Estimating the cost of new public health legislation

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Objective To develop a new method for estimating the cost to governments of enacting public health legislation.
Methods We adopted a central government perspective in estimating costs. The parliamentary cost of legislative acts and regulations in New Zealand was calculated from the proportion of parliamentary time devoted to law-making (i.e. sitting days in the debating chamber), and the cost of associated policy advice from government agencies was calculated from the proportion of documented policy issues related to law-making. The relative costs of acts and regulations were estimated from the number of pages in the legislation.
Findings We estimated that, between 1999 and 2010, 26.7% of parliamentary resources and 16.7% of policy advice from government agencies were devoted to generating new laws in New Zealand. The mean cost of an act was 2.6 million United States dollars (US$; 95% uncertainty interval, UI: 1.5 to 4.4 million) and the mean cost of a regulation was US$ 382 000 (95% UI: 221 000 to 665 000). For comparison, the average cost of a bill enacted by the 50 state governments in the United States of America between 2008 and 2009 was US$ 980 000.
Conclusion We were able to estimate the cost of new legislation in New Zealand. Our method for estimating this cost seemed to capture the main government costs involved and appears to be generally applicable to other developed countries. Ideally such costs should be included in economic evaluations of public health interventions that involve new legislation.

Abstracts in عربي, 中文, Français, Русский and Español at the end of each article.

Introduction

There is strong scientific evidence that the law can help improve public health. A recent publication identified 65 systematic reviews of studies on the effectiveness of a total of 52 public health laws:[1] 27 of the 52 (52%) were found to be effective in achieving their health objectives, whereas there was insufficient evidence to judge the effectiveness of 23 (44%) and 2 were judged not to be effective. These laws encompassed areas such as injury prevention, housing, tobacco use, vaccination, violence and food safety. Furthermore, an examination of the "ten great public health achievements" made in the United States of America (USA) between 1900 and 1999 showed that all 10 were supported by laws at all levels of government.[2] Indeed, the United States Centers for Disease Control and Prevention "increasingly envisions public health law as an integral element in the armamentarium of each of its programs … ".[2] In addition, a recent article highlighted the key role of the law in addressing the global problem of noncommunicable diseases.[3]

As well as knowing how effective a law is as a public health intervention, policy-makers should also have some understanding of its cost-effectiveness. Cost-effectiveness analyses can guide decisions on how scarce resources can best be allocated to maximize gains, such as improvements in the present or future health of the population. In particular, given that many regulatory interventions are effective in improving public health, it would be valuable to be able to compare the cost-effectiveness of different regulatory interventions with each other and with other public health interventions. For example, a health policy-maker may want to compare the cost-effectiveness of a regulatory intervention, such as a new law to increase the tax on tobacco, with a nonregulatory intervention, such as a government-funded social marketing campaign aimed at reducing smoking or the provision of funding for smoking cessation therapies.

Comparisons of the cost-effectiveness of different interventions must take account of all relevant costs, including the cost of making new laws and regulations. These costs must then be weighed against the public health benefits and possible cost savings resulting from the legislation. From one point of view, the "cost" is largely a "political cost" or a "political benefit", depending on whether society as a whole disapproves or approves of the new law. One potential consequence is that the politicians responsible for the new legislation may be voted out of office. In economic terms, however, there is also an opportunity cost because the machinery of government (e.g. policy advisors and parliamentarians) can be applied to alternative activities. In addition, running a parliament and government agencies entails costs to society, all of which are paid for through taxation.

The World Health Organization (WHO) has developed a useful method, called the WHO-CHOICE model, for costing the implementation of new laws in the health sector.[4] The model adopts a bottom-up approach that considers various cost inputs, such as the cost of the staff and resources required to implement a new programme at a national or local level. It has been used, for example, in costing the implementation of mandatory legal interventions for reducing the level of salt in food.[5,6] However, at present there is no specific method for estimating the cost of the law-making component of a new public health law and too little information is available to determine whether law-making costs are relatively small or large.

Consequently, the aims of this study were to develop a method for calculating the cost of creating new legislation and to apply this method in New Zealand. Our objective was to provide researchers with a means of calculating the cost of a new law that could be used in future cost-effectiveness analyses to compare different regulatory interventions or to compare a regulatory and a nonregulatory approach to a public health problem.

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Methods

We were interested in the opportunity cost of making a new law, where the opportunity cost is the cost related to the value of the best alternative use of parliamentary and government resources. For example, the best alternative use of these resources may be to improve the oversight and quality of delivery of existing government services or to ensure better implementation and enforcement of existing laws. However, the complex nature of parliamentary and government activity makes such an analysis difficult. Therefore, we took the simplistic approach that the "next best use" of law-making resources would be to pass no new law, with the consequence that the funds saved would remain with taxpayers (i.e. the size of parliament and policy advice agencies could be conceptualized as shrinking accordingly).

