In the late 1980's, Taiwan, with its 20 million people, was faced with a similar set of problems to those that are confronting the USA and Maine today. Many Taiwanese had no health insurance, rapid health cost inflation put the existing health insurance plans and patients under heavy financial pressure, the government-run health insurance for employees of large companies was bankrupt, the quality of health care was inconsistent, and health care delivery was plagued with over-treatment, waste, abuse, and fraud. Rising public discontent caused the Premier to appoint a Task Force in 1988 charged with designing health system reforms to achieve the following goals: universal health insurance, improved access to and quality of health care, and limiting health care cost inflation to an affordable level.

The Task Force recommended a compulsory national health insurance plan (NHI) that would cover every Taiwanese, financed by a payroll tax of 4.25%; employers, employees, and government would share in paying the premium. The government would subsidize the premium for the poor, farmers, veterans, and self-employed workers. The NHI would be a single payer plan run by the government. The organization of the delivery system—a competitive market system with a mix of public, non-private, and for-profit hospitals and clinics—would remain unchanged, and primary care would continue to be delivered by private solo practitioners. However, the single payer system would alter the payment method and set uniform payment rates and regulations. The government accepted the recommendations of the Task Force and an NHI law was passed in 1994. However, the law excluded the recommended reform of the payment method. The program was implemented in 1995. In only one year, 92% of the Taiwanese people enrolled in the NHI; today, just about every resident of Taiwan is enrolled. The Taiwanese government established one organization to manage and administer the single payer NHI program. Under this single payer system, every Taiwanese was enrolled in the NHI plan that provided a uniform and comprehensive benefit package. It went beyond the coverage of preventative, primary, and tertiary services, also covering prescription drugs, dental care, Chinese medicine, and home visits by nurses. The NHI agency was the single channel of payment to all providers and set uniform payment rates and rules for providers. Hence, the providers only had to follow one set of rules to receive payment for the services they rendered, use a uniform record-keeping system for patients, and follow a single process in filing claims. Every enrollee was issued a “smart card” and a nationwide electronic record and claim filing system was established. Most of the processing and administrative work was done electronically and through the Internet. As a result of this system, current administrative costs for the NHI agency are less than 2% of the total NHI premium.
The smart card and electronic record system give providers comprehensive information about the medical history, past diagnoses, and treatment of a particular patient. Consequently, providers can reduce duplication of services and provide more continuity of care. The uniform record-keeping system of the NHI facilitates the creation of provider and patient profiles which can identify over-treatment, waste, and abuse in health care delivery—information the NHI agency can then use to reduce inappropriate practices.

Evaluation of Taiwan's NHI shows that it has improved access for poor and low-income people and that it narrows the disparity in the use of health services between the rich and the poor. Children and senior citizens received more preventative and primary care. Patients suffering from strokes and heart attacks accessed health centers with greater competency to treat their conditions, resulting in better health outcomes. The single payer aspect of the NHI produced a one-time reduction in health expenditures by curbing the waste, abuses, and fraud in health care delivery and by reducing the administrative costs of the health care system. Single payer also reduced the annual rate of health expenditure inflation in Taiwan by about 2% per year. This was accomplished by establishing an overall budget for health spending and was executed down to the level of hospitals and practitioners through global budgets and greater use of formularies. As a result, NHI was able to maintain the same payroll tax rate for several years while maintain financial soundness. Several years after its implementation, Taiwan's NHI had to raise its payroll tax rate from 4.25% to 4.55% in 2003 because an aging population and expensive new technologies caused health costs to rise faster than increases in the payroll tax base. Taiwan's experience has been the same as other advanced economies that have funded NHI programs by a payroll tax. Taiwan is now trying to shift to an income-based tax to finance the NHI.

