

Evidence Use (or Not!)



Our goal is to get decision makers to have knowledge of facts and use them

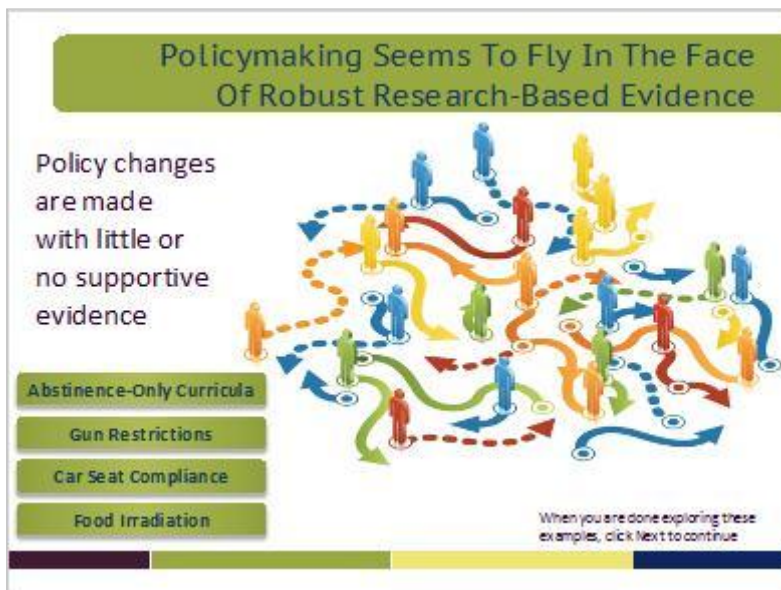


What the Evidence-Based Health Policy Project shares with others who try to inform public policy discussions is our goal of getting decision makers to have knowledge of the facts and to use them.

Policy Despite Evidence



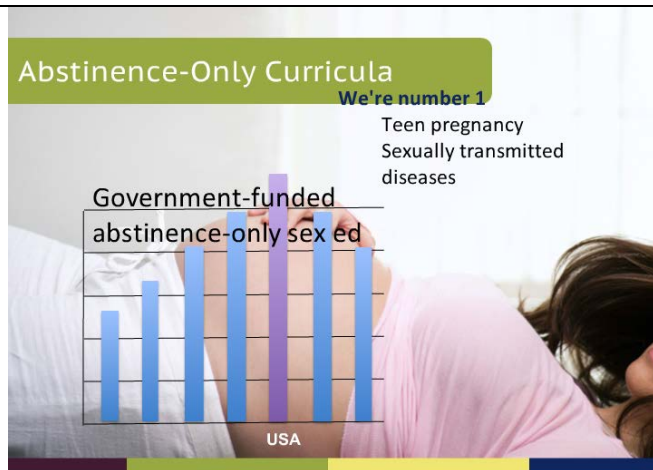
We see over and over again that policy making often seems to fly in the face of robust research.



There is just a ton of evidence around all these issues and yet sometimes policy seems to proceed as if that evidence were irrelevant.

Let's examine some recent examples. Click on each example to learn more....

Explore Some Examples (Interaction)