More precisely, we adopted the counterfactual of an "abridged non-law-making parliament" that would cost the same amount to operate as parliament minus the cost of the law-making component. Similarly, this counterfactual assumed smaller government agencies that would cost the usual amount to operate minus the cost of the policy advice component relating to new law-making. We then estimated the average cost of a law and assumed that in the long-run the average cost would tend to equate to the optimal metric for this type of analysis: the long-run marginal cost of a new law.

Our conceptual framework requires a long-run perspective with which there is sufficient time for the resources (e.g. the size and budget of parliament and the government agencies) to be changed in response to the change in the required output (e.g. the legislative workload). If this approach were not adopted, it would be difficult to estimate the marginal cost of a new law in any meaningful way. Indeed, in the short run the marginal cost of a new law approaches zero since the size and budget of a parliament and the government agencies are largely predetermined for several years. However, there is historical evidence of legislatures being curtailed. Some states in the United States have restricted the functioning of the state legislature: in Oregon, sessions are limited to 35 days in even-numbered years.[7]

Our method is congruent with the adoption of a central government perspective on costs. However, the direct government costs of an intervention can reasonably be included in a health system perspective in cost-effectiveness evaluations of health interventions since the government apparatus is a necessary component of the health system.[8,9] While a case could be made for including the costs of nongovernmental organizations or of industries (e.g. the tobacco, alcohol or food industry) in, for example, lobbying government, we considered these costs to lie outside our perspective.

For this analysis, we defined a law as an act of parliament (i.e. a statute) or a statutory regulation enacted by a central government. In New Zealand and similar English-speaking jurisdictions, an act is a law made by parliament whereas a regulation is a law made by an authorized body under powers conferred by an act of parliament. Regulations generally deal with matters of detail or administration or matters that are subject to frequent change.[10] Since we adopted a central government perspective, we ignored bylaws produced by local government. We also ignored other "softer" aspects of the law that are typically used by countries in the Commonwealth of Nations: for example, Orders in Council, rules, guidelines and codes of practice. Nevertheless, these items may be covered to some extent by central government acts and regulations.

To gain a better understanding of how politicians spend their time and the extent to which government agencies provide policy advice on law-making, we undertook a literature search of PubMed and Google Scholar in May 2011 to identify studies on the cost of new laws. The search terms used included combinations of: "cost", "law", "legislation", "sitting days/legislative session", "legislature/parliament" and "policy advice". We carried out additional searches using information obtained by examining the bibliographies of the articles identified and using the names of authors who had published related work.

General assumptions

We regarded the following factors as important for estimating the cost of a law in New Zealand:

- the cost of running the New Zealand Parliament, a proportion of which relates to law-making;
- the cost of policy advice provided by government agencies, a proportion of which contributes to law-making;
- the average annual number of acts and regulations passed by parliament in an electoral cycle.

Although our major interest was in health-related laws, we decided not to restrict our analysis to these laws but instead estimated the cost of making a law in general. We did this because the boundaries between health-related laws and other laws are often unclear. For example, an alcohol-control law that benefits health may also help to reduce crime and may result in economic benefits following from reduced work absenteeism.[11]

Moreover, in this study we considered the cost of making a new law but not the cost of its subsequent enforcement. The cost of enforcement is best estimated for each intervention individually since it is highly dependent on the type of law and on the approach taken to enforcement.

Data on the number of laws (i.e. acts and regulations) enacted over a 12-year period, which corresponded to four electoral cycles in New Zealand, were obtained from official government web sites. The number of pages in each act was also extracted from the web sites. However, because there were so many regulations, the average number of pages in each regulation was estimated by random sampling.

Statistical analysis

To account for uncertainty in our results, we applied gamma or beta distributions around uncertain input parameters, in accordance with the recommendations of Briggs et al.[12] To generate 95% uncertainty intervals (UIs) for the results, we then performed a probabilistic sensitivity analysis using @Risk for Excel version 5.7 (Palisade Corporation, Ithaca, USA).

Results

Literature search

Our literature search identified only one publication on the cost of laws; it came from the United States.[13] The analysis used in that study adopted a fairly simple bottom-up approach to estimating the cost of running legislative sessions: it considered the number of days of legislative sessions and the salaries associated with them. Consequently, the full cost is likely to have been underestimated since the cost of government agencies and other costs directly associated with

the operation of a legislature were not taken into account.[13]

We also found work in the political science literature that categorized the activities of United States politicians.[14,15] However, we found it difficult to relate this information to law-making activity and, moreover, its relevance outside the United States was questionable. For example, politics in the United States is particularly partisan and political activity is often "purely symbolic".[16]

Resources used for law-making

To estimate the parliamentary resources used for law-making, we investigated the time devoted to legislative sessions.[13] Specifically, we regarded the proportion of time that the New Zealand Parliament devoted to "sitting days" as a proxy for the proportion of parliamentary resources devoted to law-making (Table 1). This approach provided a plausible estimate of 26.7% (standard deviation, SD: 4.1).

