

Organizational network learning: A theory and an application

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Abstract

This paper outlines a framework for understanding policy-making decisions based upon a combination of organizational learning and social network theories and then applies it to analyzing comparative public policy development responses to HIV/AIDS in the developing world.

First, the paper outlines a set of empirical expectations developed through a combination of network analysis and organizational learning theories. It describes how structural configurations of organizations influence the process by which these entities obtain, process, and transmit information; in particular, organizations (or groups of organizations) that resemble networks (as opposed to hierarchies or markets) will institutionally outperform and better adapt to environmental conditions. The paper argues that three aspects of networks — centralization, control, and communication — affect the mobility and cost of information, as well as the ability of actors to process that information. The paper then develops the theoretical underpinning for relating these network factors to a well-developed research program on organizational learning.

Second, using case studies of how Mexico and Botswana came to define, develop, and revise their HIV/AIDS policy regimes over the last two decades, the paper demonstrates that organizational network learning factors can be traced to the policy outcomes observed. In particular, the degree of network centralization appears particularly

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powerful as one explanandum of the relative degrees of success each country has had in addressing its HIV/AIDS epidemic.

Part I

A theory of organizational learning vis-à-vis HIV/AIDS

1 Introduction

The formation of HIV policy presents a state's government with an iterated process of decision-making. As the epidemic develops over time, government must address a constantly changing information environment. In general, policymakers will run into similar set of choices multiple times, but the information environment will be new in some sense each time (although the rate of that change will not necessarily be constant). That is to say, there will always be novel information on the indicators of HIV in the society, what the possible (or probable) results of policies are, or what the effectiveness of current "best practices" are. In the case of HIV, the set of actions that a state can take tend to remain more fixed.

A learning theory of state decision-making well suits this sort of decision process, where the information environment stays in flux and requires state adaptation to changing circumstances.

2 Organizational Learning and Policy Convergence

At their base, organizational learning theories are about the movement and management of information. Although there is disagreement on the nature of the process of learning, whether it is indicated by change in policy action, or the behavioral implications of an organizational learning process, most analysts do agree that instances of organizational learning start when the actors in question acquire new information about some phenomenon that has occurred and apply that information to a matter at hand.

Of course, this process may not be easily isolated from other causal mechanics at work. As Levy (1994, 312) cautions, "Our understanding of the role of learning in foreign policy and of policy change more generally will be best served if we abandon the attempt to construct an analytically distinct 'learning model' and focus instead on integrating

learning processes into more comprehensive theories of foreign policy. Such integration of learning processes into larger causal models indicates that although we can focus analysis upon those processes of policy change, we need to be sensitive to those places in space and time when structure, politics, and interests touch upon or mingle with the lessons being learned. Thus, although in the following my primary attention will be upon outlining the contours of a learning process with respect to HIV/AIDS, I do not mean to say that this process occurs in isolation from other influences upon policy analysis and change.

Learning theory offers a helpful framework for understanding state responses to communicable disease epidemics because organizational learning theory focuses on the information analytics of policy response. Epidemic response entails managing what is known about both the biological and the social processes associated with a disease. What is known about the various biological (virology, immunology, biochemistry) aspects of HIV influences the sort of social, economic, and political policies that states, IOs, and NGOs attempt to put into place.

One may expect that state HIV policy responses that come as a result of learning will display the following minimum pattern: the state must acquire information about relevant policy choices, it then evaluates the perceived success or failure of those choices and draws conclusions about the current policy, and it then carries out policy in light of those conclusions.

2.1 Types of information

The international politics of HIV operate depend upon three different types of information, with different degrees of available “completeness” or certainty:

1. **Scientific information:** This constitutes the biomedical and epidemiological knowledge about the characteristics and control of the virus, within individuals and populations. Information about HIV’s biology and virology, immunology techniques, and trials of preventive or treatment measures (like ABC programs or advances in PMTCT respectively) are all examples of this type of knowledge. Almost anything that has to do with the virus as biological organism fits in this category.
2. **Status and activity information:** This consists of what is known about a state’s HIV status (the type and intensity of epidemic) and what the state is doing to address its status. Via the major organs of HIV/AIDS policy, information as to what situations a state faces and what states have implemented in terms of

prevention and treatment is also widely available.

3. **Assessment information:** This information comes from the interaction of the two previous types of information—what can be done (scientific knowledge) with what is done (status/activity information). This is the aspect of HIV knowledge that faces the largest information uncertainty. As a result, it can be extremely hard to track the course of the disease with reference to a specific policy.¹ Since HIV prevalence (and incidence, where figures exist) serve as the most familiar and available measures of a state's policy "success", states and other actors may gauge one another. Although the HIV figures may provide a somewhat uncertain estimate of the true extent of HIV, they are the best measures extant and constitute one standard for measuring the "effectiveness" of a policy or policy regime.

Even as a disease—not to say a political challenge—HIV presents some unique difficulties for most countries. For many, it is the first plague of memory for the people of affected countries. Even in regions with endemic diseases like malaria, river blindness, or meningitis, HIV presents much greater challenges of health management than these regions have faced in the recent past. Prevention often cannot be achieved medically or environmentally, such as by vaccination or pest control.² At its root, it requires discussion and persuasion on socio-political issues and structures: sex practices, the roles of men and women, and the structure of the family (to name just three). As regards treatment, HIV drugs are, of course, not particularly cheap, even at specially negotiated pricing for the developing world. Even were universal ART access achievable or available, the drugs certainly cannot *cure* AIDS—only stave off its advance. And although diseases throughout history have often been characterized as due punishment for moral or ethical failures (Bourdelaïs 2003 (2006 trans.); Johnson 2006; Johnston 1995; Baldwin 1999), HIV/AIDS carries a particularly heavy stigma (Baldwin 2005; Shilts 1987).

Thus, because HIV is so costly to address, information about what does or does not work may be the most valuable resource available, even if it is of variable quality. Those concerned are looking to get the greatest output possible per scarce unit of input. The lessons of the past—whether one's own or those from others—provide a significant guide for states that are assessing policy choices. Drawing on one's own experience or that of other states reduces information costs and

¹This doesn't mean, of course, that analysts do not attempt to do so, simply that most are aware that policy analysis here may be as much art as science.

²At least until 2010, when the results of the CAPRISA microbicide study and other studies on prophylactic ART were presented at that year's International AIDS Conference, in Vienna, Austria.

thus costs overall.

Organizational learning approaches have been used extensively to explain policy preference and change, both in degree and kind, in a wide range of policy areas.³ Some (potential) policy changes are larger, more dramatic, more difficult, or more costly than others; these approaches have provided students of the state with leverage to determine which of competing explanations for state action best fit a particular situation or class of situations (Hall 1993).

2.2 Sources of information

Information used to evaluate a government's policy has two possible sources that prior research indicates make a difference in the information's salience to the info-receiving state. Organizations (including national or regional governments) may draw upon their own experience, or they may draw upon that of other entities. In the latter category, this includes governments, IOs, and (to a lesser extent in the case of HIV/AIDS) NGOs.

A number of organizational studies have indicated that "internal" information—information about the entity in question—is more salient than information about external actors (Huber 1991; Jervis 1976; Leng 1983; Huth and Russett 1984; Jentleson et al. 1992). States will thus prioritize information about their own experience above that they can mine from other states, but in the absence of information from their own experiences, theory and evidence indicate that "vicarious learning" (Huber's phrase) stands in for learning from one's self. Learning from one's self does not mean that only the government can collect and analyze information; as Hall (1993) points out, other organizations and groups within the state can conduct some of the information processing necessary for drawing lessons from the past. For example, during the re-orientation of economics policy in the Thatcher years from Keynesianism to monetarism, policy analysis organizations—that is, think-tanks—proved key in providing intellectual heft and analysis in favor of this paradigmatic shift (which Hall terms "third-order learning").

With respect to the problem of HIV, two conditions or factors seem most likely to affect a state's action to control the spread of the disease. First, the greater the level of HIV in the general population (or in some relevant, visible sub-population), the more likely it seems that the state will take *some* (any) action against (or apparently against) the

³A representative (but not exhaustive) sample would include the following studies of foreign-policy decision-making, state macroeconomic policy, and war-fighting strategy, among others: (Bennett 1999; Hall 1993; Hecló 1974; Johnston 1996; Knopf 2003; Lai and Reiter 2000; Lebovic 1995; Levitt and March 1988; Levy 1994; Reiter 1994, 1996).

disease. As the level of the disease increases, the negative economic and public health externalities increase and affect other sectors of the state and society, to the point that the disease cannot be ignored. Second, in a similar accumulation of negative externalities, as time progresses, even were the HIV level to remain constant (which is unlikely, given the S-curve nature of how most diseases progress through a population), the increased morbidity and mortality levels would act as a drag on economic and public health output.

(Even without direct evidence of the effect of HIV upon other states (not to mention what those states do in reaction), state bureaucracies could feasibly take the standard epidemiological models, the “SIR” model,⁴ to offer some future projection of the basic human (and thus the political, economic, and social) costs of HIV.)

We therefore expect to see two implications from the previous reasoning. First, as HIV levels increase, *ceteris paribus*, state responses should also increase. Second, as time passes, even where levels of the disease stay constant, the accumulated costs and losses should mount, and the state response should be greater to prevent the further mounting of costs.

Learning makes actors willing to undertake the same costly actions for less overall benefit. This accords with the definition of learning above *and* with our common sense understanding of the term. Given more information about the state of the world, actors adjust policy, demonstrating a willingness to trade benefits for surety.

2.3 Steps in the learning process

From the ways in which information is used, how it is acquired, and the roles of beliefs and uncertainty, we can outline an organizational learning process with several steps.

1. **Information acquisition:** States must first obtain information upon which to act. The combination of their beliefs about what sorts of information might be relevant, lacunae or other deficiencies in what is known about various policies, and the costs of gathering information determine what information they will try to procure. Then, for any particular policy option, a judgment must be made about how useful the acquired knowledge is probable to be. Information that comes from sources that have proven more reliable in the past should rank more highly than

⁴*Susceptible, Infected, Recovered*. Knowing something of the basic characteristics of a disease, we can make a basic prediction about what it will do to some population of susceptible individuals, offering a likelihood as to how many of those will become infected. From the numbers of the infected, we can then estimate how many will become well again. See Anderson and May (1991).

that from less reliable sources. Actors rank the potential utility of information predicated upon previous beliefs.

2. **Assessment and analysis:** States then analyze the collected information. Within the state's structure, individuals go about the process of evaluating the information in terms of current state policy. What does the information have to do with current policy? How can it be used to evaluate that policy? Other individuals at different points in the bureaucracy integrate the information from various analysts and pass those judgments up the organizational structure; this process iterates one or more times. When these judgments are applied to current state policy, they permit policy analysts to decide to what extent the *degree* or *direction* of previous policy choices needs to be changed.
3. **Persuasion:** Each level of bureaucratic analyst comes to some conclusion about the level of changes (or not) necessary in the current policy programs. These analysts must then persuade superiors and colleagues to adopt their viewpoint in order to bring that change about. Should they fail to do so, the process of change (and resultant behavior hoped for) will stop (unless the change process is concurrently working on some alternative pathway). Where the process of persuasion is successful, it will be iterated up the bureaucratic hierarchy until it reaches those with the power to make and implement policy. Smaller recommended policy changes (what Hall (1993) refers to as first- or second-order change; that is, changes in the means or "settings" of policy tools) need not persuade as many persons as larger ones. Larger changes require individuals with more command authority to implement alterations of course. As a side effect, they also require more "buy-in" from affected bureaucratic units (to prevent the desired changes from being lost in bureaucratic inertia), and this also requires a process of persuasion.
4. **Behavioral change:** Finally, because learning (whether in the individual or organizational sense) only demonstrates its fruition in a changed behavior, the state takes the steps necessary to adjust the ends, means, or intensity of policy. Because organizational learning requires the aggregation of a number of individuals changing ideas and consequent intentions for policy and then persuading others to take those up, the organizational process of learning can only be completed when we observe a difference in behavior.