Abstinence-Only Curriculum

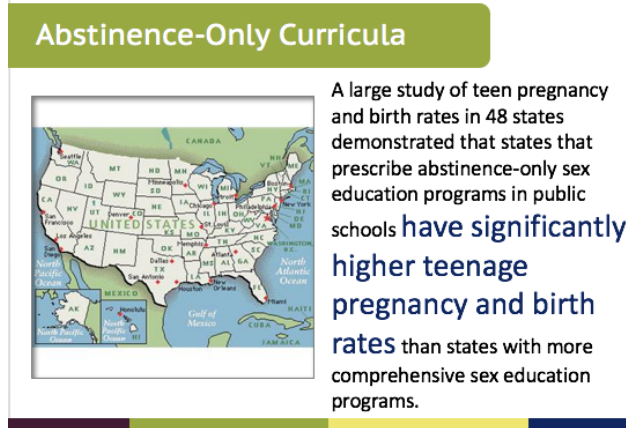
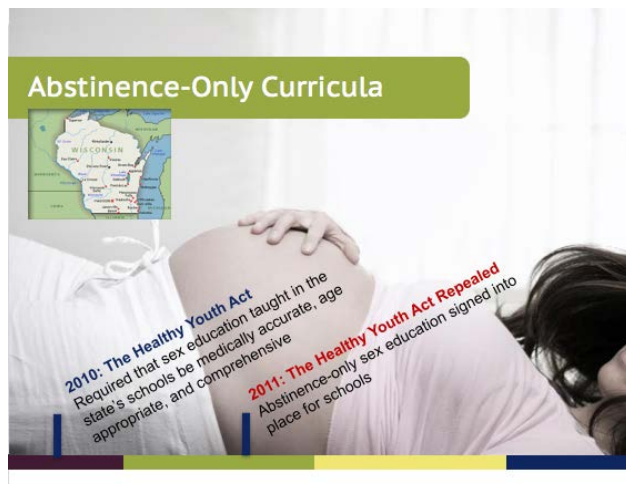
The US ranks first among developed nations in rates of both teen pregnancy and sexually transmitted disease. In an effort to reduce both these rates, the US government and many states have funded abstinence-only sex education programs in public schools for over a decade.

In 2010 the Wisconsin legislature passed The Healthy Youth Act, requiring that sex education taught in the state's schools be medically accurate, age appropriate, and comprehensive. It required the teaching of the "health benefits, side effects, and proper use of contraceptives." The very next year, 2011, the legislature repealed the Healthy Youth Act and signed in its place an abstinence-only sex education bill for schools.

While this may mirror the hopes and values of many voters, abstinence-only sex education is simply not supported by the evidence. An extensive body of peer-reviewed, published, scientific research on what works to protect young people from HIV/AIDS, sexually transmitted infections (STIs) and unplanned pregnancy reveals no evidence that abstinence-only programs either delay sexual initiation or reduce STIs or pregnancy.

In fact, a large study of teen pregnancy and birth rates in 48 states, demonstrated that states that prescribe abstinence-only sex education programs in public schools have significantly higher teenage pregnancy and birth rates than states with more comprehensive sex education programs.

Even more troubling is that Wisconsin's new bill gives school districts offering sex education courses the option of stressing that abstinence is the *only* reliable way to prevent pregnancy and sexually transmitted infections. This is the



Explore Some Examples (Interaction)

clearly inaccurate medical information.

Chris Collins, P. Alagiri, et.al., "Abstinence Only vs. Comprehensive Sex Education: What are the arguments? What is the evidence? AIDS Research Institute, University of California, San Francisco. Policy Monograph Series – March 2002.

<http://ari.ucsf.edu/science/reports/abstinence.pdf>

University of Georgia (2011, November 29).

Abstinence-only education does not lead to abstinent behavior, researchers find. Science Daily.

<http://www.sciencedaily.com>

[/releases/2011/11/111129185925.htm](http://www.sciencedaily.com/releases/2011/11/111129185925.htm)

Why do you think this evidence is ignored?

Why do you think this evidence is ignored?

What values surround this issue?

What would you recommend as a public health professional?



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Gun Restrictions

Gun Policy

Firearms are the 2nd leading cause of injury-related death in America.



Areas with more firearms have more homicides, suicides, unintentional firearm deaths.

Children in places with more guns are more likely to experience all of these outcomes. In high-income countries with more guns, **more women are murdered by guns**; and are more likely to be murdered at home.