To estimate the policy advice resources used for law-making, we used a 2010 New Zealand publication on the cost of the policy advice provided by government agencies to parliament.[17] However, this publication did not report the proportion of policy advice related to law-making. Consequently, we analysed the contents of a list of "significant policy issues" reported by New Zealand government agencies included in the publication.[17] Of the 126 policy issues listed, 21 (16.7%; SD: 3.3) concerned activities that were related to a new piece of legislation (i.e. an act or regulation) or to a review of existing legislation or of a regulatory framework, either of which might have resulted in a change in legislation. Since the list of policy issues did not include keywords or terms directly related to legislation, some policy issues that might have resulted in legislative changes may have been missed and the analysis may have produced a conservative estimate of the proportion of policy advice related to law-making.

Cost of new legislation

The number of acts and regulations that were passed in New Zealand each year between 1999 and 2010 is shown in Table 2. The mean page length of the acts and regulations passed in each year was used as a crude proxy for the time required to develop and debate them and, hence, for the resources used to produce them. The page lengths reported in Table 2 vary considerably between different pieces of legislation. In particular, some regulations have more pages than some acts because an act may be an amendment act, which contains relatively little detail.

Details of the variables and methods used in our analysis and the results of a worked example, without an uncertainty analysis, are shown in Table 3. In brief, the analysis involved three steps. First, the annual cost of inputs to law-making (i.e. parliamentary activity and policy advice from government agencies) was derived using data available from the New Zealand Treasury and other government bodies. Second, the proportion of the cost that was attributable to producing all acts or all regulations was determined separately using the mean page length of an act or regulation. Third, the annual cost of all acts or of all regulations was divided by the annual number of acts or regulations, respectively, to derive the average cost of a new act or regulation.

The results of the probabilistic sensitivity analysis are shown in Table 4. The estimated mean cost of an act was approximately 2.6 million United States dollars (US$), with a large 95% UI: 1.5 to 4.4 million. The mean cost of a regulation was US$ 382 000 (95% UI: 221 000 to 665 000). The main factor responsible for the uncertainty was the number of acts and regulations passed per year. Considering both acts and regulations together, the average cost per page of legislation was US$ 32 434 (Table 3).

Cost comparison with the United States

To provide a comparison with the estimates produced for New Zealand, we also calculated the cost of enacting a government bill, which is the main legislative output at the state level, in the United States (Table 5). In 2008 and 2009, the average cost of a bill was approximately US$ 980 000, or only one third the average cost of an act in New Zealand and just over twice the average cost of a regulation. However, it is likely that our analysis of United States bills substantially underestimated their true cost since it did not include a proportion of the cost of maintaining state government buildings or a proportion of the cost of the financial administration of the state government, both of which were included in the New Zealand analysis.

Discussion

This work details a new method for estimating the cost to government of developing new legislation. It captures components of the law-making process that were not included in previous

Table 1. **Time allocated to sitting days[a] by the New Zealand Parliament, 2001–2010[b]**

Variable	Value (SD)	Comment
Average annual number of sitting days during 2001–2010, days	80.6 (12.5)	Range: 60 to 93 days
Average duration (hours) of a sitting day	5.7 (NA)	New Zealand Parliament sitting days are currently scheduled for each Tuesday (6.5 h), Wednesday (6.5 h) and Thursday (4 h)
Average annual duration (hours) of all sitting days	459.4 (NA)	Average annual number of sitting days times average duration of a sitting day
Potential annual duration (hours) of all parliamentary time	1722.9 (NA)	260.7 potential days of parliamentary time after deduction of weekends, annual leave (20 days) and public holidays (11 days). The average day was assumed to be 7.5 hours
Proportion (%) of parliamentary time allocated to sitting days	26.7 (4.1)	Annual duration of all sitting days as a percentage of the annual duration of all parliamentary time

NA, not applicable; SD, standard deviation.
[a] The proportion of sitting days was used as a proxy for the proportion of parliamentary resources devoted to law-making.
[b] Only the 10-year period from 2001 to 2010 was covered since data on sitting days were not routinely collected before 2001.
Source: Personal communication, Natalie Smith, parliamentary service librarian, Wellington, New Zealand, 2011.