The steps that I have laid out here are an elaboration upon that which Levy (1994) describes as having two steps: first, the observation and interpretation of experience lead to changes in individual beliefs,

and then belief change influence subsequent behavior. This changed behavior need not always be internalized with changes in formal mechanisms like standard operating procedures, but such formal mechanical alterations will encode the lessons gained over a longer term.

This does not mean that the observation of a number of individuals changing their policy intentions and working to persuade the entire organization to adopt those ideas and beliefs is inconsequential; it does indicate that the process of *organizational* learning was incomplete—at least under most conventional definitions of that process.⁵

It is this aspect of the traditional understanding or definition of organizational learning that I push on in this paper. Drawing on Huber (1991), I propose that the process of organizational learning may be evidenced not only in altered behavior, but in the *expansion of the organization's perceived options for action*. That is, in some cases, an organization may not be able to change its action, even if it wants to, perhaps because the course of action that it would choose is blocked by its political masters. (In HIV/AIDS policy, this reportedly happens often, as public health functionaries would often like to propose or implement policies like condom distribution, IDU harm reduction, and so forth, but these policies are often unacceptable to politicians. See Pisani (2008) for a variety of examples.) Or perhaps through the process of analysis, the organization considers a new policy option and ultimately makes the intentional decision to continue in its initial policy.

In either of these situations, if the actor under analysis had been an individual and they had considered a new action option or tried to take a new course of action but been prevented from doing so by external constraints, we would be inclined to say that the actor had learned. In the case of an organization, we should not constrain our definition of organizational learning to behavioral outcomes. By focusing on the expansion of options for action, we will not miss those cases where political pendulums or analytic choice lead to behavioral constancy.

⁵Such a circumstance may still be interesting and may tell us something about the process of how organizations alter course in response to new information, and it alerts us to potential bottlenecks and gates in the process.

3 Social network effects upon organizational learning

According to neo-classical economic theory, under a market, the competition mechanism provides the information institution for involved actors. More specifically, because the actors in a market are engaged in competition with one another for the potential rewards the market has been set up to distribute, actors have a sufficient reason to seek out information on the states and activities of similar actors, as that information will help the actor to adapt to changing circumstances and gain advantage over others competing for the same rewards. Under perfect competition conditions (the archetypal example would be a stock market) every shareholder has access to the same information. Based upon that data, shareholders can decide whether to buy, hold, or sell shares of a company. (Supplemental information from various sources, like stock analysts and ratings agencies, can assist in those decisions, but neo-classical rational expectations theory contends that the supplemental information will be encapsulated in the stock price. See, for example. Cassidy (2009).)

In the development of a public good like health policy and programs, however, competition is often not available as a sorting mechanism, because there is little to no direct profit incentive or specialized information mechanism (like stock price) to direct the seeking out of efficiency and advantage over one's peers. In such a case, provision of information about the operation, value, and utility of the courses of action undertaken by various actors needs to be supplied through another mechanism if the utility maximization and efficiency is a goal of the policy regime. Here is where the government can step in to offer the structure lacking in the absence of the market and price levels.

The government's options are not limited to imposing a structure on top of the non-marketized anarchy. The state also has the option to set itself up not as a command unit, that is as a hierarchical system of control. It may choose instead to offer some mechanism by which actors can transact information about the state of policy matters but still be largely left to make their own decisions and take their own actions. Thus, where a hierarchy structure links actors together, as well as allowing some to exercise command and control; and a market structure, in precisely the opposite fashion, treats actors as autonomous with no institutional control one to another; a network structure links actors together, with a degree of control fuzzily⁶ intermediate between those observed in the other two forms.

Several analysts argue that the more hierarchical ("vertical" in

⁶In the sense of "fuzziness" used by Ragin (2000).

some parlance) a firm or other actor is, it is more likely to perform in a middling fashion, compared to other forms, in terms of information movement and processing. DeCanio and Watkins (1998), for example, argue that a modicum of structure—as opposed to the structural extremes of hierarchy or anarchy—help to increase the information processing ability of a firm, thus increasing its effectiveness. Modeling four different forms of the firm (ranging from a hierarchical structure to a network where all nodes were connected to other nodes to a loose network where each node had random connections to a few other nodes), they found that connection of agents to one another best facilitates the decision-making process. In particular, the randomly connected firm—where each node is connected to some set number of other nodes but not all of them and which looks rather like a diagram of a computer network or the Internet—performs the best over the broadest range of information processing demands; in firms with high information capacities, the completely connected model (every node connected to each other) performs the best.

The limited processing capability of individuals means that organizations that are able to structure intelligently this internal communications and limit the channels through which their members receive information will have a competitive advantage... While it seems clear that more information-processing capacity is better than less, it is also clear that more raw information can be a barrier to productive change when processing capacity is limited. Also, the question of whether the necessity of structure implies the necessity of hierarchy is open (290).

Analogizing this to a government and its HIV/AIDS response regime, we would expect that two factors should affect the decision timing. First, those governments or government agencies with higher information processing capabilities should make a policy decisions more quickly and (likely) revisit or reevaluate them more often. Those organizations with flatter hierarchy or whose structure is more dependent upon agent interconnection should behave similarly.

Scott (2004, 11-12) points out that even a hierarchical organization can seek to improve its position upon the recognition that a particular task lies at the margin of its organizational purview. Rather than seeking command and control that is likely to be “dysfunctional,” the better functioning organization is more likely to contract out the decisions and tasks necessary. This will actually provide it more control than “ownership” would, as contracts provide leverage over the decision and implementation process that direct control does not. In an organization charged with policy in an area away from its core competencies, we should expect that contracting will provide better

returns to investment and success (by whatever metric that is measured) than either direct control or the establishment of new agents within the organization would offer. The state seeking to improve its HIV/AIDS policy where organizational learning is operating should be more willing, then, to operate with partners where and when those partners have particular expertise or experience exceeding the state's own in that area. The learning organization adapts its structure to the warrant of the circumstances.

Clemens and Cook (1999), in reviewing institutional continuity, notes that an institution's primary feature is to persist in the face of stochastic change. (Organizations, as more formalized institutions—at least as we generally understand them in international relations and comparative politics—should exhibit similar tendencies in even stronger fashion. In particular, institutions and organizations should persist and even exhibit inertia when institutional statements (“ ‘a shared linguistic constraint or opportunity that prescribes, permits, or advises actions or outcomes for actors’ ”) are non-discretionary and substantive.

In terms of HIV policy response, I anticipate that policy response regimes will take longer, be less substantively different, and more resistant to changing when the subject purviews of agent organizations within the state are well-defined and rigid.

Garicano (2000); Garicano and Hubbard (2005); Garicano and Rossi-Hansberg (2006) engage in more extensive formal analysis, positing game theoretic models to examine the relationship among firm structure and decision-process both when knowledge acquisition or knowledge transmission become cheaper and when problems become more complex. In general, where worker knowledge does not overlap, the following holds: as communication (knowledge transmission) cheapens, the organization most optimally becomes “flatter” but individual members have less control in their day-to-day tasks; where knowledge acquisition cheapens, the organization again becomes flatter, but organization members gain more control of their assigned tasks (they are more “empowered,” as he puts it). Thus, “when matching problems with experts is very costly, the optimal organization of productive knowledge has the features of a hierarchy” (Garicano 2000, 897). In essence, there is not a direct or indirect zero-sum relationship between structural form and agent control; the direction of the relationship differs depending upon a third factor, the cost of *information acquisition*.

It is reasonable to infer that organizational structure, tells us something about the costs of intra-organizational decision processes. Where the structure is flatter, we'd expect that the costs of information transmission are lesser (compared to an organization that is more hierarchical).

Looking at the cost of information acquisition requires a further examination of worker/agent autonomy. Garicano indicates that cheaper transmission costs would increase the amount of time required to act, because workers would need to pass problems up the problem-solving chain more, while cheaper acquisition costs allows each worker more opportunity to solve problems on his own. In the end, then, we ideally want to examine three characteristics of policy organizations or policy networks:⁷ organizational structure, sub-organizational agent control or autonomy, and the time required to act on a plan. Each of these types of data, where available, tells us something about the cost of information, which in turn affects organizational learning processes.

Thus, states and organizations with greater capacity to govern or oversee societal action should have more hierarchical structure. Resultingly, in cases where a response regime changes over time, such organizations should have larger or more vigorous responses. (On average, it seems likely that those organizations that *can* do more *will* do more.)

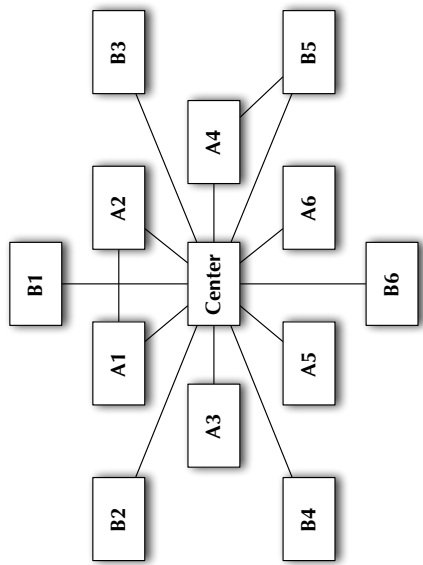
Garicano's analysis seems to conflict with that of DeCanio and Watkins, in terms of the relationship of timing to structure. At the very least, Garicano's hierarchy is an extreme-case contravention of DeCanio and Watkins' contention that structure is necessary for an organization but too much structure is detrimental. While DeCanio and Watkins consider "information processing *ability*", Garicano breaks that concept down into information transmission and acquisition *costs* (emphases mine).

Given the preceding, I expect that the structure of the state organization and/or the arrangement of the various actors (in and outside of the state) will affect the speed and type of response policy implemented. In both the work of Williamson (1991) and Podolny and Page (1998a), networks are understood to be expansive enough to encompass hierarchy/firm and market forms, but more sociological analysts (like Podolny and Page (1998a)) generally separate the three from one another, contending that they represent three ontologically distinct realities for organizations. In Figure 1, I have provided visual representations for each of the three forms.⁸

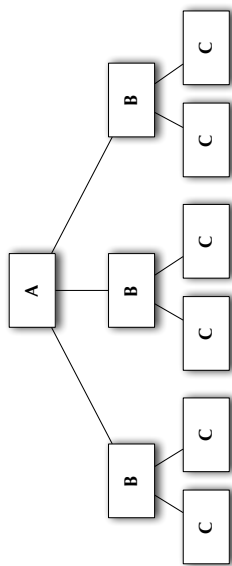
(Networks, of course, can be arranged more to the hierarchical or anarchical pure forms. As against the hierarchical form, units in a network cannot be directly controlled by others as easily as in a hierarchy. There may be some nodes in a network that have more importance or influence than others, but even less influential units

⁷For, as we will see, "network" describes these inter-connected but non-hierarchical forms.