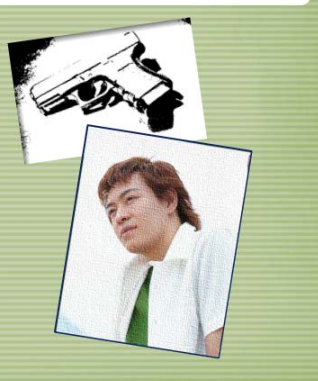
Twice as many women are murdered by a husband or an intimate using guns than by strangers using guns, knives, or any other means.

What about gun policy? The majority of studies – and all *credible* studies show no net benefit and a high social cost of firearms.

Here's a summary of the literature surrounding gun policy:

- Firearms are the 2nd leading cause of injury related death in America.
- Whether we are talking about regions, cities, states, or countries: areas with more firearms have more homicides, suicides, and unintentional firearm deaths;
- Children in places with more guns are more likely to experience all of these outcomes;
- In high-income countries with more

Explore Some Examples (Interaction)

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| | <p>guns, more women are murdered by guns; and are more likely to be murdered at home.</p> <ul style="list-style-type: none"> Twice as many women are murdered by a husband or an intimate using a gun than by a stranger using guns, knives, or any other means. <p><i>David Hemenway, "A Public Health Approach to Firearms Policy," in David Mechanic, ed., <u>Policy challenges in Modern Health</u>, (New Brunswick, NJ: Rutgers Univ Press, 2004.)</i></p> |
| <div data-bbox="168 678 493 785"> <p>Gun Policy Firearms are the 2nd leading cause of injury-related death in America.</p> </div> <div data-bbox="168 785 542 1108">  </div> <div data-bbox="542 657 808 1058"> <p>Do guns make us safer?</p> <p>Most people who have used guns in self-defense report that they did so during escalating arguments - NOT to protect themselves against a criminal threat.</p> <p>Maybe a better policy solution would be training in dispute resolution?</p> </div> | <p>Do guns make us safer?</p> <p>Most people who have used guns in self-defense report that they did so during escalating arguments – not to protect themselves against a criminal threat.</p> <p>Maybe a better policy solution would be training in dispute resolution?</p> |
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Explore Some Examples (Interaction)

Car Seat Compliance

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Drivers who were observed transporting their children **without proper restraints** were sent letters from the Health Department

including details about the time and location, etc.

AND

Including information on child passenger safety

Here is another very typical type of evidence non-use:

A Missouri program designed to improve compliance with a state law to use child restraints in motor vehicles was implemented. Drivers who were observed transporting their children *without* proper restraints were sent letters from the Health Department detailing the observation (including the time and location, etc.)

These drivers were also provided with information on child passenger safety, and a toll-free number to call for more information.

Car Seat Compliance



Two years after implementation a **program evaluation demonstrated little evidence of program effectiveness** and the program was discontinued. Despite this lack of evidence, at least **15 other states adopted** similar programs!

Two years after implementation a program evaluation demonstrated little evidence of program effectiveness, and the program was discontinued.

However, despite the evidence indicating lack of effectiveness, at least 15 other states adopted similar programs.

Land, G., et al. "Missouri's Take a Seat, Please! And Program Evaluation." Journal of Public Health Management and Practice 3, (1997): 51:58.

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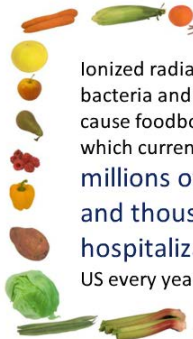
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Explore Some Examples (Interaction)

Food Irradiation

Food Irradiation



Ionized radiation kills bacteria and parasites that cause foodborne diseases which currently cause **millions of infections and thousands of hospitalizations** in the US every year.



The issue of food irradiation also reminds us that the problem of ignoring evidence isn't limited to a particular political position.

Food irradiation is a food safety technology that uses ionized radiation to kill bacteria and parasites that cause foodborne diseases which currently cause millions of infections and thousands of hospitalizations in the US every year. The public health goals are similar to those achieved by pasteurizing milk, pressure cooking canned foods, or chlorinating water.