Table 2. **Acts and regulations passed by the New Zealand Parliament,[18] 1999–2010[a]**

Year	No. of acts	No. of regulations	Number of pages[b]					
			Acts			Regulations		
			Total no.	Mean	Range	Total no.[c]	Mean	Range
1999	23	82	1032	45	7–183	196	10	3–25
2000[d]	18	57	1154	64	9–299	218	11	4–35
2001	15	83	1472	98	8–423	169	13	6–33
2002	21	94	2300	110	12–438	179	9	5–23
2003[d]	32	106	2159	67	7–275	182	9	2–35
2004	18	99	1577	88	20–319	304	15	2–36
2005	13	70	907	70	8–186	306	15	5–51
2006[d]	20	116	1643[e]	82[e]	5–330[e]	228	11	2–67
2007	12	118	627	57	10–294	279	14	2–39
2008	22	148	1189	54	8–156	168	8	2–21
2009[d]	10	139	978	98	5–459	90	5	2–12
2010	20	202	1444	72	4–209	195	10	2–51
Total for all years	224	1314	NA	NA	NA	NA	NA	NA
Mean (SD) per year	18.7 (5.9)	109.5 (39.5)	NA	NA	NA	NA	NA	NA
Range for all years	NA	NA	627–2300	45–110	4–459	90–306	5–15	2–67
Mean (SD) for all years	NA	NA	NA	73.9 (5.5)	NA	NA	11.1 (0.6)	NA

NA, not applicable; SD, standard deviation.

[a] The period 1999 to 2010 covered four electoral cycles: the government was led by centre-left parties between 2000 and 2008 and by centre-right parties in 1999 and between 2009 and 2010. All governments involved coalitions with minor parties.

[b] The number of pages in the PDF version of each act or regulation.

[c] Given the large number of regulations, the total included only a random sample of 20 regulations for each year.

[d] The first full year of a new parliament. Usually an election would take place in November in the preceding year.

[e] The calculation excluded one act, the Income Tax Act 2007, which was an extreme outlier 3588 pages in length.

methods[13] but is still reasonably practical, since the data required are available in most developed countries. Therefore, we think our general method could be employed by researchers in other jurisdictions to perform cost-effectiveness analyses of the use of new laws as public health interventions, thereby enabling comparisons to be made with other types of intervention. However, researchers must make their own estimates of input parameters, such as the percentage of time that policy agencies and parliament spend on legislation, the average page length of an act or regulation and total parliamentary and public agency costs.

The perspective on costs used in this analysis, which was the cost to government, is likely to have produced a reasonable estimate of the cost of developing a new law. Nevertheless, the estimate would probably have been substantially greater if a full societal perspective had been adopted. For example, some industries run multimillion dollar campaigns opposing proposed new laws (e.g. laws relating to tobacco control or greenhouse gas pricing schemes). In addition, the development of a new law may also involve substantial inputs from individual citizens and community groups.

The use of parliamentary sitting days to estimate the proportion of parliamentary activity devoted to law-making has not been validated. However, this approach appears reasonable because sitting days are mainly used to debate new laws. On the one hand, our approach may underestimate the time devoted to law-making since, on days other than sitting days, politicians spend time drafting and revising laws. For example, they may participate in select committees considering new bills. In particular, such committees often involve Ministers of the Crown, who are the key law-makers in New Zealand. They are also the politicians who have the largest salaries and the greatest influence on how other parliamentary staff and resources are used. Activity may also be underestimated because, occasionally, parliament carries out additional law-making work as a matter of "urgency" and this work may be particularly expensive and disruptive to other parliamentary activities. On the other hand, our approach might produce an overestimate for three reasons. First, some politicians do not attend the debating chamber during parliamentary sitting days because they can vote by proxy. Second, some time during sitting days is spent on activities that do not involve law-making (e.g. "question time" often deals with other issues). Third, some ostensibly law-related activity concerns bills from opposition Members of Parliament that appear to be largely symbolic in nature and have little chance of progressing beyond a first reading. Nevertheless, in some cases, this activity is considered a practice run for similar legislation that may be introduced by future parliaments.

In addition, our use of the page length of an act or regulation as a proxy for its complexity has not been validated, though it is reasonable to assume that a longer piece of legislation will take longer to draft and debate. Furthermore, page lengths are used only to compare the times devoted to acts and regulations. Their use does not alter the total cost of legislation (i.e. of all acts and regulations combined).

