311.2	273.1	-38.1 (-12%)

Note that the numbers for prescription drugs appear somewhat different from the savings figures cited in paragraph #3 above. That is because this table includes the increase in drug utilization found in RAND's microsimulation of patient care-seeking and physician and hospital care-providing behavior.

According to RAND's original "base case" estimates, replacing private insurance premiums and out-of-pocket expenses with new taxes will require raising $139.1 billion through these taxes. These additional taxes replace **$141 billion** in private insurance premiums and out-of-pocket spending. The greater savings in RANDmod will reduce those taxes to **$103.3 billion**, for a saving of **$35.8 billion** below RAND's projection of spending under NYHA..

8. Improvements in the NY Health Plan

These additional savings allow us to consider using those savings to meet some other specific needs, namely, services, raising physician fees, paying the Medicare Part B premium, covering the county share of Medicaid expenses, and including universal long-term care.

1. **Physician fees: M**any physicians in New York State find the fees that Medicare and Medicaid pay inadequate to maintain their practices successfully. RAND presents data that can be used to estimate what it would cost to raise their rates to commercial levels.

   RAND provides a useful table (Table 2.3, page 11) comparing the average current reimbursement rates paid by private insurance, Medicare, and Medicaid to hospitals, physicians, and for medications in New York State:

Table 5 Relative Provider Payment Rates and Prescription Drug Prices in NYS

Health Care Service Category	Private Insurance	Medicare	Medicaid	All-Payer Weighted Average
Hospitals	1.20	0.93	0.89	1.00
Physicians	1.20	1.11	0.62	1.00
Prescription drugs	1.27	1.01	0.63	1.00

RAND uses the all-payer weighted average in its computations. The table shows that the all-payer reimbursement rate that RAND uses for physicians is below what Medicare currently pays, a rate that, as we noted, many physicians already find inadequate. Drawing on this table and on the RAND result that physician revenues in 2022 under its base case would be $48.7 billion (Table 5.3), or $43.8 billion with the administrative savings identified in Section 7, raising them to a level where all physicians would be reimbursed at private insurance rates would cost **$8.8 billion**.

2. **Medicare Part B premiums:** Currently, Medicare recipients who wish to receive coverage for physician services must pay a monthly premium amounting to more than $100 per month. Under NYHA, the state would take over the payment of Part B premiums, so federal Medicare funding would continue to come into NY. Medicare recipients would receive the same benefits as all New Yorkers, without incurring expenses other than the NY Health tax on taxable income they might have. (NY Health benefits and terms are more generous than those of Medicare, just as they are more generous than commercial coverage.) According to RAND, that will cost an additional **$8.5 billion** in 2022**.**

3. **County Medicaid payments:** Currently, the counties of New York State, including New York City, pay a total of **$8.3 billion** ("local share") of New York's Medicaid costs (the amount is statutorily capped). Since NYHA provides NY Health will pick up the local share (using revenue from the new payroll and non-payroll taxes), this would add that amount to the new tax. (RAND has not included that in its computations; its revenue projection, Table 5.4, assumes that state and local taxes remain essentially unchanged.)

4. **Long-term care:** RAND estimates that adding long-term care services to the services covered by NYHA, using the same universal, no-cost-sharing principles as for medical care, would cost about **$18 billion** in 2022. It assumes 50% of informal home care (i.e., unpaid care provided mainly by family members) would be replaced by paid care, with 90% of this increase going to home care and 10% to nursing homes. This leads to a 200% increase in paid home care and 10% increase in nursing home care. This is consistent with an estimate of $20 billion which a Physicians for a National Health Program NY Metro Working Group made several years ago.[5] New Yorkers currently spend about $11 billion annually on long-term care insurance and out-of-pocket expenses, and NY Health would take over the portion of those expenditures paying for actual long-term care. Thus, while total expenditures would increase b**y $18 billion**, NY Health taxes would increase by about **$29 billion** to cover all long-term care costs.