Food Irradiation



Overwhelming body of scientific evidence
Irradiated food does not become radioactive
Nutritional value is unchanged
SAFE to eat



Food irradiation uses the same technology used to sterilize surgical devices and implants. Food irradiation was first approved in 1963 and its effects on both the food itself and on animals and people consuming treated food have been extensively studied.

An overwhelming body of scientific evidence demonstrate that irradiated food does not become radioactive, its' nutritional value is unchanged, and it is safe to eat. The Centers for Disease Control have concluded that food irradiation is a logical step to reduce foodborne disease in the United States.

Food Irradiation



Perception

Gamma rays...
Electron beams
X-rays



Yet, despite this evidence, public reaction is similar to early concern about microwave ovens. Public reaction also stems from associating the gamma rays, x-rays, or electron beams with nuclear activity or the production of nuclear weapons.

The increased frequency of fairly widespread foodborne outbreaks may eventually overshadow these concerns about irradiation, but until this happens food irradiation is unlikely to be widely used in the food processing industry.

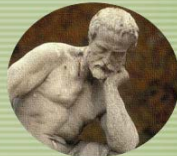
- <http://uw-food-irradiation.engr.wisc.edu/Facts.html>
- http://www.cdc.gov/nczved/divisions/dfbmd/diseases/irradiation_food/

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Policymaking Seems To Fly In The Face

You have just explored a variety of situations where policy decisions are made that are in opposition to good and available evidence.

What Works for Health

Many policies and programs have been proven to improve health.
Check out: <http://whatworksforhealth.wisc.edu/>

The screenshot shows the 'What Works for Health' website interface. It features a search bar, a sidebar with navigation links, and a main content area displaying a table of search results. The table lists various policies and programs, categorized by their evidence level (e.g., 'Scientific Evidence', 'Insufficient Evidence', 'Mixed Evidence'). The results are organized into columns for 'Category', 'Policy or Program', 'Evidence Level', and 'Impact'. The table includes rows for 'Reduce Sexually Transmitted Infections (STIs) & Pregnancy' and 'Reduce Sexually Transmitted Infections (STIs) & HIV/AIDS'.

There are many policies and programs that have been proven to improve public health.

Check out the *What Works for Health* website to learn more. You can choose a category - for example choose *Sexual Activity* or *Community Safety*.

Some programs are described as “Scientifically Supported” while others may appear as having some evidence, insufficient evidence, or mixed evidence.

Our goal is to get decision makers to have knowledge of facts and use them



What we have seen is that the problem doesn't appear to be that there is NOT enough evidence... or that policy-makers don't have access to evidence. The problem is more complex.

The rest of this course is about what we know about getting the available evidence into the policy process.

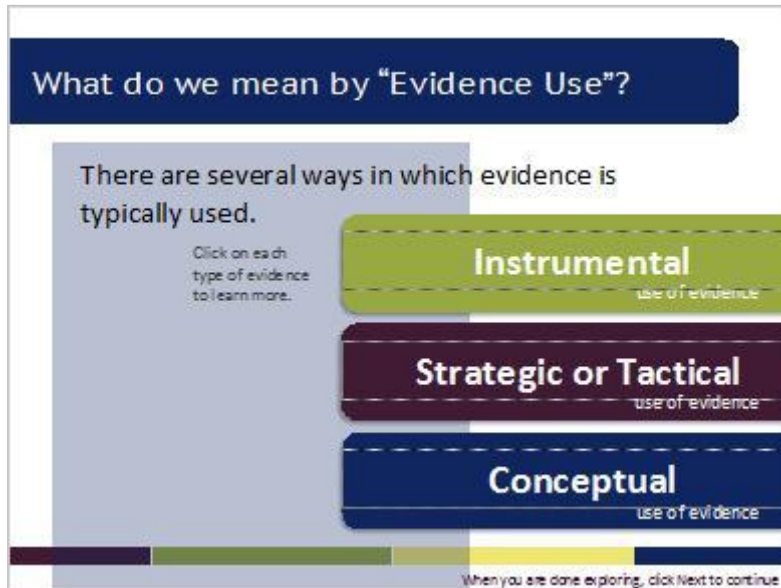
Evidence-based policy is about meeting this challenge.