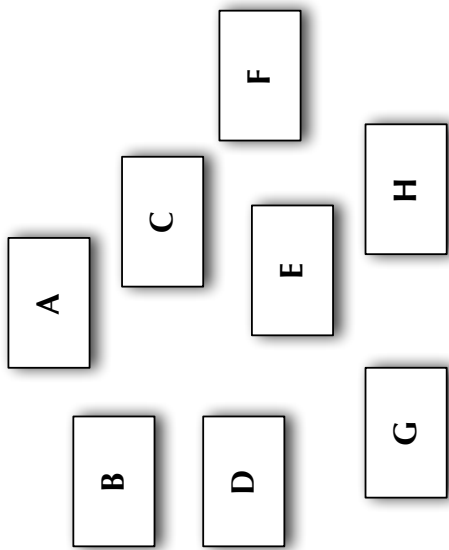
⁸Two different forms of network, to be discussed below, are shown.



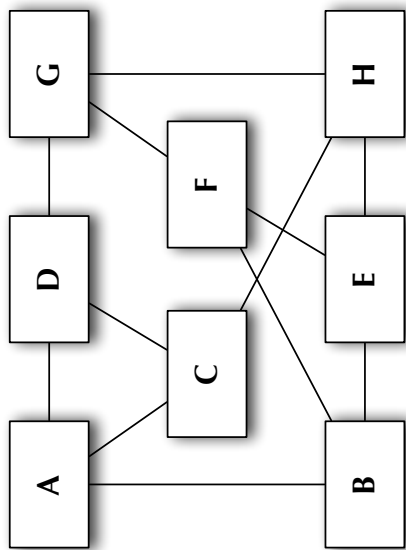
(b) Centralized Network



(a) Hierarchy



(d) Market



(c) Dispersed Network

Figure 1: Different Organizational forms

can evade some control of those deemed more important, by taking alternate paths through the network to obtain decisions or to transmit information.)

In contrast to the market or anarchical form, network units have connections to one another, and they use these connections to pass information back and forth. This increases the information available in the system at any one time. In anarchical systems, each actor or unit can observe the actions taken by others in the past but does not know what others are planning to do or what current info they possess. In the network, information on plans or current knowledge can be passed around, providing an additional source beyond the observation of past actions. Empirical tests (Hammond 1993; Hammond et al. 2007; Whitford 2002) bear these implications out.

I define centrality as the degree to which a node is connected to other nodes in the network when compared to those other nodes. Operationally, one way we might assess centrality is to take the total number of connections a node has, divide by the total possible connections,⁹ and compare that number to the same ratio for another node. Greater differences indicate greater centrality.

In Figure 1b, the node labeled “Center” represents an extreme case, in that it is connected to every other node in the network and thus passes information back and forth between it and the A and B nodes.¹⁰ The higher proportion of ties to a node, the more central it is to the network. (The centrality of one node does not obviate the possibility of communication among the other units; thus, for example, the ties between nodes A1 and A2 or A4 and B5 in that figure. In the purest form, all inter-nodal connections must pass through the central node.) In Figure 1c, there is not a central node; each node is connected to three others.

Information travels differently in a network as its degree of centralization increases. In a fully centralized network, to move information between any two nodes (excluding the central one), the information must pass through the central unit in the network, providing that node with access to the information. As centralization decreases, direct connections between two nodes will obviate the necessity of needing to pass information through any particular unit. In a network like the one portrayed in Figure 1c, there are a variety of pathways from one node to another. Some of these pathways may require a greater number of nodes and ties to be involved (A to H can proceed via C or via

⁹Which is generally $(n - 1)! + 1$.

¹⁰The difference between A and B nodes is in their “distance” from the center node; that is, the degree of affinity, constancy of communication, and trust between the center and the affected node. The idea of trust is a common one in the network analysis literature (Podolny and Page 1998b, 60), and “trust” is often identified as a distinctive characteristic of this form of governance.

B and E), but if the costs of transmitting information are sufficiently low, the number of intermediate nodes between destinations should not matter.

Therefore, in the case of policy formation, since there is a need not only to coordinate policy information but also to direct policy crafting and implementation, I expect that a more centralized network form will outperform less centralized forms.

4 Summary of implications

The theory I have developed in this chapter suggests two types of behavior that we may observe. In the case of HIV/AIDS, there are rarely events of the type outlined in Reiter (1994, 1996), where society and associated government face a stark choice between one path or another (in his case, balance or bandwagon a powerful neighbor) and where the crucial event is definitionally limitable (for example, as in most definitions of war). Responding to HIV, as opposed to other disease or sorts of problems like it, occurs over a longer period of time, and the sorts of adjustments that occur have a large menu of response options and a lack of evaluative events with definable endpoints. In this case, then, radical alterations or switches in behavior seem less likely (although not impossible).¹¹

In a quantitative sense, we expect that while we cannot directly observe learning itself, there should be patterns that we can observe across the system of states consistent with a learning-based explanation. Qualitatively, we should be able to more directly observe an internal process of learning, as individuals inside the state undertake processes of acquisition, evaluation, and persuasion to bring about state behavioral changes. The following summarizes the expectations regarding the patterns I expect to observe in the data that follows.

4.1 Learning adaptations

As states learn from one another, examining the histories and policies of other states facing similar problem situations, they will attempt to adopt those policy programs. Although each country might simply mimic the response regime of another country, the more likely course of action is that the first country will use the second's response as a

¹¹Radically transforming events do occasionally occur. In 1996, with the advent of combination reverse-transcriptase and protease inhibitor therapy (the "triple cocktail"), there was suddenly and for the first time a treatment option with radical possibility for managing and preventing the advance of the disease in HIV+ persons. This made it scientifically possible for states to change policy mixes and intensities with the expectation of a very large shift in the advance of AIDS and consequent deaths.

template for its own regime. Because of this adaptation and because of differing given conditions within each state, we should expect to see an increase in the variation among country policies. This occurs because varied local (country) circumstances and updated information on the success or lack of success of the chosen policies (domestically and abroad) interact, and countries will make adjustments designed to improve their output and, consequently, their performance.

If, for example, all countries interested in implementing anti-HIV policies prospected the world for the current best practices, they would find a relatively small basket of policies that experts would suggest implementing. These countries that choose to put a policy in place (a subset of the countries that could or should implement HIV/AIDS policy regimes) likely would establish relatively similar programs at relatively similar levels of output. Over time, each country will have access to some sort of performance data on its own and other societies' efforts and outputs. Policy adjustments will be made,¹² and even as countries try to learn from and emulate the successes of others, the total variation over time increases.

4.2 Institutional effects upon learning processes

Because states are not identical, we expect that they will not adopt identical policy mixes or intensities. My explanation argues that, among other influences, information management costs (that is, the costs to acquire, analyze, and transmit information) and state organizational structure form essential components of a learning process; where these differ among states, policy output should also differ. Differences among state-adopted policy mixes against HIV/AIDS can be explained, in part, by the effects that these factors have upon the people drawing conclusions and seeking to persuade others to adopt their conclusions, as this process becomes more or less costly to the organization. More specifically, I expect to see some version of the following:

1. Policy networks should create more policy options than hierarchical or market-like organizational form factors. We expect to see greater output in these cases.
2. Centralized networks (as opposed to de-centralized networks) will optimize the balance between communication and control

¹²Countries that reap a harvest of success will almost certainly maintain or increase their program effort. Those that obtain less optimal results may increase or decrease their efforts; increases could occur because the under-success is seen as due to under-provision of resources, while decreases or shifts in output allocation could occur if the program itself is seen as flawed, especially if a more viable alternative seems to present itself.

required to generate policy ideas and then make sure they are followed through.

3. Where information costs are higher, there will be less overall policy output, as resources are diverted from implementation action to information management.

5 Theory Conclusion

One of the more knotty puzzles revolves around explaining a certain sub-optimality of policy response: why is there a fairly wide degree of variation on HIV response regimes, even after controlling for “obvious” answers like national wealth or relative health care resources? In an attempt to begin assessing this puzzle, I have argued that we need to understand the policy formation process, and to this end, I have offered a theory of organizational networked learning. This theory provides hypothesized mechanisms that describe how information flows and movements lead to patterns of convergence and divergence among state HIV policies.

I now turn to a structured qualitative analysis for further insight into the process of policy change.

As noted, there are two aspects of a country’s response to HIV/AIDS to focus on. First, we examine what policymakers do with new information relevant to the policies at hand that (in a rational, unitary actor, at least) would lead to evaluation and revision. Relevant information can be ignored, acknowledged but discounted-and-not-acted-upon, or acknowledged and used to shape policy revision. In the case of HIV/AIDS, there is a constant (although not consistent)¹³ flow of information. Policymakers may draw many inferences from this information, including the “wrong” ones, but when we observe policy change in direct reaction to additional or “new” information or we observe the expansion of policy alternatives, then we say that the organization or institution has learned.

Second, we are interested in the effects that organizational structure has upon learning and decision-making. As noted previously, we can loosely group organizational structures into three categories: hierarchies, networks, and self-organized anarchy (markets). These differ in the degree of control that actors within the system have upon one another. In a hierarchy, there is a clear denotation of subordinates, equals, and superiors. In a market (anarchy), by contrast, all actors

¹³That is, there is always new information about the virology of HIV, the effectiveness (or not) of some intervention, or the status of some country, population, or other group. But the incoming information is not always collected in the same fashion or about the same subjects as previous studies or observations.

are ontologically equal and formally independent of one another. In a network, the actors are not independent of one another, in that they are tied to fellow actors to assist in the completion of some or all of their functional tasks. But in a network, there is often (but not always) little to no control that the actors have over one another. In a network, we expect that the combination of connections among units and the lack of strict control of each over the other will facilitate a maximum of information, and reduce the information boundedness constraint on rational decision-making.

As I proceed through the cases that follow—Mexico and Botswana—the focus of the narrative will be upon examining *how* decision-makers acquire new information about the HIV/AIDS epidemic and responses to it and upon *what* the decision-makers do with that information. I will also attempt to ascertain what effects the type of relations among organizational components have upon evaluation and decision.

Part II

Mexico

6 Case 1: Introduction

In this section, I consider the situation of Mexico, from the rise of its epidemic in the early to mid-1980s to the middle of the current decade. I primarily employ process-tracing analysis in both country cases examined. This section is not intended to be a full history of the epidemic in Mexico, nor can it be. As a result, however, I focus my analysis upon the actions of political actors (with an emphasis on those in the governmental bureaucracy), tracing causes and consequences of policy decisions, with particular emphasis on critical or significant events and decisions. Although NGOs/CSOs¹⁴ played important roles in the furtherance of AIDS policy programs, especially with regard to the (more successful) treatment regimes, I only address them as they interact with the government's HIV apparatus. As regards IOs¹⁵ or state-to-state topical intercourse, on the other hand, I pay somewhat more attention to these, both because they are subjects of explanation in my theory, as well as phenomena of interest in International Relations more generally.