[5] PNHP-NY Metro Working Group, A Proposal for Incorporating Long-term Care into the New York Health Act, 2016, www.infoshare.org/main/Incorporating_Long-term_Care_into_the_New_York_Health_Act.pdf

Note that neither the Medicare Part B premium payment nor the county Medicaid payment, nor a portion of the long-term care expenses, are *new* expenditures. Each is simply a shift of spending from one pocket (Medicare recipients, county governments, families) to another (NYHA). Total spending by New Yorkers for health care would remain substantially below RAND's status quo projections: Without adding universal long-term care, the total would be **$281.9 billion**, or **$29.3 billion** (**9.4%)** below status quo projections; with long-term care included, the total would be **$299.9 billion**, still **$11.3 billion (3.6%)** below projected spending in the status quo.

Accounting for all four of these expenses – covering long-term care, raising physician fees, picking up Medicare Part B premiums, eliminating the local share of Medicaid -- would add **$54.6 billion** to the $103.3 billion to be raised through the new NYHA tax, for a total of **$157.9 billion**. These taxes replace a total of **$169.2 billion** in current spending on private insurance premiums, out-of-pocket spending, Medicare Part B premiums, and local Medicaid costs.

Advocates for NYHA have been relying on the study conducted by Prof. Gerald Friedman since it was released in April, 2015. Here is a comparison between the RAND base-case results, our RANDmod, and Friedman's work:

Table 6 Comparison of RAND, RANDmod & Friedman

Additional Costs	RAND	RANDmod	Friedman
	$2022 B	$2022 B	$2019 B
Covering the uninsured & Elimination of cost-sharing	17.1	17.1	15.2
Enhanced physician fees	--	8.8	10.8
Total Costs	17.1	25.9	26.0
Savings			
Reduced insurance admin costs	11.9	20.2	28.6
Reduced provider admin costs	2.0	16.3	20.7
Bulk purchase of drugs & devices	5.5	18.6	16.3
Reduced fraud	0.0	0.0	5.4
Total Savings	19.4	55.1	71.0
Net Dollar Savings	2.3	29.2	45.0
Percent Savings	0.7%	9.4%	15.6%

RAND's "base" case uses conservative assumptions which were discussed earlier. Within the wide margins of uncertainty in such future-oriented studies, the modified RAND base case and Friedman's results are clearly compatible with each other.

9. Tax Proposals

The new NYHA payroll and non-payroll taxes replace the private insurance premiums, deductibles, copays, and out-of-network charges of the status quo. Using our revised assumptions for spending under NYHA, we find the following revenue needs that must be provided by the NYHA taxes:

Table 7 Required tax revenue ($2022 billions)

RAND base case	139.1
RANDmod	103.3
RANDmod w/improvements w/o long-term care	128.9
RANDmod w/improvements incl. long-term care	157.9

These funds replace spending on private insurance premiums and out-of-pocket costs and also pay for the "improvements" described above.

RAND proposed the following tax structure:

Table 8

Wage & Nonwage Income	Wage Marginal Rate	Nonwage Marginal Rate
≤ $27,500	6.1%	6.2%
$27,501-$141,200	12.2%	12.4%
>$141,200	18.3%	18.6%

Note that the "marginal" rate only applies to income within that particular bracket. For a given individual, the actual effective rate would reflect the fact that income in lower brackets is taxed at a lower rate. For example, under RAND's structure, someone earning $28,500 would pay 6.1% of $27,500 plus 12.2% of $1,000, for an effective rate of 6.31%.

However, this structure does not meet some general criteria for the kind of progressive tax structure advocates for NY Health would like to see. It taxes low-income residents who qualify for Medicaid today and receive care at no cost, and it taxes a dollar earned at the $27,501 level (poverty level for a family of four) at the same rate as a dollar at the $141,200 level.

It is important to note that this bracket structure is just a hypothetical example chosen by RAND. The study states, "Many different tax schedules with varying degrees of progressivity and regressivity could be established to meet the financing needs of NYH; we present one set of possible rates" (Page 24). Other plans would be just as valid and more consistent with the equity goals of NYHA.