Although the results of our analysis may be generalizable to other developed countries, comparability may be limited by peculiarities of the New Zealand political system. For example, the mixed-

Table 4. **Uncertainty[a] in the cost of a new law or regulation, New Zealand, 1999–2010**

Variable	Cost (US$)	
	New act	New regulation
Mean	2 551 000	382 000
Median	2 405 000	360 000
2.5th percentile	1 476 000	221 000
25th percentile	2 002 000	300 000
75th percentile	2 937 000	440 000
97.5th percentile	4 436 000	665 000

US$, United States dollar.
[a] Percentiles were estimated by probabilistic sensitivity analysis involving 2000 iterations using @Risk for Excel version 5.7 (Palisade Corporation, Ithaca, USA).

member proportional voting system in the country leads to a relatively large number of political parties – there were eight in early 2012 – and prolonged interparty negotiations are often required before laws can be passed. In addition, the relatively short 3-year electoral cycle can lead politicians to spend a disproportionate amount of time in electioneering rather than law-making.

On the other hand, the New Zealand political system is particularly efficient because parliament is small – there were only 121 Members of Parliament in early 2012 – and there is little corrup-

Table 3. **Method used to calculate the cost of a new act or regulation, New Zealand, 1999–2010**

Variable	Value[a]	Data or method of calculation
Parliamentary input to law-making		
$TP = total annual cost of running the parliamentary service, including salaries for politicians and staff, capital investment and overheads	US$ 94 072 494	US$ 94.07 million for the 2009–2010 year, reported by the New Zealand Treasury[19]
%P = proportion of parliamentary activity attributed to law-making	26.7%	Calculated using the sitting-days method (Table 1)
$P = annual cost of parliamentary activity attributed to law-making	US$ 25 084 907	$P = $TP x %P
Government agency input to law-making		
$TA = total annual cost of all government agencies providing policy advice to other branches of government and parliament. The full cost includes depreciation and the capital charge for the agencies[b]	US$ 354 929 618	US$ 354.93 million for the 2009–2010 year[17]
%A = proportion of policy advice related to generating new laws	16.7%	See main text
$A = total annual cost of policy advice related to new laws provided by government agencies to parliament	US$ 59 273 246	$A = $TA x %A
Legislative outputs		
Na = average annual number of acts	18.7	See Table 2
La = average number of pages per act	73.9	See Table 2
Act output = total annual act output, pages	1381.9	Act output = Na x La
Nr = average annual number of regulations	109.5	See Table 2
Lr = average number of pages per regulation	11.1	See Table 2
Reg output = total annual regulation output, pages	1215.5	Reg output = Nr x Lr
Total output = total annual act and regulation output, pages	2597.4	Total output = act output + reg output
Pa = proportion of legislative output comprising acts (weighted by page length)	0.53	Pa = Act output/Total output
Pr = proportion of legislative output comprising regulations (weighted by page length)	0.47	Pr = Reg output/Total output
Total cost		
Total cost = total annual cost of parliamentary activity and policy advice attributed to law-making	US$ 84 million	Total cost = $P + $A
Total cost A = total annual cost of acts	US$ 45 million	Total cost A = Total cost x Pa
Total cost R = total annual cost of regulations	US$ 39 million	Total cost R = Total cost x Pr
Average cost		
Act cost = average cost of a new act	US$ 2.6 million	Act cost = Total cost A/Na
Reg cost = average cost of a new regulation	US$ 382 000	Reg cost = Total cost R/Nr
Page cost = average cost per page of acts and regulations collectively	US$ 32 434	Page cost = Total cost/Total output

US$, United States dollar.
[a] Monetary values were converted from New Zealand dollars to United States dollars using the 2010 exchange rate of 1 United States dollar = 1.387 New Zealand dollars.
[b] We used data reported by the New Zealand Ministry of Foreign Affairs and Trade to the Committee to Review Expenditure on Policy Advice.[17] The cost of policy advice from agencies that deal primarily with legal issues, such as the Crown Law and the Law Commission, was also included.[17]

Table 5. **Cost of a government bill in the United States,[a] 2008–2009**

Cost breakdown	Cost (US$)
Judicial and legal component of administration costs[a,b]	20 442 and 128 000
Bills enacted[c] during regular legislative sessions in 2008–2009,[20] no.	20 516
Bills enacted[c] during special legislative sessions in 2008–2009,[20] no.	353
Total bills enacted in 2008–2009, no.	20 869
Average number of bills enacted per state in 2008–2009, no.	417
Cost per bill, US$	979 545

US$, United States dollars.

[a] Costs were derived using the most recent data from 50 state governments in the United States, which were for the fiscal period 1 July 2008 to 30 June 2009.[21]

[b] Neither the cost of maintaining state government buildings nor the cost of the financial administration of the state government were taken into account.