With respect to the case of Botswana, the Mexican case makes

¹⁴Non-governmental organizations, civil society organizations

¹⁵International organizations

sense primarily because it is outside the region of sub-Saharan Africa. HIV is so often thought to be equivalent to “Africa” (never mind what a term that covers 40-odd countries with vastly different resources bases, economic and political systems, and ecological geographies) that we forget that one-third of the world’s HIV/AIDS cases are found *outside* sub-Saharan Africa. The HIV epidemic in sub-Saharan Africa may be sufficiently different from those that are found in other parts of the world (Pisani 2008, Ch. 3) that an analysis restricted to the region may have lesser explanatory power and portability than one that examines other parts of the world.

On some level, the “shadow” comparison for Mexico will be the United States. Although this may seem counterintuitive, it makes sense for several reasons (in addition to allowing for a sort of third case). By all rights, the U.S. should better manage its response to HIV/AIDS as compared to Mexico. The US is richer, has a greater scientific and technological apparatus, is more democratic, has more advanced modes of communication, and generally outperforms Mexico on those factors thought in the international HIV/AIDS “industry” to make the greatest difference in anti-HIV performance and outcomes. This is not what occurs. Depending upon the area of evaluation, Mexico and the United States either perform about equally well in their domestic responses to the epidemic or Mexico outperforms the United States. This is unexpected and thus bears explaining.

Even the demographic shapes of the epidemic itself in the two countries are more similar to each other than to other countries or regions in the Western Hemisphere. Comparison of the mode of transmission for two recent years is offered in Table 1. Generally half or more of all HIV+ people in each country fall into the MSM¹⁶ category, with the high-risk heterosexual epidemics as the second highest component of the overall total in each.

Table 1: Mode of HIV transmission, USA and Mexico.

Category	U.S. ('07)	Mexico ('07)	U.S. ('02)	Mexico ('02)
MSM	53%	40%	50 %	54%
Heterosexual	31%	59%	13%	39%
IDU	12%	3%	34%	1%
Other	4%	1%	3%	6%

Data taken from: USA — CDC; Mexico — CENSIDA

There is some debate as to the current state of the Mexican AIDS

¹⁶Men who have Sex with Men, Males who have Sex with Males

epidemic. The official figure for population prevalence stands at 0.3%.

If you believe the official figure — and many experts don't — only 0.3% of the adults in Mexico are infected with HIV. That's half the U.S. prevalence. "It's very difficult to say what's happening in Mexico," says [Luis] Soto-Ramírez, who runs an HIV/AIDS lab and clinic at the National Institute of Nutrition [and Medical Sciences] in Mexico City. "The numbers say very different things from what I think." From his vantage point, the prevalence must be higher — and increasing. "I'm seeing many more women and many more rural cases," he says (Cohen 2006a, 478).

Even so, Mexico is still quite comparable to the U.S. in the contours of the epidemic. And most of the criticisms that can be leveled at Mexico's assessment of population and sub-population statistics may be similarly applied to the United States. The methods and models are largely the same. This is not to say that each country undercounts its HIV+ population by the same factor, only that there are likely similar problems present in each disease control and statistical system. Figures for the current state of the Mexican epidemic may be found in Table 2.

Table 2: 2008 Statistics on HIV/AIDS in Mexico.

Registered New HIV Diagnoses	2,415
Total Registered HIV Diagnoses	26,200
Estimated total HIV Infections	200,000
New registered cases of AIDS	3,574
Total Reported Cases of AIDS (1983–)	124,505
AIDS Deaths (2007)	5,093

Source: CENSIDA

6.1 Sources

Data for this case were collected from a variety of sources. I conducted in-person and telephone interviews with approximately 15 senior members of the Mexican Health Secretariat, NGO and CSO representatives, and health policy researchers and analysts, in Mexico City during August 2008. I collected primary documents, official government publications, publicity and educational materials, and academic articles relating to the progress of Mexican AIDS policy over the past 25 years. Furthermore, I drew on published materials

describing and quoting interview research on the development of HIV policy, as a supplement to my own interviews. The great majority of these materials are in Spanish and have not been translated or previously available in English, and thus they have been largely unused in American research on HIV/AIDS and policy, with respect to Mexico or otherwise.

7 The Mexican HIV/AIDS epidemic and governmental responses

Mexico's experience with the HIV/AIDS epidemic began in 1983. In that year, just two years after the first cases of what would come to be called AIDS were detected in 5 men in Los Angeles, Mexican health authorities detected their first cases of the disease. At that point in time, the underlying viral cause of AIDS was still unknown, and the disease was diagnosed by the complex of opportunistic diseases that presented in a patient. By 1985, the number of cases of AIDS had grown sufficiently large that Mexican health authorities began to track the epidemic on a national level. (Magis Rodríguez and Parrini Roses 2003)

7.1 *Ad Hoc* Responses

The first and initially most affected group were MSMs. In Mexico, the disease took hold in the upper and middle classes, transmitted by MSMs who studied or worked in the United States or Europe and acquired the virus there. At first, then, the focus of monitoring and (slight) outreach was on the homosexual/gay/MSM population. In 1985, when national tracking started, the number of diagnosed AIDS cases was still low enough (367 diagnosed cases)(CENSIDA 2000–2008) that any official efforts were *ad hoc* and basic. Mostly, public or private doctors treated AIDS cases in their practices, epidemiologists tracked the expansion of the disease, and — in the very underground gay world of mid-'80s Mexico — both sets of medical professionals provided basic information about increasing the safety of sexual activities. Thus far, the Mexican epidemic virtually mirrored that of the U.S., as did the official response.

7.2 The blood epidemic

In 1986, however, the Mexican epidemic took a turn not seen in the U.S.: a contaminated blood supply, infecting both donors and recipients. Although the AIDS epidemic in the US did infect many

people via contaminated blood products received, this subset was never a very substantial proportion of the total; additionally, blood *donors* in the U.S. never received HIV as a result of donation alone. Mexico, however, underwent a major series of scandals and difficulties regarding its blood supply, and the focus of public attention and official efforts on AIDS quickly shifted to cleaning up the blood supply, most critically through the prohibition of commercialized blood products (Magis Rodríguez and Parrini Roses 2003). In 1985, the first year that a test for HIV was available,¹⁷ the first clusters of cases that could not be traced back to MSMs began to appear. At this time, significant numbers of women and, to a somewhat lesser extent, children tested positive for HIV (Hernández Tepichín 2008).

“With the exception of patients with hemophilia, transfusion-transmitted HIV in developing countries primarily affects women—specifically women who receive blood for obstetric reasons” (del Rio and Sepúlveda 2002). Once these women have received infected blood, they can then pass the virus onto their children *in vitro* or via breast milk. Thus, approximately 70 percent of the women who were infected in Mexico between approximately 1981 and 1987 came from blood transfusion infections (Hernández Tepichín 2008). (The balance of HIV+ women were commercial sex workers and people involved in high-risk heterosexual relationships.)

But how was transfusion-related transmission so pernicious as to galvanize public and official reaction? It was at this time that the Mexican government really began to step up its response to the outbreak of AIDS, moving from *ad hoc* responses to more coordinated official policies. In part, the sheer magnitude of the blood epidemic drove the official response: “In only 4 years (1984–1988) blood and blood products transfusion associated AIDS in Mexico *went from being unheard of to comprising over 10 percent of all cases*” (del Rio and Sepúlveda 2002, 1446, emphasis added).

The essential problem of this blood-products epidemic lay in the means by which the Mexican blood industry¹⁸ went about its business.

¹⁷Until this point, one only knew that one had AIDS (and consequently HIV) by the presence of certain opportunistic co-infections, such as *Pneumocystis carinii* pneumonia or Kaposi’s sarcoma. The tests available in 1985 allowed for the testing of antibodies to HIV, allowing diagnosis of infection even before the signs of AIDS had manifested.

¹⁸Some readers may not realize that until HIV/AIDS hit in most countries of the world, the donation, transport, and transfusion system for blood and blood products was a largely commercial affair. Although supervised by governments, it existed in large part as a for-profit enterprise. As we shall see, this brought it into direct conflict with the need to provide safe and “clean” products. “In many countries, infection of the blood supply is chiefly an economic phenomenon. For example, prior to 1987, selling one’s blood or plasma was such an attractive source of income. . . that commercial blood and plasma donors. . . formed a significant percentage of total blood supplies” (del Rio and Sepúlveda

In the 1980s, Mexico had no centrally coordinated system of blood “procurement”; neither did the U.S. In both cases, this facilitated the spread of the virus; although some regulatory structures did exist, there were multiple blood and plasma collection and distribution centers, many operating on a for-profit basis, which could and did lead to conflicts between the safety of the blood supply and profit maximization. By roughly 1986, epidemiology indicated that not only blood product recipients were in danger, but blood donors were also at risk. Subsequent evidence indicated that blood and plasma centers re-used their collection equipment (like plasmapheresis supplies, needles and syringes, which allowed the injection of small amounts of infected plasma or blood) and spread HIV “to previously healthy donors” (del Rio and Sepúlveda 2002, 1446, 1447)(Sepúlveda-Amor et al. 1995).

It was at this time that the Mexican government established its first national-level coordinated response to the epidemic.

7.3 First response phase: CONASIDA I

In 1986, Mexico established the Comité Nacional para la Prevención y Control del VIH/SIDA (CONASIDA) [the National Council for the Prevention and Control of HIV/AIDS] in 1988. According to Magis Rodríguez and Parrini Roses (2003), CONASIDA was founded “as an entity decentralized from the Secretariat of Health and with the fundamental objective of ‘promoting, supporting, and coordinating the actions of the public, social, and private sectors to combat the AIDS epidemic, as well as promoting measures to further that purpose.’”¹⁹ At the same time, Mexico also received international financial support to allow for the exchange and analysis of information from a variety of sources and disciplinary perspectives, primarily under the auspices of the Centro Regional de Intercambio, Documentación e Información sobre SIDA (CRIDIS)²⁰ (funded by the Pan-American Health Organization).²¹

These initiatives indicate that Mexico started down the pathway

2002).

¹⁹Unless otherwise noted, all translated quotations in this chapter are my own translation.

²⁰Regional Center for Exchange, Documentation, and Information about AIDS.

²¹“CONASIDA” actually went through two phases of existence, in response to the changing circumstances of the AIDS epidemic and the constitution of Mexican politics in the late 1980s. At first, in 1986, CONASIDA was established as a simple committee, for the exchange of information among experts from the Department of Epidemiology and from medical doctors and researchers with experience in AIDS: it had “. . . the objective of evaluating the national situation concerning AIDS and HIV infection, as well as establishing criteria for the diagnosis, treatment, prevention, and control of the epidemic, and also to coordinate the implementation and evaluation of norms, rules, and appropriate control activities” (Magis Rodríguez 2000, n.p.).

that I have argued in Part I are critical components of a networked learning process. CONASIDA was originally designed to serve as the hub of a network of entities engaged in the fight against HIV/AIDS—it did not generally implement programs but rather provided a coordination mechanism for other entities and their programs.

Mexico's initial effort at official HIV/AIDS policy development is precisely such an attempt at marketizing or networking a non-market of independent actors. By 1988, although HIV/AIDS was primarily still seen as a public health matter (as it was in the USA and most if not all of the rest of the affected world), Mexican HIV policy had developed across conventional boundaries within the field of public health. AIDS required attention to medical product sanitation (ensuring "clean" blood), outreach to marginalized and criminalized groups (MSMs and sex workers), advanced medical care for the sick and dying (and although this was almost always palliative care for opportunistic infections, many of those infections were so weird as to require special resources or knowledge), and special medical and media work with cross-border migrants, who were at particularly greater risk.