This table shows the tax structure proposed in 2015 by Prof. Friedman:

Table 9

Wage & Nonwage Income	Marginal Rate
<$25,000	0%
$25000 - $49,999	9%
$50,000 - $74,999	11%
$75,000 - $99,999	12%
$100,000 - $199,999	14%
$200,000 or more	16%

Advocates for NYHA much prefer this structure, which does not tax low-income residents and raises the tax rate progressively as income rises.

RAND projects that wages will rise at a rate of 3.1% per year over the coming decade, while overall personal income will rise 3.5% (implying that non-payroll income will rise faster than payroll income, which it certainly has been doing in recent years). Using those rates and the projected population growth rate of 0.4% per year, the Friedman tax structure and tax rates, which are projected to yield $91 billion in 2019, would yield about $102 billion in 2022. Thus the tax structure in Table 9 would pay for the basic NY Health plan under the assumptions incorporated into RANDmod.

This covers the cost of NY Health under RAND's alternative assumptions (with the modifications discussed above), although not the "improvements" described in Section 8. To fund these, we would suggest using the following revised tax table:

Table 10

	Marginal Rate w/o long-term care	Marginal Rate w/long-term care
<$25,000	0%	0%
$25000 - $49,999	11.3%	13.8%
$50,000 - $74,999	13.8%	16.9%
$75,000 - $99,999	15.0%	18.4%
$100,000 - $199,999	17.6%	21.6%
$200,000 or more	20.1%	24.6%

The following table shows the effective tax rate at each income level, using these marginal tax rate brackets for each situation of "improvements":

Table 11

Income	Effective Tax Rate w/no "improvements":	Effective Tax Rate with "improvements" w/o long-term care	Effective Tax Rate with "improvements" incl. long-term care
$25,000	0%	0%	0%
$50,000	4.5%	5.6%	6.9%
$75,000	6.7%	8.4%	10.2%
$100,000	8.0%	10.0%	12.2%
$200,000	11.0%	13.8%	16.9%

10. Federal waivers

RAND suggests that federal waivers would be required to continue receiving federal health care funding. It questions whether these waivers would be available to facilitate incorporating Medicaid, Medicare, and Affordable Care Act funds into NY Health.

NY Health can be implemented more easily if New York receives federal waivers relating to Medicare and other federal programs. However, NY Health can be implemented without federal waivers.

First, NYHA does not call for any new or increased federal spending. Thus, it would not violate federal "budget neutrality," which might have triggered the need for a waiver or made a waiver unlikely to be obtained.

New York Medicaid has always covered populations, payment levels, and services beyond those that qualify for federal matching funds. Outside the perimeter of federal Medicaid, we do what we want with our own money. We only have to document to CMS what expenditures qualify for federal matching; the rest remains State-only. NY Health would not change this, and we would continue to draw down the same federal matching money.

Child Health Plus can be folded into NY Health the same way Medicaid can. We currently run CHP through managed care plans (as we choose to do with most of Medicaid), but it can be run without managed care plans, as Connecticut does, without a waiver.

For Medicare, NY Health could operate as "wraparound" coverage, filling in the gaps in Medicare, as the EPIC drug program does and New York Medicaid does in some circumstances. New York could also set up a Medicare Advantage plan (but without any restricted provider network or coinsurance and with NY Health funds picking up the cost-sharing) which New York Medicare recipients would be invited to join. The plan would receive ordinary Medicare Advantage payments from CMS. Under existing federal law, New York can choose to raise the eligibility level for "qualified Medicare beneficiaries" (QMB) as high as we want, enabling the State to pick up Part B premiums and coinsurance for all recipients.

CMS could give New York a Medicare waiver, under which it would simply send the state a check every month for what it would have spent on Medicare benefits for New York residents; that would save the federal government some administrative costs and make NY Health easier and less expensive to run. But if CMS is not willing to do that, then either the wraparound or Medicare Advantage model could work as an alternative, without a waiver. Under any scenario, the NYHA would guarantee that every Medicare recipient receives more generous benefits than they receive today.