Ways That Evidence is Used



We see over and over again that policy making often seems to fly in the face of robust research.

What do we mean by “Evidence Use”?



So, what do we mean by “evidence use?” What do we mean when we say we want legislators or other policy makers to use evidence?

There are several ways in which evidence is typically used:

- Instrumentally
- Strategically or tactically, or
- Conceptually.

Click on each area to learn more.

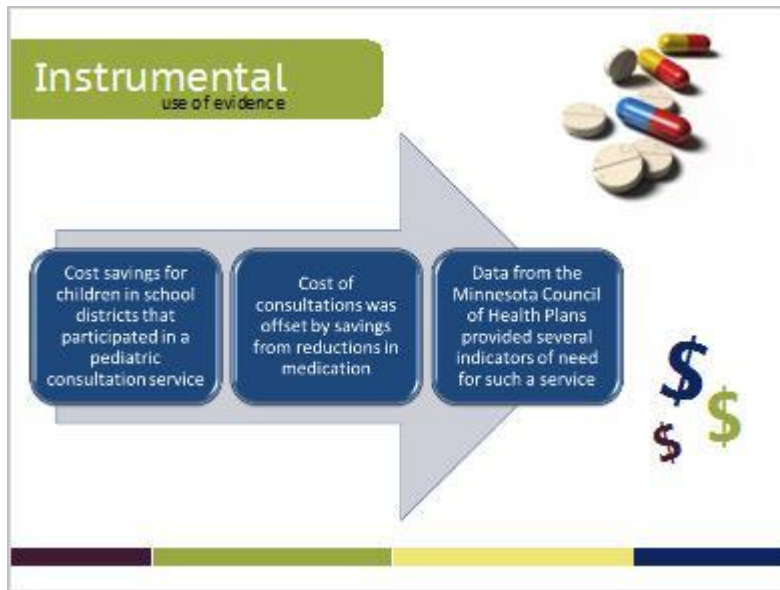
Instrumental



The Instrumental use of evidence is where a specific piece of research has a direct impact on a specific decision. In this case you can trace the impact to a particular vote or policy outcome. This happens sometimes. I think it tends to happen most in cases where the question at hand is largely a technical issue - is it better to run the sewer line this way, or that way? Or where the stakeholders involved don't feel particularly strongly about the outcome - there isn't strong opinion involved.

For example: In 2010 Minnesota passed a law establishing a consultation service for primary care practitioners who prescribe psychotropic medications for children so that they could seek advice from child psychiatrists who had more clinical knowledge of these complex medication issues.

Instrumental (continued)



During the hearings on the bill, very specific pieces of evidence were presented, including:

- Data from a local pilot project that demonstrated the cost savings for children in school districts that participated in a pediatric consultation service;
- Data from Washington state was presented showing that the cost of pediatric consultations was offset by savings from reductions in medication use; and
- Data from the Minnesota Council of Health Plans was also provided, which analyzed claims data and provided several indicators of need for such a service. Their findings noted a lack of FDA-recommended follow-up care for kids on antidepressants; high usage of emergency rooms and hospitals among those with mental health diagnosis, and the high rate of prescribing among non-specialists.

In this case, the legislature made its decision based directly on these (and other) findings. One thing to note about this evidence, is how much it focused on the cost-effectiveness of the proposed program.

Strategic/Tactical

Strategic/Tactical

use of evidence

To support a position already taken or destabilize the opposition

To avoid taking action; provide cover for unpopular positions; give legitimacy to policy

A cartoon illustration of a man in a suit sitting at a desk, looking at a document. He is speaking to an unseen audience, saying, "These are some of my policy assumptions. Find something to back them up." The cartoon is framed in a green border.