However, Taiwan faces continuous strong inflationary pressure because its fee-for-service payment method was not reformed under NHI. Fee-for-service payment incentivizes provider to induce demand, resulting in an average of fourteen visits per person per year in Taiwan. It also encourages solo practitioners and hospitals to compete with each other rather integrating their services. A fragmented health care delivery system is inefficient and does not provide the best health care for chronically ill patients, nor does it offer continuity of care. Taiwan introduced global budgets to control health expenditure inflation, but this has caused providers to limit their services and distort their service provisions. The quality of some health services may have suffered. These problems are the challenges facing Taiwan today.

Taiwan holds valuable lessons for the USA and Maine. By the early 1990's, Taiwan had a health system similar to the one in the USA today. Taiwan acknowledged that their system was broken, resulting in lack of universal insurance coverage, inequity in financing, disparity in access, uneven quality of health care, over-treatment, waste and abuse, and rapid inflation of health expenditure—all of which made health care unaffordable. The reforms adopted and implemented in Taiwan show how a single payer NHI can provide universal health insurance coverage and improve access while reducing administrative burdens on physicians, reducing administrative costs on the health care system, and controlling the health expenditure inflation rate. However, Taiwan still has to reform its fee-for-service payment and its fragmented delivery system. The USA and Maine can learn from what Taiwan has done well and can leap-frog past where Taiwan has lagged.
Taiwan’s Health Reforms: Lessons for USA and Maine

William C. Hsiao, Ph.D. FSA
K.T. Li Professor of Economics
Harvard School of Public Health

Maine AllCare Forum
Bates College, Maine
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Background Information on Taiwan

- Land size: about 1/3 of Maine
- Population: 23 million people (about 18 times of Maine population).
- Income (GDP per capita, 2009) -- $32,000 (PPP basis)
  Income (GDP per capita in 1995 when NHI was implemented) -- $13,000 (PPP basis)
Major Problems Confronting Taiwan in late 1980’s

- Majority of Taiwanese had no health insurance, many lack adequate access to health care.
- Taiwan had multiple health insurance plans, but they only covered civil servants, farmers, and workers (but not their families).
- High health cost inflation
- Uneven quality of health services.
- Inefficiency, waste, and abuse in health care.
Taiwan’s Goals for Reform

- Provide health insurance coverage for all Taiwan residents.
- Improve equitable access to health care, particularly for poor and low-income people and residents in remote areas.
- Improve quality and efficiency of health care.
- Control health expenditure inflation so health spending is affordable and cost of health insurance is sustainable.
Taiwan’s Reforms

- Universal coverage, pool risks nationwide, equity in finance:
  - Mandate all employers and individuals to join NHI.
  - Finance by premium contribution based on a payroll tax
  - Government subsidizes the poor, the veterans, farmers and self employed
- Equal access: uniform comprehensive benefit package, include dental, Chinese medicine, and home care.
- Built-up supply in under-served areas.
- Providers: continue to pay on fee-for-services basis, but introduced uniform fee schedule and global budget.
- Single payer—government (Bureau of NHI)
Single Payer Allowed Taiwan to Organize:

- Uniform administrative procedures for patients’ access (Smart Care card) and claim payment → reduce paper work and administrative expenses
- Uniform electronic patient records → improve the continuity and effectiveness of health care and reduce repetition of tests
- Uniform claim records → Can produce complete profile of providers’ medical practice and billing; reduce fraud, over-charges, over-treatments and billing.
Taiwan’s NHI achievements

- Expanded insurance coverage from less than 60% to 92% of the population in a year. Now it’s close to 100%.
- Improved the access to health care for the poor and people living in remote areas.
- Narrowed the disparity between the rich and poor in utilization rates.
- Shifted the emphasis to prevention and primary care.
- Improved the health outcomes for poor and low income people when they have strokes and heart attacks.
EXHIBIT 2
Residuals For Total Health Spending Per Person In Taiwan, In Real Terms, 1992–2000

Average residual

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<td>0.02</td>
<td>0.01</td>
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**SOURCE:** Residual was computed based on Taiwan's national health expenditures estimated by the authors (see text for details).