11. Conclusions

RAND has provided valuable new data and support for the concept underlying the New York Health Act. It has demonstrated that it is a feasible plan which New York can afford and which will benefit the vast majority of its residents. The study includes alternative assumptions that are actually more realistic than RAND's original one and that make the plan more affordable and beneficial for New Yorkers and for the New York economy. While this paper has focused on the economics of NYHA, we should remember the broader benefits of NYHA which will included improved health outcomes for New Yorkers, reduced health disparities, reduced absenteeism, lower health care costs for employers, and an improved climate for entrepreneurship.

APPENDIX A

Projections of Individual (non-group) Private Insurance Coverage

Currently, these are the principal sources of health insurance coverage in New York State, as provided for 2022 in Table 5.1 in the RAND report:

Table A1

Source of coverage	Population (millions)
Employment-base private insurance	9.6
Individual (non-group) insurance	0.3
Medicaid, Essential Plan & CHIP	4.9
Medicare	2.9
Dual Medicaid and Medicare	1.0
Uninsured	1.4
Total	20.1

Health care expenditures projected by RAND in Table 5.4 for 2022 are as follows:

Table A2

Source of Health Care Funding	Payments $2022 billion
Employer-based private insurance	84.8
Individual (non-group) private insurance	1.9
Federal government (Medicare, Medicaid, etc.)	120.5
State government (Medicaid, etc.)	34.1
Medicare (Part B)	8.5
Other miscellaneous payments	27.8
Out-of-pocket payments	33.5
Total	311.1

There are several problems with these tables, which are drawn directly from the RAND report:

1. The number of people on individual insurance, and the payments from individual insurance, are much too small. The recent report on health insurance trends from the NYS Health Foundation indicates that 9.9%, or 2 million, New Yorkers have what they refer to as "direct payment" coverage (the Census Bureau estimates that 2.53 million are on such individual coverage, while 10.88 million are on employer-based coverage)[6]. Thus, there

[6] "Success in the Empire State: Health Insurance Coverage Trends", NYS Health Foundation, November 2017. https://nyshealthfoundation.org/resource/success-in-the-empire-state-health-insurance-coverage-trends; Current Population Reports, P60-260, Health Insurance Coverage in the United States: 2016, U.S. Government Printing Office, Washington, DC, 2017. Supplemental data showing detailed data by insurance type: Table HIC-4_ACS. Health Insurance Coverage Status and Type of Coverage by State All People: 2008 to 2016. https://www.census.gov/library/publications/2017/demo/p60‐260.html

are at least 2 million more New Yorkers on private insurance than RAND figures indicate, and health care payments from private insurance (Table 2) have to be increased accordingly. (In fact, RAND's Table 2.1 shows a more accurate number for non-group insurance, but that table is not used in its later material.) The numbers for Medicare and Medicaid also need revision. Table A1 (rev) shows revised population numbers:

Table A1(rev)

Source of coverage	Population (millions)
Employment-base private insurance	9.4
Individual (non-group) insurance	1.8
Medicaid, Essential Plan & CHIP	4.3
Medicare	2.4
Dual Medicaid and Medicare	1.0
Uninsured	1.2
Total	20.1

2. Table A2 shows payments to the health care system from the various funding sources. Therefore, the Part B premiums that Medicare recipients pay to the federal government should not appear here. Those funds go into the federal government's coffers to help pay for the contribution that the federal government makes to pay for health care services in New York (here, $120.5 billion). Including it explicitly in the table would amount to double-counting. Thus, a revised Table A2 must be created.

We don't have estimates of what amount individual insurance pays towards health care expenses, but it is probably between $10-20 billion, based on what employer-based insurance pays per person. For simplicity, we have selected a value which keeps total spending at the same value as RAND has used in its analysis.