[c] A large proportion of state government bills are introduced but not enacted (e.g. 82% in 2009).[20]

tion: New Zealand was ranked lowest in the world for corruption in 2009.[22]

Applying our approach to other countries may involve taking into account two further considerations: (i) the law-making costs associated with an upper house or senate (New Zealand has neither); and (ii) whether or not legislation is divided into acts and regulations.

In summary, our results suggest that the cost of law-making is worthy of consideration and that it should ideally be included in economic evaluations of public health interventions that require a new law. Although our method for estimating the cost of law-making has limitations, it appears to capture the main government costs of developing a new law and to be generally applicable to other developed countries. ■

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ملخص

تقدير تكلفة تشريعات الصحة العمومية الجديدة

الغرض وضع أسلوب جديد لتقدير التكلفة التي تتكبدها الحكومات جراء سن تشريعات الصحة العمومية.

الطريقة اعتمدنا منظوراً حكومياً مركزياً لدى تقدير التكاليف. وتم حساب التكلفة البرلمانية للقوانين واللوائح التشريعية في نيوزيلندا من نسبة الفترات البرلمانية المكرسة لسنّ القوانين (أي أيام الجلسات في غرفة النقاش) وتم حساب تكلفة الاستشارات السياسية ذات الصلة التي تقدمها الأجهزة الحكومية من نسبة المسائل السياسية الموثقة ذات الصلة بسن القوانين. وتم تقدير التكاليف النسبية للقوانين واللوائح من عدد الصفحات التي تحتويها التشريعات.

النتائج وفق تقديراتنا، في الفترة ما بين عامي 1999 و2010، تم تخصيص 26.7 ٪ من الموارد البرلمانية و16.7 ٪ من الاستشارات السياسية التي تقدمها الأجهزة الحكومية بغية إصدار قوانين جديدة في نيوزيلندا. وكان متوسط تكلفة القانون 2.6 مليون دولار أمريكي (فاصل الاحتمال 95 ٪، فاصل الاحتمال: من 1.5 إلى 4.4 مليون) وكان متوسط تكلفة اللائحة 382000 دولار أمريكي (فاصل الاحتمال 95 ٪: من 221000 إلى 665000). ولأغـراض المقارنة، بلغ متوسط تكلفة مشروع قانون سنته حكومات الولايات الخمسين في الولايات المتحدة الأمريكية بين عامي 2008 و2009 مبلغ 980000 دولار أمريكي.

الاستنتاج استطعنا تقدير تكلفة التشريعات الجديدة في نيوزيلندا. وبدا أن أسلوبنا في تقدير هذه التكلفة يتضمن التكاليف الحكومية الرئيسية ويبدو أنه قابل للتطبيق عموماً على البلدان المتقدمة الأخرى. وينبغي، في الأوضاع المثالية، إدراج هذه التكاليف في التقييمات الاقتصادية لتدخلات الصحة العمومية التي تنطوي على تشريعات جديدة.

摘要

估算新的公共卫生立法的成本

目的 开发估算政府制定公共卫生立法的成本的新方法。

方法 我们从中央政府的角度来估算成本。新西兰的立法法案和法规的议会成本根据议会专用于制定法律的时间比例计算（即在辩论室里列席的天数），政府机构的相关政策意见的成本根据记录在案的制定法律相关的问题的比例计算。法案和法规的相关成本根据立法的页数估算。

结果 根据我们的估算，在1999 年至2010 年期间，新西兰有26.7%的议会资源和16.7%的政府机构政策意见用于制定新的法律。一项法案的平均成本是260 万美元（95%的不确定性区间，UI：150 至440 万），一项法规的平均成本是38.2 万美元（95% UI：22.1 万至66.5 万）。相比之下，美国2008 年至2009 年50 个州政府制定一项法案的平均成本为98 万美元。

结论 我们能够估算新西兰制定新立法的成本。我们的估算方法似乎捕捉到所涉及的主要政府费用，看起来也普遍适用于其他发达国家。理想的情况下，在涉及新立法的公众卫生干预的经济评价中应包含这些成本。

Résumé

Estimation du coût d'une nouvelle législation relative à la santé publique

Objectif Mettre au point une nouvelle méthode d'estimation du coût de la promulgation de lois de santé publique pour les gouvernements.

Méthodes Nous avons adopté la perspective du gouvernement central pour l'estimation des coûts. Le coût parlementaire des règlements et actes législatifs en Nouvelle-Zélande a été calculé au prorata du temps parlementaire consacré à l'élaboration des lois (plus précisément en jours de séance dans la chambre des débats), et le coût des conseils politiques associés fournis par les agences gouvernementales a été calculé au prorata des publications politiques documentées relatives à l'élaboration des lois. Les coûts relatifs des lois et règlements ont été estimés à partir du nombre de pages contenues dans la législation.