Compared to the speed of responses elsewhere in the Americas, the Mexican response was particularly rapid; by late 1987, Mexico's highest health official, Health Secretary Guillermo Soberón, characterized AIDS as a "problem of the highest national priority" (Soberón 1988, 505). In 1987, Mexico was a one-party state under the PRI, and the messages of state ministers were strictly controlled by the party and government. Soberón thus could not have made such a statement without the support of the president and administration. This support, in particular, was attributed by many involved in the policy process in those years to the fact that Soberón was both a political decision-maker and a researcher, and he could thus translate his clinical, scientific knowledge into the type of arguments that would persuade fellow politicians (Magis Rodríguez 2000). Such support contrasts markedly with the reaction of the Reagan administration (Shilts 1987).

More specifically, in that particular period, we see a process of organizational learning at work to change the policy of the state. In interview and historical research, Magis Rodríguez (2000) documented the pathway by which policy change was effected. As one informant put it, the director-general of epidemiology, Jaime Sepúlveda, first became convinced, owing to his epidemiological training and observation of the initial rise of the epidemic, and he worked to convince the Health Minister (Soberón). Another informant indicated that this process was certainly furthered by Soberón's own research background, for lacking such a background he would have been just another politician with whom the heads of the various departments of the Health

Ministry would have had to lobby (and probably unsuccessfully).

“I believe that if Soberón would not have gone to that meeting (referring to [a] meeting of [various national] health ministers on AIDS in London, 1986) or would have been [just] a politician that had been put there [—] nothing in the Ministry of Health[,] no matter how much the director general of Epidemiology or of IMSS [the state medical system for salaried workers] or of Nutrition [one of the primary biomedical research institute] was saying, hey, something has to be done, these people would not have had sufficient support to achieve a change” (interview quotation from Magis Rodríguez 2000, n.p.).

Within Mexico, information existed and entered the policy system from a variety of conduits. The monitoring activities of several components of the health policy structure—the state insurance scheme, the epidemiological monitoring and investigation service, and the nutrition department (which fulfills a variety of medical and clinical research functions, not exclusively confined to a narrow definition of nutrition)—all provided information about the increase of AIDS in Mexico.

International institutional mechanisms also contributed to the total reservoir of information, by both contextualizing the Mexican epidemic alongside others and sharing strategies for addressing it. (The collective lessons and knowledge promulgated across countries in the London ministers’ meeting heightened and highlighted both the scale of the challenge but also the sense that something could be done with respect to the problem of AIDS.) As fortune would have it, a key gatekeeping decision-maker (Soberón) integrated the roles of both researcher and politician, allowing persuasion from below on scientific and technical grounds, while permitting him to persuade above with politically relevant presentation.

One of the first policy decisions to come out of this arrangement was the May 1986 requirement that all blood and plasma centers must test donor blood for HIV. This policy change came about in the attempt to gain some state of information on the extent of the epidemic. Until this point, based upon what health officials knew about the profile of the typical paid donor (an un(der)employed young man from a rural area who had migrated to the shanty towns of the major urbanizations and had no previous risk factors for HIV), they suspected that compensated donation posed a special risk. The previous year, a voluntary testing policy — in essence, a recommendation with no enforcement provision — had been put in place to little practical effect. Once the new testing policy came into being, the specific danger of

paid donors came into clear focus: prevalence among those in the paid group was more than 10 times as high as among unpaid donors.

In 1987, because of the research and policy persuasion work done in CONASIDA I, a new blood policy was instituted: the commercial blood industry was shut down entirely, and Mexico moved to an entirely voluntary blood donation system, with blood screened by a national, state-approved network of laboratories (del Rio and Sepúlveda 2002). By the most important rubric of all — new HIV infections from blood donations and transfusions — this set of policies largely brought the problem under control. We can see the effect brought about by the change in policy in Figure 2 (which reproduces evidence from del Rio and Sepúlveda (2002)). In 1986, the ratio of male-to-female HIV+ people was 25:1, which is expected in and largely indicative of an epidemic primarily affecting MSM; by 1992, that ratio was down to 5:1, remained stable until 1999, and then began to climb once again.²²

7.4 Second phase: CONASIDA II

For Mexican policy-makers, the commercial blood donor epidemic served as the catalyst for coordinated and planned public policy and action with respect to the growing HIV/AIDS epidemic. Once it became clearer that the problems of the blood donor population were on their way toward being under control, attention turned toward taking steps to better manage the various streams of knowledge and connect the dissimilar constituencies. Over time, it had become apparent that a simple working group of biomedical experts was insufficient for the future management of the disease's spread and developing appropriate responses to the epidemic. By 1988, it had become apparent the world over that such measures as had worked in the past would not work or apply in the case of this epidemic (Engel 2006). Mexico's realization was occurring in tandem with similar ones in many other countries.

CONASIDA (I) was formally reconstituted in August 1988 by executive order, and it was changed from a "committee" operating as essentially a working group under the auspice of the Health Ministry to a "council" or "board." (I refer to this council entity as CONASIDA II.²³) The presidential decree set out the council's new goals and structure and provided a greater measure of institutional stability and

²²Because HIV has a long incubation period, with many people not finding out that they are HIV positive until they manifest diseases associated with compromised immune systems or they receive an HIV test, some prevalence measures (especially near the beginning of the epidemic) tended to lag actual infection times by somewhere on the order of 5–7 years.

²³Consejo Nacional para la Prevención y el Control de VIH/SIDA.

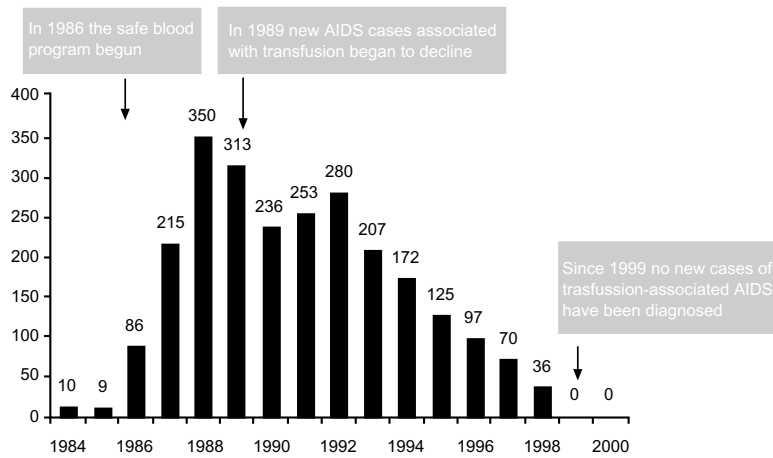


Fig. 2. AIDS cases associated with blood transfusion in Mexico (through July 2000, by date of diagnosis).

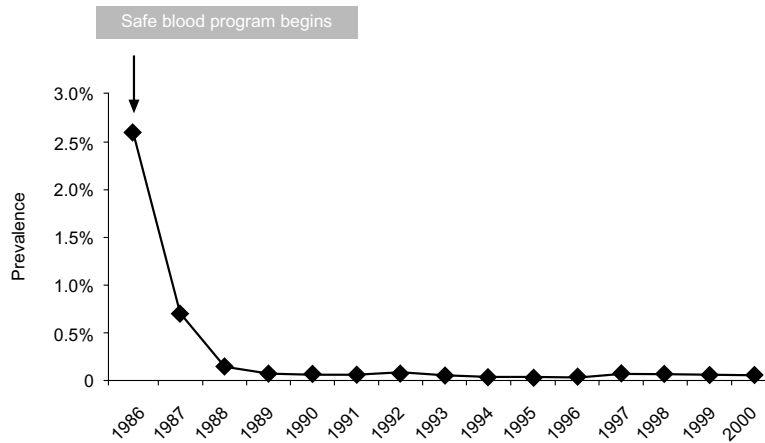


Fig. 3. HIV prevalence among blood donors, Mexico 1986–2000. From the National HIV Laboratory Network.

Figure 2: The effect of blood policy interventions. From del Rio and Sepúlveda (2002).

permanence for the AIDS policy organ. Moreover, the change from CONASIDA I to II brought with it the lifeblood of organizational establishment and action: greater resources. Not only was CONASIDA II able to obtain financing from the WHO Global AIDS Program (the predecessor organization to UNAIDS), but under the Salinas administration (1988–94), it garnered more and more funding from the Mexican federal government (Torres-Ruiz 2006, 128).²⁴ Again, this is in contrast to the contemporary events in the United States, where President Reagan did not give a major speech on the AIDS crisis until 1987, and the administration had largely opposed the Surgeon General's mailing to all American households in 1986.

In the second CONASIDA, a variety of "technical" and "academic" (research) committees²⁵ were put in place, to provide more appropriate fora for discussion and policy recommendation development than had been possible under a single committee like the first CONASIDA. "Particularly novel" for the Mexican health system, these committees operated in a fairly decentralized fashion, which one analyst characterized as rather successful for pushing forward the work that they had to do (Magis Rodríguez 2000). The primary—and significant for this discussion—difference between what I have called CONASIDA I (the committee that existed from 1986–88) and CONASIDA II (the national council established in 1988) was that the council form "gav[e] it a multisectoral composition that went beyond the scope of individual health sector response" (del Rio and Sepúlveda 2002, 1445).

Although not a completely independent body, in both of its incarnations CONASIDA's relative independence from the Health Ministry as well as its broad mandate for its duties and scope allowed it to serve, at least in the beginning, as a network hub to facilitate the exchange of information between different parts of the ministry of health or between Salud's programs and the analysis, advice, and programming of NGOs like the Ford Foundation or the gay lobby pressure groups. Additionally, because of their "introduction" to each other through CONASIDA, actors in the HIV/AIDS policy arena could go on to forge direct links, thereby creating another pathway by which information and resultant analysis were passed about those people and organizations involved in the fight against AIDS. As we

²⁴Torres-Ruiz (2006) argues that reforms to Mexican HIV/AIDS policies have reflected the emergence of a "policy network." For example, there was a major world bank loan in 1999–2000, that "was negotiated with the involvement of civil society organizations." The extra-governmental organizations with an interest in the issue have been able to shape national and international policies dealing with Mexico's epidemic.

²⁵The former group consisted of committees on Health Education, Epidemiological Research and Monitoring, Blood Banks, Clinical-Therapeutic matters, and Legal Aspects; the latter category of committees included Pathology, Perinatology, Social Aspects, Epidemiological Models, and Psychological Aspects.

will discuss further on, there has been a fairly stable set of individuals working at high levels in the Mexican HIV policy regime; although their particular roles changed frequently, many of them rotated in and out of CONASIDA II (and associated research, government, and foundation agencies) and its successor, CENSIDA.