Another way that evidence is used is Strategically or Tactically. In this situation evidence is used to support a position or a decision that has already been made. Evidence can also be used in this way to avoid taking any kind of action or to provide cover for unpopular decisions. Evidence is used this way to bring legitimacy to a policy decision. “Experts” and pseudo-experts can be drafted for this purpose. When you see evidence from a very ideological interest group being used to support a decision, this is probably how evidence is being used.

We especially see this type of use in situations where political opinions are of long standing and pretty fixed (that first cartoon we looked at is a good example) -- or where politics is being done according to a very established way of doing things.

Conceptual



Finally, there is the Conceptual use of evidence. This is a very indirect method of evidence use where evidence gradually has a cumulative influence on ways of thinking.

While some people often dismiss the importance of this type of evidence use, actually over time, it can be the most important because it can really reshape the way people think about how both problems and solutions are framed, and can ultimately lead to fundamental shifts in prevailing policy paradigms. Evidence used in this way can alert policy makers to entirely new issues or provide entirely new perspectives on older issues.

Some people refer to this model as a kind of enlightenment - or a sort of consciousness raising. This really highlights a very important feature of this type of evidence use: the unconscious use of research. Evidence may be making an impact so gradually that a policy maker at some point may be unaware of the role that evidence has played in their thinking - but it is there.

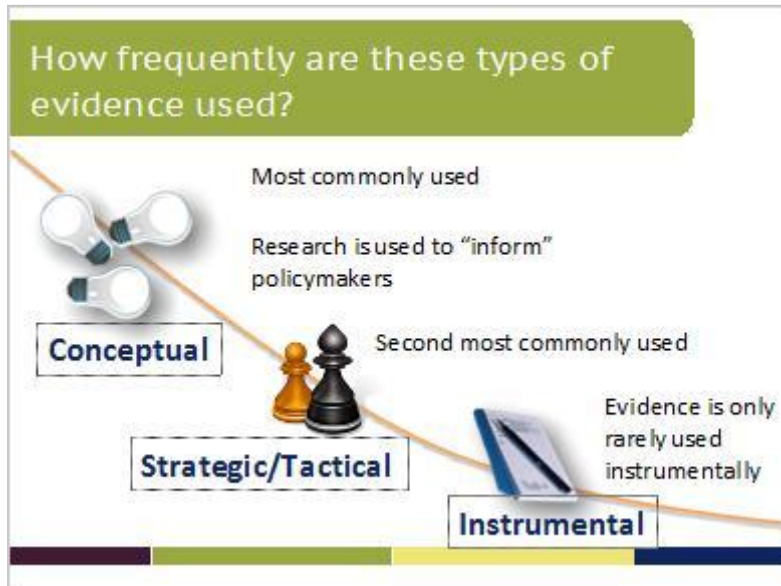
Conceptual (continued)



Critics point out that this is a very inefficient way to deliver evidence. Fair enough. But I think a more serious challenge posed by the conceptual use of evidence is that there is no way to filter out poor quality or out-dated research. Everything is in the pot. So, some people have actually said this is more of an endarkenment model of evidence use than an enlightenment model.

But I will say that empirically, it is the way evidence is most frequently used by policy makers.

How frequently are these types of evidence used?



What do empirical studies show about the frequency of each of these types of evidence use?

As I just mentioned, the Conceptual use of research is the most commonly used on the ground. Policymakers say research is interesting and helpful - they rarely completely ignore it - but it is most often used to "inform" them.

Strategic or tactical use is the second most commonly used way that policymakers use evidence.

To the dismay of most researchers, evidence is only very rarely used instrumentally.

Imposed Use of Evidence



Increasingly, we are seeing something that has been called, "imposed use." For instance the US Department of Education's office of The Safe and Drug Free Schools obliged school districts to select a program that met its "Principles of Effectiveness." School districts widely understood this to mean that they needed to select a program from the Department's list of approved programs.