**NOTES:** When Taiwan's National Health Insurance was implemented in 1995, the residual jumped from its historical average of 0.02, then dropped.
Growth Rates of Medical Expenditures in Selected Countries from 1997 to 2006

Source: OECD Health Data
Public Satisfaction Ratings for NHI

Source: National Health Insurance In Taiwan 2010
Remaining Challenges Confronting Taiwan

- Establish an Integrated Delivery System care to improve quality and efficiency of health care.
- Assure fairly uniform quality of health services and remove current inappropriate care (many visits and over-use of drugs).
- Address the deficit of the NHI Fund due to an omission in the NHI law.
Major Problems confronting USA

- Lack of universal health insurance coverage—now mostly addressed by Obama’s Affordable Care.
- Uneven quality of health care
- Inefficiencies—emphasis specialty treatment rather prevention and primary care, duplication of tests, over-treatment, waste, abuse, and fraud.
- Significant share of physician time and health expenditure spent on myriad of administrative requirements imposed by multiple insurance plans.
Lessons for USA and Maine (I)

• Taiwanese health SYSTEM was broken and archaic. Is the current US system in a similar situation?
• We know how to fix a broken system and modernize it for the 21th century. Taiwan is a case among the advanced economies.
• Taiwan still has an archaic health care delivery system that needs fixing.
Lessons for USA and Maine (II)

- Universal health insurance coverage with comprehensive services is possible, but must have law that mandates everyone to be insured.
- Single payer can control health expenditure inflation:
  - Taiwan now spends 6.1% of its GDP on health.
  - NHI if financed by premium assessed as 4.55% of payroll.
- Public satisfaction can be high and sustained in a single payer system.
- Fee-for-service payment is inflationary and wasteful, but providers strongly resist reform. Taiwan had to resort to a global budget method (a “second best” solution).
- Payment method must be reformed if Taiwan wants to move to an modern integrated delivery system.
- Some co-payment are necessary to moderate demand for “unnecessary” services and drugs.
I am Dr. Philip Caper. I am accompanied by Alice Knapp. I have spent my career trying to improve the health care system that serves the American people. We are here today representing Maine AllCare. Maine AllCare is dedicated to promoting universal, high quality and affordable health care for the people of Maine.

The recently enacted federal Affordable Care Act is a first step toward reforming the health care system in the United States. It is a step toward health care as a right of all Americans, and it makes tangible improvements in the existing system for many of us. However, it builds on a broken, unnecessarily expensive system and falls short of its ultimate goals. It will not achieve universal access to health care, nor is it likely to control spiraling medical costs, which are an unsustainable burden on government, businesses, families, and individuals.

I am Alice Knapp. The Affordable Care Act leaves over 100,000 of Maine’s citizens without access to affordable, quality health care. It provides no tangible relief to sole proprietors, individuals and families with incomes greater than 400% of the federal poverty level. Putting this into numbers, consider that 400% of the federal poverty level for an individual is $43,320. At that income level, if you are over 39 years of age, your choice of health plans in Maine’s individual market with a premium representing less than 10% of your gross income is limited to Anthem’s $10,000 or higher annual deductible plans. My monthly Dirigo Choice premium of $643 for the $2,500 deductible plan would represent 18% of your income.

For everyone else in Maine who may receive some modest relief under the Affordable Care Act, employment status and wealth will still play a large role in determining access. Multiple health care plans will remain in effect with varying premiums and disparate benefit packages. There will be at least 4 tiers of coverage. This is fundamentally unfair, and this unfairness holds serious health and financial consequences for those left out by the new law, and who face serious illness.

Many of the problems that Ms. Knapp has described have been solved in most other advanced countries. Taiwan is one of them. We are honored to have with us today Professor William Hsiao. I first met Professor Hsiao when we served together on the faculty of Harvard University many years ago. He is considered one of the world’s foremost experts on health care economics. He is the principal architect of the universal health care system adopted by the government of Taiwan in 1995. He has recently been commissioned by the state of Vermont to recommend changes in their health care system to help address issues left unaddressed by the Affordable Care Act.