As the 1980s wore on, it began to become clear that in addition to the epidemics among MSM, women and children who had received blood products, and commercial sex workers, another unusual group (at least as compared to the “usual” risk groups) began to emerge as at particular risk for HIV infection. Cases in Mexico’s rural areas began to rise exponentially, although it was initially difficult to understand the source of the infections (Magis Rodríguez et al. 1995). It soon became apparent, however, that the rise in rural AIDS cases, especially among women, was a consequence of cross-border migration back and forth between Mexico and the United States. Men would travel (temporarily) to the United States for work, engage in practices that put them at higher risk for HIV infection, and eventually acquire the disease. Upon returning home to Mexico, they transmitted the disease to their wives. Because HIV had, until this time, primarily affected people and groups in the urban centers, most rural residents had not been exposed to information as to how the virus infected people and how to prevent oneself from becoming infected. Migratory workers did not know that some of their practices while away from home were risky to themselves and to others.

Although the linkage between HIV’s spread and migration patterns has since been observed in a variety of settings and seen as commonplace (Specter 2001; Waldman 2005), Mexico was one of the first countries to identify the connection. The research indicating that there was a new risk group for epidemiologists and policy-makers to which to pay attention came out of CONASIDA II.

The problem of migrants as potential HIV risk group was common to both the United States and Mexico, as the vast majority of Mexico’s cross-border human traffic takes place along the nearly 2,000 miles of its border with the U.S.²⁶ For several reasons, however, U.S. authorities were not the ones to notice first the connection of economic migration and the spread of HIV: the prominence of MSM in the U.S. epidemic and the significant flows of illegal immigrants from Mexico who remained out of sight to public health officers both lessened the noticeability in the U.S. of migrant-based HIV transmission.

²⁶Mexico’s southern border also has immigrant traffic, of poor people from Belize and Guatemala entering Mexico along the way to the U.S. or for Mexico’s own opportunities. There is some increase in HIV infection from this southern border traffic, but that attributable to the northern border dwarfs it in magnitude. See Magis Rodríguez et al. (1995).

One of CONASIDA II's first new initiatives was to work with migration authorities and the Los Angeles Consul General; they founded an office in that city that met with approximately 450 people per year from 1990–1993. Starting in 1989, CONASIDA II also began working with other units of the national government (like the Education Secretariat), the military, and provincial governments on media campaigns directed at various groups believed to be at greater risk, such as MSMs, IDUs, homeless children, adolescents, and women (Magis Rodríguez and Parrini Roses 2003, 17).

By 1997, however, the Mexican government had undertaken a full-scale reform of the health-care system. As part of the reform measures, CONASIDA II's functions were consolidated, its own administrative structure was modified, and it was folded back into Salud (the Department of Health). However, the roles and duties that CONASIDA II undertook continued to grow over the period from 1997–2000. Although Magis Rodríguez and Parrini Roses (2003) characterized this period of time as one of decentralization for the health sector generally, CONASIDA's projects grew in scope and size, continuing the trend that began in the early '90s. Beyond its initial role in facilitating and offering coordination services for multisectoral responses, CONASIDA II's activities expanded to include the following:

- CONASIDA was a federal-level organization, but it also assisted the Mexican states (provinces) to form and implement their own policy programs
- On the federal level, CONASIDA took the lead to “improv[e] the public policy environment on the theme of HIV/AIDS.”
- Took the lead on developing various *Normas Oficiales* (Official Standards—that is, technical policy implementations) for the prevention and treatment of HIV/AIDS
- Set-up and (initially) ran a free, confidential, phone service, providing information and advice on issues of sexual orientation, HIV/AIDS, STIs, and associated human rights
- Sponsored and helped to run social and epidemiological research on the efficacy of various strategies to combat the spread of HIV, whether through treatment, prevention, or mediation efforts. Special focus was given to research that examined sub-populations particularly at-risk, like pregnant women and IDUs.
- Expanded the scope of education programs for sex workers and IDUs. (Magis Rodríguez and Parrini Roses 2003, 19–20)

These activities went well beyond the original operational ambit of CONASIDA II, but they were largely sensible in the context.

Since the establishment of a Mexican response, CONASIDA II had existed as the only arm of the Mexican state with an operational ca-

capacity across the many aspects of the epidemic. The role to coordinate different sectoral and sub-sectoral responses—to be the hub around which to grow the HIV/AIDS response network—gave CONASIDA II two things that facilitated its expansion: more overall information than any other actor possessed, and operational centrality (like that shown in Figure 1b). That is, since it was in the middle of everything, it had lower information costs and lower networking costs. Information and personal connections were by no means *required* to pass through CONASIDA II, but due to its place in the world of HIV scientific researchers, policy analysts, and decision-makers, it was quite *likely* to occur in this way.

7.5 Third phase: CENSIDA

Eventually, after health reform was completed, it became evident that the scope of social research and policy response planning around AIDS needed to be expanded. To this end, in 2001 CENSIDA²⁷ was created. According to Magis Rodríguez and Parrini Roses (2003, 20), a “CONASIDA” was retained as “collegial” organization “as much in its attitude as in its integration.” CONASIDA’s role was specifically re-focused upon building collegial relations for collaboration across public (government), private (business and commerce), and civil society sectors (Magis Rodríguez and Parrini Roses 2003)(Torres-Ruiz 2006, 128).²⁸

In large measure, except (in part) for fostering communication and collegiality among the various actors involved in Mexican society for responding to HIV/AIDS, CENSIDA carries on the same functions and processes assigned to CONASIDA II. The largest difference between these two instantiations of HIV policy coordination is that CENSIDA has more explicitly incorporated CSO/NGOs into its operations. CENSIDA has a “department” of CSOs, in the same fashion as the various committees described above. As one interview subject explained, this provides NGOs, advocacy groups, non-governmental care organizations (e.g., private clinics) “a place at the table” (Quiroz 2008). NGOs have become an official part of the policy development and evaluation process.

²⁷Centro Nacional para la Prevención y el Control de la SIDA, the National Center for the Prevention and Control of AIDS

²⁸Even more specifically, the retained CONASIDA was composed of the Secretaries of Health and Education, the director of CENSIDA (who acts as the technical secretary/executive director), “the Directors of the two main social security institutions (IMSS and ISSSTE), and the National Institute for Nutrition and Medical Sciences (INN)”(Torres-Ruiz 2006, 128–29) (See also República Mexicana 2001).

8 Different epidemics require different responses

Epidemiologists often describe the AIDS epidemic as consisting of the confluence of several different types of epidemics, and this is especially true in a concentrated²⁹ epidemic like the ones in Mexico and the U.S. Each of these in reality consists of epidemics among MSM, IDU,³⁰ CSW,³¹ female partners of high-risk men, trans-border migrants (Mexico), and black women (U.S.). As a result, interventions — whether treatment or prevention — that target the entire population will be less effective than those that aim at the specific populations most at risk for acquiring or transmitting the disease.

In this section, I discuss two of the “sub-epidemics” occurring in Mexico — those in MSM and the migrant-based epidemic — and how the government organs have responded to these epidemics. (Note that the blood-donor epidemic, having been discussed above, will not be discussed here.)

8.1 Epidemic among MSM

As in the United States, AIDS first arrived in Mexico in homosexual men, appearing most often among those from medium to high socio-economic backgrounds who had worked or studied in the U.S. in the years previous to 1983. Having some level of interaction with the U.S. gay community, these Mexican men had become aware of the growth of the mysterious disease that appeared to stalk gay men, and they were greatly alarmed at what was befalling American friends and lovers, suggested one interviewee. So when the first cases of AIDS showed up in Mexico in 1983, not only public health officials knew what was going on.

Mexican elites in general pay attention to what occurs in the US, whether in politics, science, or society. Mexican doctors and epidemiologists were well aware of the growing crisis in America and Europe over the new disease with an unknown etiology. Similar to what was happening in the U.S., since the disease was mainly confined to gay men, gay men also paid great attention to developments in the science of the new disease.

Gay life in Mexico in the 1980s remained largely underground, primarily restricted to the large urban areas of Mexico City, Guadalajara, Cuernavaca, Monterrey, and Tijuana (this remains largely true even today). Mexican gays had experienced no comparable movement or

²⁹The prevalence for at-risk subgroups runs particularly high, but the overall population prevalence remains below about 1 percent.

³⁰Intravenous/Injecting Drug User

³¹Commercial Sex Workers

demands for civil rights such as that sparked by the Stonewall Riots in New York, after the 1969 death of Judy Garland (for a good overview, see Shilts 1982). But as AIDS began to strike Mexican MSM, it proved a rallying point for what gay community did then exist. Numerous of my interview subjects indicated that demands for treatment access, human rights protections, and greater medical assistance originated in the gay NGOs, and that even today, these are still probably the most powerful and influential voices among those affected HIV/AIDS.

Throughout the 1980s and early '90s, Mexican AIDS efforts, after addressing the blood donor and recipient crises, focused primarily upon MSMs and, to a lesser extent, commercial sex workers (the latter group is discussed extensively in del Rio and Sepúlveda 2002). But, as in countries around the world, targeted prevention efforts and palliative care for the illnesses associated with advancing HIV were virtually all that was possible in terms of treatment until 1996, when results for trials of HAART³² were announced at the World AIDS Conference in Vancouver, revolutionizing HIV care and treatment.

AIDS and homosexuality remained difficult to discuss in Mexico, and this has affected the shape of official responses to the epidemic in the country. Mexico has certainly made great strides in recent years: "Although *machismo* leads many Latin American countries to play ostrich about homosexuality, Mexico and Peru each openly report that their epidemics are driven mainly by men who have sex with men (MSM)—including many who also have sex with women" (Cohen 2006b, 468). That said, openness in gay life has come only recently; for example, Mexico City's "gayborhood", the *Zona Rosa*, appears fairly open and rather like urban gay enclaves in the US or Europe, but at least two of my informants indicated that this state of affairs had only occurred in the last five or seven years.³³

Since the mid-1990s, the epidemic among MSM has emerged as the most significant and constant component of the HIV epidemic in Mexico: new infections emerge at a fairly constant and consistent rate from year to year. Seeing this, researchers and policymakers in CONASIDA II/CENSIDA resolved to address this population more directly.

One of the more significant results of this determination has been the launch of an anti-homophobia campaign as one of the critical legs

³²Highly Active Anti-Retroviral Therapy. Often also called "triple cocktail" or "combination" therapy.

³³Other potential enclaves exist. US and European émigrés and highly educated Mexican citizens tend toward a general acceptance of homosexuality, or at least of its existence. Mexicans with idiosyncratic connections to world events also evince a form of toleration: when I visited a church associated with the Anglican Communion, which has been riven by divisions over human sexuality in recent years, discussion with parishioners there indicated that they were somewhat aware of the associated issues and at least not outspokenly hostile.

in HIV prevention strategies among MSM. As in other Latin American countries, in Mexico a fairly large number of MSM also have sex with the women who are their girlfriends, partners, or wives. After the measures taken to stop the blood epidemic, many Mexican women who received HIV received it from their bisexual partners.

The problem is the same as that faced in the U.S. African American community. As Cohen (1999), Denizet-Lewis (2003), and others have documented, in communities where very traditional norms of masculinity prevail, same-sex sexual activity does not fail to exist, but it is driven deeply into secret. This creates a problem in terms of HIV: deeply hidden MSM will not receive information as often as more “out” men about the various methods by which they can reduce their risk for HIV. Because they are having sex with other men, their risk is much higher than that for the general population, and if they are also having sex with women, they can accordingly put these women at much higher risk for contracting HIV. These men “on the down-low” (as it is known in U.S. African-American MSM circles) are overall less likely to receive preventive education, to be tested for HIV and know their sero-status, and to seek and access treatment. Just as with the blood donation-driven epidemic of the late ‘80s, this situation creates a perfect situation for the virus to spread widely and relatively unimpeded.³⁴ As a (partial) result of the foregoing social circumstances, MSM are the single largest group by category of transmission, constituting somewhere between 35 and 45 percent of all AIDS cases (Cáceres 2002, S25).