Because Drug Abuse Resistance Education (better known as D.A.R.E.) evaluations repeatedly showed that DAREs' effectiveness was neither sustained nor led to lowered drug use, the DARE program didn't make the list.

Many districts either dropped or scaled back their use of this program. As a result, DARE has scrambled to become more evidence based over the past 10 years. DARE has incorporated the "Keepin' It Real" model into its program, which has some reasonable evidence of effectiveness, to show that it is now evidence based. The relevant question may be "to what extent have the DARE sites around the US actually incorporated the new program model with what level of fidelity..."

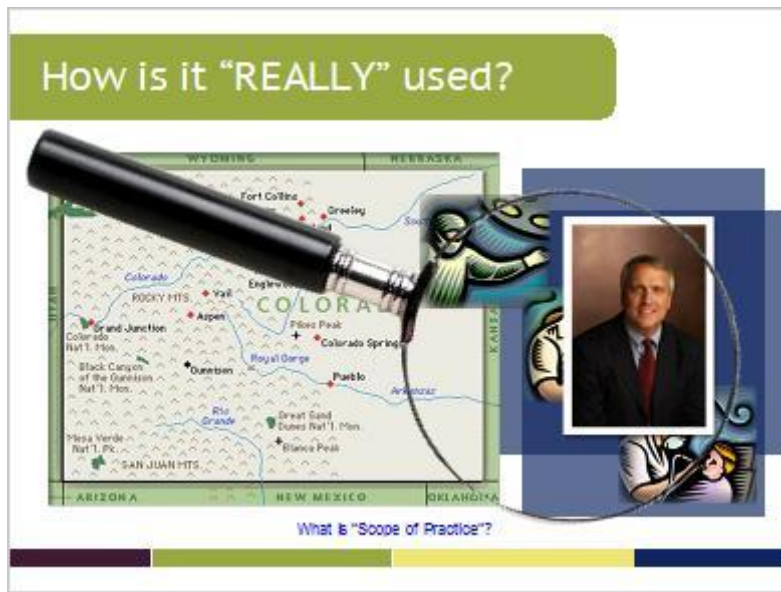
The point is that this kind of imposed use is likely to become more common as government agencies move toward greater accountability.

Citations:

Carol H. Weiss, Erin Murphy-Graham, and Sarah Birkeland, "An Alternative Route to Policy Influence: How Evaluations Affect D.A.R.E." *American Journal of Evaluation* March 2005 vol. 26 no. 1 12-30.

<http://www.dare.com/newdare.asp>

How is it “REALLY” used?



What we've just discussed is a typology - some ideal categories to organize our thoughts. But in reality, on-the-ground-politics is a process and in this process evidence use is multiple and fluid.

Here is an example of evidence use in practice: As you know, health care and health care access have been hot topics of conversation for many years. This is the story of a Colorado Governor, Bill Ritter, and his Task Force on Scopes of Practice.

Around 2005, health care access was a big topic of both expert and public conversation in Colorado. Many felt that the medical profession had too much of a monopoly on practice and that this limited access to health care. They argued that the scope of practice laws in the state should be modified to allow other allied health professionals like dental hygienists, physician assistants, or advanced practice nurses to provide expanded types of medical services.

So, Governor Ritter created a task force to study this issue. The Task Force had enormous credibility. First, it had been commissioned by a very important person - the Governor; it was under the imprimatur of a widely respected Health Institute; and it had very qualified and eminent people serving on it. The person heading the Task Force was the head of the State Public Health Office, so he had population health credentials, but he was also an M.D. with a reputation for having a fairly protectionist stance about doctors. He was considered a fair broker.