Table A2(rev)

Source of Health Care Funding	Payments ($2022 billion)
Employer-based private insurance	84.8
Individual (non-group private insurance	10.4
Federal government (Medicare, Medicaid, etc.)	120.5
State government (Medicaid, etc.)	34.1
Other miscellaneous payments	27.8
Out-of-pocket payments	33.5
Total	311.1

The main implications of these changes are (1) insurance plan administrative costs – and, consequently, administrative savings when moving to NYHA – will be greater because more health care financing goes through private insurance companies, and (2) Medicare Part B premiums are not part of the direct payment for health care and should not be treated as such in the computations.

APPENDIX B

Provider Administration Savings

Prepared jointly with Henry Moss, PhD, member of the Board of Directors, New York Metro Chapter, Physicians for a National Health Program

As noted on pp. 7-8, there is reason to believe that the RAND report underestimates the administrative savings that would accrue to physician practices, hospitals, and other providers by enacting the single-payer New York Health Act (NYHA). This is particularly important because insufficient savings is one of the main reasons given for what they see as the necessity of reducing the income of many physicians in order to have a realistic financing plan. By using an all-payer weighted average of Medicaid, Medicare, and commercial reimbursement in their model, RAND insists that providers with a larger share of non-Medicaid patients will have to see reduced incomes, even after program savings. Such a reduction would have political and other consequences.

RAND offers alternative scenarios that show the potential for added savings in the cost of program administration and the cost of drugs and devices. They base these on their reading of the research literature. However, they do not offer an alternative for provider administrative savings. In Table 3, RAND shows total status quo provider administration costs in New York in 2022, the first year of the program, at $26.4 billion. Under the NYHA, provider administration would drop to $24.4 that year, about $2 billion in savings, only 1% of total health care spending.

Such a small number is unrealistic given research findings that point to much higher savings. (Sources are shown at the end of this Appendix.) These findings are based on the expectation that many of the kinds of expenses needed to manage a multi-payer system anchored by commercial insurance would be eliminated or significantly reduced in a single-payer system.

What kinds of provider administrative expenses might be saved in a single-payer system?

Some administrative activities are usually classified as clinical in nature, such as charting and coding. These will exist in all systems. Some non-clinical administrative expenses would also exist in all systems, including reception, scheduling, purchasing, receiving, facilities management, security, accounting, office management, senior management, legal services, general clerical services and others. Many billing and insurance related (BIR) expenses, on the other hand, are associated with the U.S. multi-payer system and can be eliminated or reduced in a single-payer system. These include:

- *Pre-authorization*: providers must often contact a commercial insurance company to receive authorization for a procedure, drug, or device. While pre-authorization is sometimes needed for drugs or devices in Medicare (Part D) and Medicaid, traditional Medicare has very few pre-authorization requirements for general medical care.
- *Claims processing and billing*: Providers must interact with hundreds of insurance companies with thousands of different plans in order to receive payment on a claim, and eligibility rules, pre-authorization requirements, submission procedures, and drug

formularies usually differ from plan to plan. Hospitals, clinics, and physician practices employ large staffs to handle all aspects of this process. In addition, physicians spend time interacting with payers, with much of this time spent negotiating authorization for non-formulary drugs. Adding to complexity is the fact that patients change insurers often as they change jobs or as employers change plans, and insurance plans frequently change their terms and conditions.

- *Claims denial*: All insurers, including Medicare and Medicaid, may reject a claim for various reasons. Since 75-80% of denials are ultimately approved upon re-submission, providers routinely file appeals (Blanchfield 2010).
- *Collections*: Providers engage in many activities aimed at collecting balances due to deductibles or coverage limits. This may require multiple bills, statements, collections letters, or calls.
- *Credentialing*: U.S. physicians submit an average of 18 credentialing applications annually to insurance plans, hospitals, and other facilities. Each entity has its own form and an average of 70 minutes of staff time and 11 minutes of physician time are required for each, according to surveys (Cutler 2011).
- *Support*: This includes management activities, staff training, IT services, office space, and other services needed to support staff involved in the above BIR activities.