Résultats Nous avons estimé qu'entre 1999 et 2010, 26,7% des ressources parlementaires et 16,7% des conseils politiques des agences gouvernementales ont été alloués à la proposition de nouvelles lois en Nouvelle-Zélande. Le coût moyen d'une loi était de 2,6 millions de dollars américains (intervalle d'incertitude de 95%, II: 1,5 à 4,4 millions), et le coût moyen d'un règlement était de 382 000 $ (II de 95%: 221 000 à 665 000). À titre de comparaison, le coût moyen d'un projet de loi adopté par les 50 gouvernements fédéraux des États-Unis d'Amérique entre 2008 et 2009 était de 980 000 $.

Conclusion Nous avons été en mesure d'estimer le coût de la nouvelle législation en Nouvelle-Zélande. Notre méthode d'estimation de ce coût semblait englober les principaux coûts gouvernementaux concernés et paraît être globalement applicable à d'autres pays développés. Dans l'idéal, de tels coûts devraient être inclus dans les évaluations économiques des interventions de santé publique qui impliquent une nouvelle législation.

Резюме

Оценка стоимости нового законодательства о здравоохранении

Цель Разработать новый метод оценки стоимости принятия законодательства о здравоохранении для государства.

Методы Мы посмотрели на оценку стоимости с точки зрения центрального правительства. Стоимость парламентских законодательных актов и постановлений в Новой Зеландии была рассчитана на основе доли парламентского времени, затрачиваемого на законотворчество (например, дни заседаний в сессионном зале), а стоимость сопутствующих консультаций с государственными органами рассчитывалась на основе доли принятых регулирующих документов, связанных с законотворчеством. Относительная стоимость законов и нормативных актов оценивалась на основе количества страниц в законодательных актах.

Результаты Мы оценили, что в период между 1999 и 2010 гг. в Новой Зеландии 26,7% парламентских ресурсов и 16,7% консультаций государственных органов были посвящены разработке новых законов. Средняя стоимость законодательного акта составила 2,6 млн. долл. США (95% интервал неопределенности, ИН: от 1,5 до 4,4 млн.), а средняя стоимость постановления составила 382 000 долларов США (95% ИН: от 221 000 до 665 000). Для сравнения, средняя стоимость законопроекта, принятого правительствами 50 штатов в Соединенных Штатах Америки в период с 2008 по 2009 гг. составила 980 000 долларов США.

Вывод Мы смогли оценить стоимость нового законодательства в Новой Зеландии. Наш метод оценки этой стоимости, судя по всему, учел основные расходы правительства и, вероятно, в общем виде применим к другим развитым странам. Желательно, чтобы такие расходы учитывались при экономических оценках мероприятий в области общественного здравоохранения, которые связаны с новым законодательством.

Resumen

Cómo calcular el coste de una legislación nueva sobre sanidad pública

Objetivo Desarrollar un método nuevo para calcular el coste que supondría a los gobiernos la promulgación de una legislación sobre sanidad pública.

Métodos Hemos adoptado la perspectiva de un gobierno central para calcular los costes. El coste parlamentario de los actos legislativos y reglamentos en Nueva Zelandia se calculó en función de la proporción de tiempo parlamentario consagrado a la creación de la ley (es decir, de los días de sesión en la cámara de debate) y el coste del asesoramiento sobre políticas por parte de las agencias gubernamentales se calculó a partir de la proporción de cuestiones políticas documentadas relacionadas con la creación de la ley. Los costes relativos de las leyes y los reglamentos se calcularon en función del número de páginas en la legislación.

Resultados Se calculó que, entre los años 1999 y 2010, se dedicó el 26,7% de los recursos parlamentarios y el 16,7% del asesoramiento político procedente de las agencias gubernamentales a la creación de nuevas leyes en Nueva Zelandia. El coste medio de una ley fue de US$ 2,6 millones (95% intervalo de incertidumbre, II: entre 1,5 y 4,4 millones) y el coste medio de un reglamento fue de US$ 382 000 (95% II: de 221 000 a 665 000). A modo de comparativa, el coste medio de un proyecto de ley promulgado por los 50 estados miembros de los Estados Unidos de América entre 2008 y 2009 fue de US$ 980 000.

Conclusión Hemos podido calcular el coste de una nueva legislación en Nueva Zelandia. Nuestro método para calcular este coste abarcó los principales gastos gubernamentales implicados y podría aplicarse a otros países desarrollados. Lo ideal sería que dichos costes se incluyeran en las evaluaciones económicas de aquellas intervenciones de la sanidad pública que implicaran una legislación nueva.