Note: Gov. Ritter image from Wikipedia Commons: "This work has been released into the **public domain** by its author, Office of Governor Bill Ritter. This applies worldwide. In some countries this may not be legally possible; if so: *Office of Governor Bill Ritter grants anyone the right to use this work for any purpose, without any conditions, unless such conditions are required by law.*"

Governor Ritter's Task Force

The collage features numerous healthcare professionals in various settings. Top row includes a nurse holding a baby, a male nurse, a female nurse with a clipboard, and a male doctor. Middle row shows a female nurse, a close-up of hands, and a group of medical students. Bottom row includes a female doctor, a male doctor, a female nurse, a male doctor, a female nurse, a male doctor, a female nurse, a male doctor, a female nurse, a male doctor, a female nurse, and a male doctor. The report cover on the right is titled 'Collaborative Scope of Care' and 'FINAL REPORT OF FINDINGS'.

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Over the next 5 years Colorado consistently passed a series of legislation expanding the scopes of practice for many medical professions. So for instance, dental hygienists can practice independently in Colorado --they can set up a shop without a dentist. Midwives are allowed to suture. Many things like that changed.

How Evidence was Used



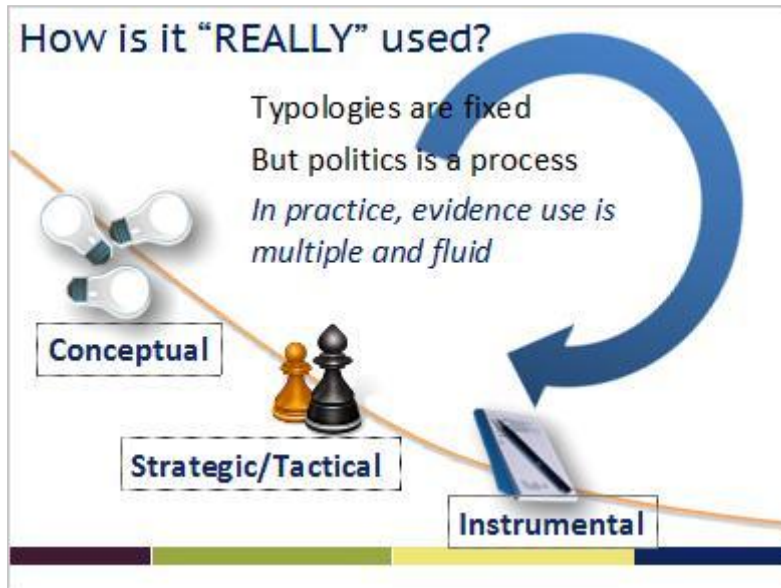
Now, let's consider how the evidence of the Task Force report was used. Well, it was used in a lot of ways at different points in the process.

The whole point of the commission for many people was a strategic one. They knew they wanted to promote this kind of legislation and they commissioned this work so that they would have evidence to support this policy. Perhaps this was even true for the Governor (we can't know).

For other people, the Task Force's work really did influence them. Speaking to people on the Task Force, some said, "Wow, I really was convinced by the wealth of evidence here that these people can practice with equal skill and safety, and I changed my mind." And so, for them it had instrumental use.

It also has continuing conceptual impact. The report was widely circulated and continues to be cited in policy conversations. Moving forward, different professional groups could also use the report tactically to push for further legislation.

Evidence used is Multiple and Fluid



Typologies are fixed, but politics is a process.

In practice, evidence use is multiple and fluid.

The evidence was used differently depending on who you were and where you were in that process. So while typologies are helpful, remember that the way things actually happen can be pretty multi-faceted.

Scopes of Practice



The Colorado Scope of Practice Task Force work continues to be referenced and discussed as health care policy in the United States continues to undergo changes.

If you are interested in learning more about the Colorado Task Force on Scopes of Practice, there is a lot of information on the web. As I mentioned a little earlier, the Evidence-Based Health Policy Project holds regular briefings about important policy topics. Dr. Ned Calonge presented at one of those briefings; his presentation as well as a link to the complete video-recorded briefing are available on our website.

Next Steps



Please continue to the next part of this course, where we'll review some models of the policy process that will help you understand how to improve evidence use.