The anti-homophobia campaign has primarily consisted of a variety of public awareness campaigns to normalize and destigmatize homosexuality.

On the national front, Saavedra has spearheaded an anti-homophobia campaign of radio and TV ads — so provocative that two Mexican states refused to run them — and posters, including one that shows a man and a woman both leaning their heads against the archetypical macho Mexican man dressed in revolutionary garb. “The anti-homophobia campaign really has opened a lot of discussion on this issue,” Saavedra says (Cohen 2006a, 479).

Discrimination against a person based upon sexual orientation or perceived orientation have also become actions that a Mexican citizen can register formal complaint with human rights enforcement bodies.

Based simply upon a combination of past actions and the arrangement of political players in the Mexican system, a campaign like the

³⁴Within the U.S. African American community, the culture of the “D.L.” has been held at least partially responsible for HIV rates driven to levels that WHO would classify as a generalized epidemic, were they a country.

one against homophobia is extraordinary. First, with the exception of Brazil,³⁵ there is no other country in Latin America doing anything like this — most Latin American countries are very reticent to discuss issues around sexuality and sexual practice.

Second, the particular constellation of players in the Mexican system during this period would not be expected to provide support or allow such a campaign. Although the Roman Catholic church is powerful and by far the dominant religious voice in Mexican society, there is a norm of very strict separation of church and state (in part, an outcome of the early 20th century *cristero* movement, where the socialist government sought to stamp out religious authority and expression). The Church's power is exercised primarily via the bully pulpit, and Mexican authorities appear willing to resist the direction of the bishops when good policy or science dictate.³⁶ Mexicans also tend to be socially and sexually rather conservative; opinion polls have shown that they generally disapprove of homosexuality. In general, then, public discussion of any aspect of sex, much less advocacy for tolerance of a sexual minority, is extremely significant. Finally, the dominant national political party since the democratic consolidation, the PAN, is something of a socially conservative party; on the other hand, it wishes to distance itself from the PRI's reputation for ignoring experts and for not governing in the interests of the Mexican people (as opposed to party cronies). Thus, the PAN became willing to support the program to demonstrate its commitment to science, openness, and democratic values.

9 Governmental responses to the epidemic.

9.1 Function served by government bodies

HIV/AIDS broke down the normal barriers between decision makers and scientific researchers. The normal pattern (in all areas of health policy in Mexico) is that scientists speak in a language inaccessible to decision-makers: the crafters of policy “don't have sufficient knowledge to understand statistics and don't have time to read research reports — even more when they are research on sexuality — that are very long. . . . The problem can be equally distributed between the two

³⁵Brazil is almost always the exceptional case in Latin America and in the world generally. As a country, it has historically moved quickly on issues around HIV/AIDS, putting in place prevention and treatment programs considered significant and revolutionary.

³⁶In interviews, it was pointed out to me that the separation of church and state is taken so seriously that the Mexican president is expected to attend religious services in public rarely, if at all. To be seen in church would be seen as “taking directions” from the religious hierarchy.

sides: scientists stick to their established publications and networks, and health ministry functionaries don't have time to read scientific articles'" (Magis Rodríguez 2000).

Although CONASIDA/CENSIDA provided an organizational and structural forum by which scientific information could be directed to decision-makers, providing a singular access point for those who desired it, a natural gateway into the entire apparatus of HIV science in Mexico, it was hardly the only place where policy chiefs and scientists interacted. Crucial to the relationship between researchers and those who decide, Magis Rodríguez (2000) argues that the various congresses and meetings on HIV (national and international) have also made significant contributions to the interchange of information between the two groups most crucial to forming national HIV/AIDS policies.

At meetings like the biannual international AIDS conference, hard scientific researchers bump along the same hallways as national health ministers, bureaucratic functionaries, and heads of state. They are joined by epidemiologists, social scientists, care and service providers, drug manufacturers, and activists from all over the world. As much exhibition as scientific conference, these gatherings have formal sessions organized around sharing information on every aspect of the disease and its effect on human society. Even so, as one informant indicated, these conferences provide the chance to interact with every person or group in which one might be interested all at once. Personal observations confirmed this was a central element of AIDS 2008, something many participants regarded as equally (if not more) important with learning about the latest results in scientific research.

As a result the interaction between research scientists and policy makers or agenda setters often depends upon these conferences, as a way of introducing them to one another, to establish personal relationships that often prove important to the sharing of information and idea across established institutional boundaries. The "principal function that congresses serve is as fora for fomenting informal relationships in the 'hallways' " (Magis Rodríguez 2000).

The familiarity that develops between groups of researchers and policymakers becomes the basis on which evaluations are ultimately judged. There is an "emphasis on personal ties, the valuation of experience over information, and the reduced significance attached to publications as an index of research quality" (Trostle et al. 1999, 112); interestingly, scientific researchers as well as politicians were willing to rely upon reputation as much as "the study design or content of the data (107)." This is something of a natural consequence of the political process, wherein policymakers rely on all sorts of cues to tell them about the information they receive. This is more interesting for the scientific process, which purports to judge work produced on the

work itself rather than who does it. Moreover, from the policymaker's perspective, scientific research about the "correct" policy course is simply one or many inputs that the politician must consider.³⁷

Magis Rodríguez (2000) advocates something of a middle way in these matters: "... a policy that takes to itself more consensus and more information will not only be a better policy, but should increase the margin of acceptance by various sectors and actors. In turn, it will establish a type of 'credit' for policymakers from researchers and NGOs in future decisions."

9.2 Methods of response

Magis Rodríguez and Parrini Roses (2003) argue that there exist three essential components to the Mexican HIV/AIDS policy response that have remained constant and provided a framework for creating further policy. Although the particular strategies have changed, these three components provide the goals for HIV/AIDS care: medical care, human rights, and government-and-civil-society partnerships. For our purposes, the latter two are the more interesting, since medical care has been a universal, requisite, and vital element of the response to the epidemic from the beginning.

9.2.1 Information Coordination

For much of the time that AIDS has been epidemic in Mexico, there has been little to no mechanism to bring together the variety of information collected at the national and provincial levels. This has historically made it difficult to obtain information on the state of the epidemic that is both correct and timely.

This system came about as individuals charged with improving the health system's response to the epidemic began to realize that without better information organization and distribution, they would be unable to improve the situation as it stood. In the late 1990s, there were parallel but unconnected institutions for reporting data relevant to the care of PLWHAs³⁸ and administrative management of the various programs dealing with their care. But there did not exist a single place where one could find the number of HIV+ people in the Mexican health care system, their morbidity and mortality, or their age, sex, residence, and so forth. At the end of 2005, CENSIDA launched a

³⁷In my own interactions with public health scientists, I have noted many times over a frustration with democratic and other political processes, in terms of their inability to quickly or completely deliver the "correct" outcomes.

³⁸People Living With HIV/AIDS.

new system to collect and consolidate all the data necessary to facilitate the care of PLWHAs. This system, called “SALVAR” (meaning, “to save” or “to heal”) put the clinical records of everyone receiving state services for HIV on-line. Thus, for every unit in the country providing ARV services — 56 units in total — there is consolidated, live information on people’s sex, age, residence, receiving location, current treatment regimen, lab test results, CD4 count, and viral load count. This information was then first used in 2007 (after the first year of data) to improve ongoing quality and quantity of services.

10 Explaining the Mexican response

In the case of Mexico, three different phenomena (forces) prove key in the governmental response to the HIV/AIDS epidemic. First, we have seen that the particular organizational form — a network of governmental and non-governmental actors bound together in more collaborative than control relationships — that was chosen to manage information about the epidemic and to coordinate the response played a role in Mexico.

Second, the people and organizations working on HIV/AIDS policies engaged in information prospecting behavior; that is, they actively searched for the types of information that would provide relevant feedback on the relative success of the policies pursued. In some cases, they gathered information from outside the bounds of the country, generally from PAHO and WHO/UNAIDS. But in other cases, they engaged in research activities to more directly assess the results of interventions made domestically. The blood contamination story reflects this latter sort of information use and application, as does the introduction of the anti-homophobia campaign.

Third, a stable network of individuals involved in HIV/AIDS policy over the 25 years that Mexico has encountered the disease have provided the information repository needed for learning. Accumulating relevant information for a policy area or problem takes time and retaining that information within *people* is probably the greatest resource investment that occurs in policy development and management. Whether decision-maker or technical researcher, the actors involved accumulate knowledge as they go about doing their work.

As with any policy area, the development of HIV policy was complex. Over time it became more complex for two reasons. First, the social factors influencing those policies were in constant motion. Affected populations can shift, for example, as some group or sub-population becomes better protected or treated for the disease; when the first sub-population stabilizes, crossover members can open up new frontiers for disease transmission. Thus, even if and when HIV

could be brought under control among MSMs, there might be a correspondent rise in the number of IDUs who come down with the disease, if prevention and treatment efforts have not been similarly extended to the second subpopulation. Second, the state of scientific knowledge about the disease evolves, and this necessitates changes to policy as it becomes slowly clearer what will prove more or less useful against the disease.

Mexico's fairly stable network of people involved in the fight against HIV/AIDS has proven one of the reasons that it has fared fairly well in the epidemic. The longer each person remains at work in the field, the more information s/he accumulates, the deeper the well upon which to draw when conducting research, making policy recommendations, or implementing programs. This repository is certainly replaceable, but the cost of replacement is proportionate to the amount of time the person lost was involved in HIV/AIDS policy. Moreover, greater knowledge and experience can (but does not *necessarily*) bolster the authority of the person possessing it. Thus, the person who has worked on the analysis and development of AIDS policy for 15 years will have accumulated all sorts of undocumented knowledge from meetings attended, correspondence written and lost, formal and informal conversations at conferences, hallways, and in cafes. This person will have knowledge of the specific details of roads taken and not taken that will be difficult if not impossible for the newcomer to replicate from the documented record.

And it is the combination of this stable network of people along with an information management organization designed to minimize individual institutional role barriers that most helped Mexico. While some people, such as epidemiological and social researchers Carlos Magis Rodríguez and Griselda Hernandez Tepichín, remain in roughly the same roles over a long period of time (Ligouri 2008), the more relevant data is to look at the total set of people involved in HIV/AIDS research and policy. To a remarkably consistent extent, the names on papers, books, reports, and conference panels are the same from the mid-'80s until now. Their particular employers change, but their work does not and their world is small. Trostle et al. (1999) point out

... there are relatively few Mexican health researchers. The Mexican national research system... includes a total of only 2051 health-related researchers among 6350 researchers in the system. The relatively small size of this scientific community increases the likelihood that any single researcher has a chance to become a policy-maker, and that researchers and policy-makers will know one another.

10.1 How Information was Used

Much of the problem of organizational learning revolves around the relationship between those who have pieces of information and those who do not, and how that information may be transmitted to those actors which lack it. The second CONASIDA represented a novel solution to this problem: by taking people working on AIDS from all over the Mexican health care system and putting them together in these research committees, CONASIDA sought to minimize the chances that pieces of relevant information to the epidemic would go unnoticed or unheeded, for the reports of the committees all went to the sub-cabinet level of the Ministry of Health. In this fashion the number of inter-mediating levels was minimized, to some extent.