References

1. Moulton AD, Mercer SL, Popovic T, Briss PA, Goodman RA, Thombley ML et al. The scientific basis for law as a public health tool. *Am J Public Health* 2009;99:17–24. doi:10.2105/AJPH.2007.130278 PMID:19008510
2. Goodman RA, Moulton A, Matthews G, Shaw F, Kocher P, Mensah G et al. Law and public health at CDC. *MMWR Morb Mortal Wkly Rep* 2006;55(Suppl 2):29–33. PMID:17183242
3. Magnusson R, Patterson D. Role of law in global response to non-communicable diseases. *Lancet* 2011;378:859–60. doi:10.1016/S0140-6736(11)60975-6 PMID:21890035
4. *Choosing interventions that are cost effective (WHO-CHOICE)*. Geneva: World Health Organization; 2012. Available from: http://www.who.int/choice/costs/en [accessed 23 April 2012].
5. Cobiac LJ, Vos T, Veerman JL. Cost-effectiveness of interventions to reduce dietary salt intake. *Heart* 2010;96:1920–5. doi:10.1136/hrt.2010.199240 PMID:21041840
6. Asaria P, Chisholm D, Mathers C, Ezzati M, Beaglehole R. Chronic disease prevention: health effects and financial costs of strategies to reduce salt intake and control tobacco use. *Lancet* 2007;370:2044–53. doi:10.1016/S0140-6736(07)61698-5 PMID:18063027
7. Oregon State Legislature [Internet]. *Oregon state legislature: 2012 session information.* Salem: OSL; 2012. Available from: http://www.leg.state.or.us [accessed 23 April 2012].
8. Vos T, Carter R, Barendregt J, Mihalopoulos C, Veerman L, Magnus A, et al. *Assessing cost-effectiveness in prevention: ACE–prevention. Final report*. Brisbane & Melbourne: University of Queensland and Deakin University; 2010.
9. Blakely T, Foster R, Wilson N, Costilla R, Tobias M, Sarfati D, et al. *Burden of disease epidemiology, equity and cost-effectiveness (BODE^3) study protocol. Version 1.0*. Wellington: University of Otago; 2011 (Technical Report No. 3). Available from: http://www.otago.ac.nz/wellington/otago019355.pdf [accessed 23 April 2012].
10. New Zealand legislation [Internet]. Glossary. Wellington: New Zealand Government; 2012. Available from: http://www.legislation.govt.nz/glossary.aspx [accessed 23 April 2012].
11. Wilson N, Imlach Gunasekara F, Thomson G. The benefits and harms of alcohol use in New Zealand: what politicians might consider. *N Z Med J* 2011;124:85–9. PMID:21946748
12. Briggs A, Claxton K, Sculpher M. Making decision models probabilistic. In: Briggs A, Claxton K, Sculpher M, editors. *Decision modelling for health economic evaluation*. New York: Oxford University Press; 2006.
13. Holcombe RG, Sobel RS. Empirical evidence on the publicness of state legislative activities. *Public Choice* 1995;83:47–58. doi:10.1007/BF01047682
14. Mayhew D. *The electoral connection*. New Haven: Yale University Press; 1974.
15. Grimmer J, King G. General purpose computer-assisted clustering and conceptualization. *Proc Natl Acad Sci USA* 2011;108:2643–50. doi:10.1073/pnas.1018067108 PMID:21292983
16. King A. The vulnerable American politician. *Br J Pol Sci* 1997;27:1–22. doi:10.1017/S000712349700001X
17. Committee to Review Expenditure on Policy Advice. *Improving the quality and value of policy advice: findings of the committee appointed by the government to review expenditure on policy advice*. Wellington: New Zealand Government; 2010.
18. New Zealand legislation [Internet]. Advanced Search. Wellington: New Zealand Government; 2012. Available from: http://www.legislation.govt.nz/act/searchadvanced.aspx [accessed 23 April 2012].
19. *Vote parliamentary service: the estimates of appropriations 2010/11*. Wellington: New Zealand Treasury; 2011. Available from: http://www.treasury.govt.nz/budget/2010/estimates/est10parser.pdf [accessed 23 April 2012].
20. *Book of the states 2010*. Lexington: The Council of State Governments; 2010. Available from: http://knowledgecenter.csg.org/drupal/content/book-states-2010-chapter-3-state-legislative-branch [accessed 23 April 2012].
21. Barnett J. *State and local government finances summary: 2008*. Washington: United States Census Bureau; 2011. Available from: http://www2.census.gov/govs/estimate/08statesummaryreport.pdf [accessed 23 April 2012].
22. *Transparency International annual report 2009*. Berlin: Transparency International; 2009. Available from: http://www.transparency.org/publications/publications/annual_reports/ti_ar2009 [accessed 23 April 2012].