Substantial numbers of non-clinical staff carry out these activities. Studies have shown that private physician practices, for example, employ between .67 and .78 FTE non-clinical staff members per FTE physician (Sakowski 2009 and Hsiao 2011). If staff can be reduced, payroll and benefits expense can be reduced along with expenses associated with staff support, including IT and office space.

What part of BIR administrative expense can be considered "excess"?

Some BIR expense would continue in a single-payer system, including interactions with the government payer and authorizations for non-formulary drugs. Some BIR-related management and support functions would also still be needed and there will be claims involving patients who are non-residents and covered by private insurance in other states.

Nonetheless, these considerations constitute only a small part of BIR, and substantial savings can still be realized through:

- Elimination of most medical pre-authorization requirements.
- A significant reduction in complexity through uniform pricing and one-click processing. A centralized computer claims processing system would be able to receive a clinical report with a diagnostic code, generate a claim/bill, and deposit a reimbursement in a provider account in a seamless fashion.
- Elimination of collecting out-of-pocket balances.
- Significantly reduced claims denials due to uniform claims processing standards.
- Reduced need for credentialing through use of a centralized credential system.
- Reduced IT infrastructure and office space due to decreased administrative staff.
- The ability of the program to develop global budgets for institutions based on uniform pricing.

Before determining excess BIR expense, however, we need to estimate total BIR expense. Micro-costing analyses have been used to measure BIR expenses. These involve surveys of providers, interviews, and workflow analysis, and usually measure savings as a percent of provider revenue. This allows for averaging across providers of different sizes and characteristics. Studies have used a variety of methods, but results have been fairly consistent

Government statistics show that about 20-30% of provider revenue is used to cover all administrative expenses (Kahn 2005 and Sakowski 2009). With respect to physician practices, studies show that BIR expense represents about half of this total with the following percentages of revenue devoted specifically to BIR expenses:

- Kahn (2005): 10-14%
- Sakowski (2009): 10-12%
- Casalino (2009): 13%
- Morra (2011): 13%
- Hsiao (2010): 15%

With respect to hospitals, we have the following percentages:

- Kahn (2005): 6.6-10.8%
- Kahn (2010): 8.5% (the mid-point of Kahn 2005)

With respect to "other providers", including labs, pharmacies, nursing homes, home health agencies, and other providers, where data is sparse, researchers have averaged physician and hospital expenses, or used other indirect estimates. Jiwani (2014) chose 10% and others have made similar estimates.

The weighted average of physician, hospital, and "other" BIR administrative expenses would then be about 10% of provider revenue, a conservative estimate. Since RAND puts total provider revenue in New York at $227.8 billion in their Table 3, 10% of revenue would be about $22.8 billion in BIR expense.

What percentage of this $22.8 billion can be considered "excess" and would be saved in a single payer program? Excess BIR has been measured in two ways. The first involves comparing U.S. administrative expense with the administrative expense of countries with single-payer systems, with Canada serving as the usual country for comparison. Here we find estimates ranging from 59% from Pozen and Cutler (2010) to 73% from Morra (2011) and Jiwani (2014).

The second method involves directly calculating the percent of revenue through micro-costing analysis. Kahn (2010), in a study sponsored by the Institute of Medicine, estimated a savings of 50%, which Kahn sees as consistent with the findings of Casalino (2009). Hsiao (2011) accepts the 50% estimate (as a conservative assumption) in his analysis of the Vermont single-payer proposal and reports that this is confirmed by a survey he conducted involving Vermont providers. Pollin (2017) also uses the Kahn estimate in his economic analysis of the single-payer Healthy California bill. This results in a range of estimates, from 50% to 73%, in excess provider administrative expense which would be eliminated in a single-payer system.

Using the $22.8 billion provider BIR expense calculated above, provider savings would range between $11.4 and $16.6 billion, 5.5 to 8 times greater than RAND's $2 billion.

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