CONASIDA's various committee were not all found under the same roof, and their institutional loci tended to be found near to those bits and pieces of the Mexican medical complex that most corresponded to their subject material. So, for example, the Committee on Education was coordinated out of the Directorate of Health Promotion, the Epidemiological Committee from the National Institute of Epidemiological Diagnosis and Reporting, and the Clinical-therapeutic Committee from the Nutrition Institute (which is dedicated more broadly to research and practice around living healthily, not just eating practices).

Some committees worked better than others, however, and these particular committees tended to be more effective at advocating for the issues under their purview. They did this through the production of research: committees provided focal points for research on AIDS and its progress, and the quality of the research produced translated into bargaining power and influence over the internal direction of CONASIDA. "This competition influenced the necessity of doing more and better research, on the one hand, and the intrinsic singularity of the organizational model, on the other, allowed some decisions to depart from the norms. . . ." Thus, loci of decision-making and the decisions themselves were freed from the "normal" places and directions that professionals in the health complex expected. (Magis Rodríguez (2000) indicates, for example, that epidemiological monitoring would normally be carried out in Salud's epidemiological directorate—somewhat akin to the U.S.'s CDC—but that with HIV/AIDS, monitoring was carried out in INDRE—analogueous to the US NIAID, which is more of a basic research institute.)

AIDS was thus novel because it broke the bottoms upon which public health policy had been conducted. An instructive comparison exists with the concurrent United States response to the growing HIV epidemic. According to most analysts, during the same time period, from the first identification of AIDS until about roughly 1990, the

American response to the epidemic was fragmented and suffered from both bureaucratic infighting and lack of coordination among the various entities addressing HIV (Engel 2006; Shilts 1987; Grmek 1990). Moreover, in the U.S., the response to AIDS was (at least initially) constrained to fit within the usual pathways for public health responses to new diseases; information and ideas were supposed to go up the chain of command but they often became lost on this journey. This led to competition between agencies and duplication of effort in the first years of the plague.

Mexico saw the linkage between researchers and policy-makers strengthened during the AIDS epidemic. Two reasons seem to be most significant. First, the entire novelty of AIDS as an infectious disease and as a problem for public health policy led decision-makers to act with “humility” (Trostle et al. 1999, 110) and seek out all the information that they could find — information that lay primarily in the hands of scientific researchers. Even as much of the research on the etiology and epidemiology of AIDS was conducted in the United States and Western Europe, Mexican scientists had to translate (often literally, of course, since much of the scientific literature was in English or French) scientific language into terms upon which policymakers could understand what was happening to individuals and populations. Mexican AIDS scientists also provided information specific to the progress of the disease in their own country. Second, besides the fact that the disease was new and unknown, “policymakers needed support and justification for decisions” (Magis Rodríguez 2000). In Mexico, as in the U.S. and Europe, AIDS found and finds its greatest prevalence in groups that are mostly marginal and socially unacceptable, such as IDUs, MSMs, sex workers, and lower socio-economic classes like immigrants. Although perhaps convinced of the need to recognize and assist such populations, policy-makers also recognized the unpopularity of acknowledging and helping such people; researcher evidence and results provided cover.

We also see that in the Mexican response to HIV/AIDS, linkages to international organizations, especially those of or affiliated with the UN system, proved important. Not only did organizations like the WHO, UNAIDS (and its predecessor within the WHO), PAHO, and the U.S. CDC provide funding to Mexican initiatives against HIV (the reconstitution of CONASIDA, for example, received support from the UN), but they also brought in information and perspectives that were otherwise not seen in Mexico. By providing information on groups at-risk and the methods of transmission for the virus, international organizations opened up the space of discussion in Mexican politics and bureaucracy. Uncomfortable topics like homosexual activity, drug use, prostitution, and even how the continued commercialization of the blood business could be more easily discussed when the weight of

influential and respected international organizations was behind addressing such matters. As one interview subject in Magis Rodríguez (2000) indicated, the WHO's forceful work on AIDS — via its declarations, publications, and convocations of health ministers — “definitely for us were an invaluable support.” And as a result, such support also provided political cover for those making decisions, since the impetus of initiatives addressing undesirable populations came from outside the Mexican political system and from people who could be portrayed as health technocrats with no real stake in Mexican politics.

11 Conclusion: A learning organization

One of the principal architects and analysts of Mexico's HIV/AIDS policies has argued that the Mexican policy response has very much relied upon a learning-model process to make adjustments, corrections, and revisions to the policy-of-the-moment.

The strategies for confronting the HIV/AIDS epidemic have been changing over time. We have had the opportunity to learn from our own experience and from that of other countries as we go about adapting our response to this disease on the basis of existing knowledge and on our capacity to access medical advances and new technologies to combat HIV/AIDS. One example of this is the diverse changes of structure that have the main responsibility for monitoring and preventing the dissemination of the HIV/AIDS epidemic, just like the state health care centers that are in direct contact with the affected populations throughout whole country.

Another example of the changes [in response to things learned] are the prevention campaigns in the mass media, which were directed at different populations and used different approaches, according to the information and the available resources, the recommendations and the lessons learned throughout the country and the world. Initially, the greater part of the preventative strategies were directed at trying to change people's behavior; later it was seen that it is fundamental to design strategies in order to try to change the contexts of risk or vulnerability that hinder prevention—that is to say, to promote changes of social and legal standards, improve access to health services, or to decrease the violence and human rights violations associated with HIV/AIDS infection (Magis Rodríguez and Parrini Roses 2003, 24).

One might argue that this is what governments do with respect to policy regimes, but the purported obviousness of such an explanation belies the fact that organizational learning is hardly overdetermined when compared to alternative explanations, such as interest group politics, as many narratives of HIV politics since Shilts (1987) have argued. In the HIV/AIDS policy regime, both within countries and at the international level, the conventional wisdom is that policy outcomes are driven by the desires of the most powerful actors or interest groups, with little or no regard to dispassionate analysis and re-analysis. The case of Mexico indicates, however, that policymakers strive to develop and enact evidence-based policies, based upon consistent and new flows of information that are used for the evaluation and revision of measures to fight against the HIV epidemic.

Part III

Botswana

12 Introduction

As before, the focus of this case will be upon two aspects of the organizational dynamics at work in Botswana. First, *what happens to information?* Insofar as is possible with the present data, I will address how actors acquire information and what they do with it. Second, *how does the organizational arrangement of involved actors affect information movement and policy output?* I will examine how Botswana's particular arrangement of government agencies, public-private partnerships, and international assistance affected policy outcomes. Where possible, I discuss the role that lines of authority and decision responsibility (or the potential lack thereof) have in the observed outcomes.

12.1 Sources

As in the case of Mexico, data for this part were drawn from a wide variety of sources. I conducted in-person and telephone interviews with approximately 10 mid- and senior-level officials in various agencies involved in the development of policy (including UNAIDS and the Botswana National AIDS Coordinating Agency) and independent health policy/AIDS consultants working with the government. In addition, I collected electronic and physical documents and publications from the government of Botswana during the XVII International AIDS (AIDS 2008) conference in August 2008. I drew on a number of studies, published primarily in biomedical fields, detailing the results

of particular experiments and policy interventions in Botswana to assess the generally accepted efficacy of anti-HIV actions taken. I also drew upon journalistic resources, in the form of published periodical accounts of HIV/AIDS in Botswana, as well as interviewing a journalist particularly familiar with the situation of HIV policy in the country. Finally, to contextualize the epidemic in the larger situation of southern Africa and sub-Saharan Africa more generally, I used books, articles, and reports on the global and African pandemics, allowing a relative assessment of Botswana as well as creating a larger context for the facts and assertions below.

13 Primary actors involved

In this section, I briefly outline the major actors involved in the formation and setting of Botswana's HIV/AIDS policies. The Botswanan HIV/AIDS response has been primarily built from a combination of public and private sector components, generally in partnership with each other. Through the partnerships that the government of Botswana has set up or become involved in with private and semi-private entities, it has greatly expanded, beyond previous levels, its treatment and prevention programs.³⁹ Most, if not all, of the decision-making and program delivery in Botswana has occurred either through or under the delegated auspices of these partnerships.

... [T]his tiny country formed novel partnerships with leading universities, pharmaceutical companies, foundations, and developed country governments, which have provided generous funding, state-of-the-art equipment, training, and expertise (Cohen 2008, 526).

As a result of these partnerships, the treatment programs, especially, have scaled up tremendously, setting an example for all sorts of other countries. What sorts of programs have been expanded? Everyone who needs anti-HIV drugs receives them, free medical care is relatively easy to access, and PMTCT programs have been widely (and successfully) implemented (Cohen 2008, 526).

Beyond treatment, other long-term efforts have been established. For example, Botswana's government partnered with biomedical scientists from Harvard University to develop a laboratory for testing, monitoring, and surveillance activities. "The first of its kind anywhere in Africa, the laboratory, with a staff of 50, is equipped with gene sequencers and blood cell sorters, enabling scientists to keep track of

³⁹As we will see, this does not mean that such programs have been regarded as adequate or entirely successful.

the spread of HIV, especially the HIV-1C strain prevalent in Africa” (Rollnick 2002, n.p.)

Because the emphasis of this research is upon the role that organizational elements have played with respect to each other, I consider several of these organizations in turn, sketching out their individual and partnered contributions to the national HIV response. In general, the discussion proceeds entity by entity rather than chronologically.

13.1 Botswanan government

Botswanan bureaucracy is, to put it colloquially, quite intense. “The irony in Botswana is that part of the problem is the inheritance of the British civil servant’s approach,” says [Harvard public health professor] Michael Reich. . . . ‘Some people say they’re more British than the British.’ ” (Cohen 2008, 528). Botswana’s tortured bureaucracy is a function of the overlay of the colonial governing apparatus onto indigenous elements of leadership. The councils of chiefs, reliant upon traditional sources of authority, exist primarily at the local level, and their power overlaps with regional and local bureaucrats.

The Botswanan portrayal of the organizational arrangement of its AIDS policy organs shows elements of both network and hierarchical modes of organization. As we can see in Figure 3, although the National AIDS Council formally supervises all aspects of HIV/AIDS policy and “outranks” the other entities portrayed, its role is primarily to provide a national consultative and goal-setting body, containing representatives from various portions of the government, “parastatal” organizations, labor, industry and commerce, the NGO sector, the University of Botswana, the police, military, religious and women’s representatives. Most of the real work of policy proposal, analysis, persuasion, presentation, and supervision actually occurs in the National AIDS Coordinating Agency. The Botswanan government presents a picture of HIV planning and management that has the National AIDS Coordinating Agency (NACA) in touch with and assisting all levels of government — national, regional/provincial, and local. Upon examining Figure 4, however, the picture becomes more complicated, and the flow of information more complex. I shall return to this distinction and the implications of Figure 4 below.

Recent Botswanan experience confirms, in part, each of these theoretical assertions. Over time, the national government has also incorporated more “evidence-based” policy and program development into its plans, and the explicit focus upon backing up and revising policy in light of the available information has demonstrated a learning-based approach that, by most accounts, increases and improves policy output. We shall consider a few examples here of the interaction of information and policy change.

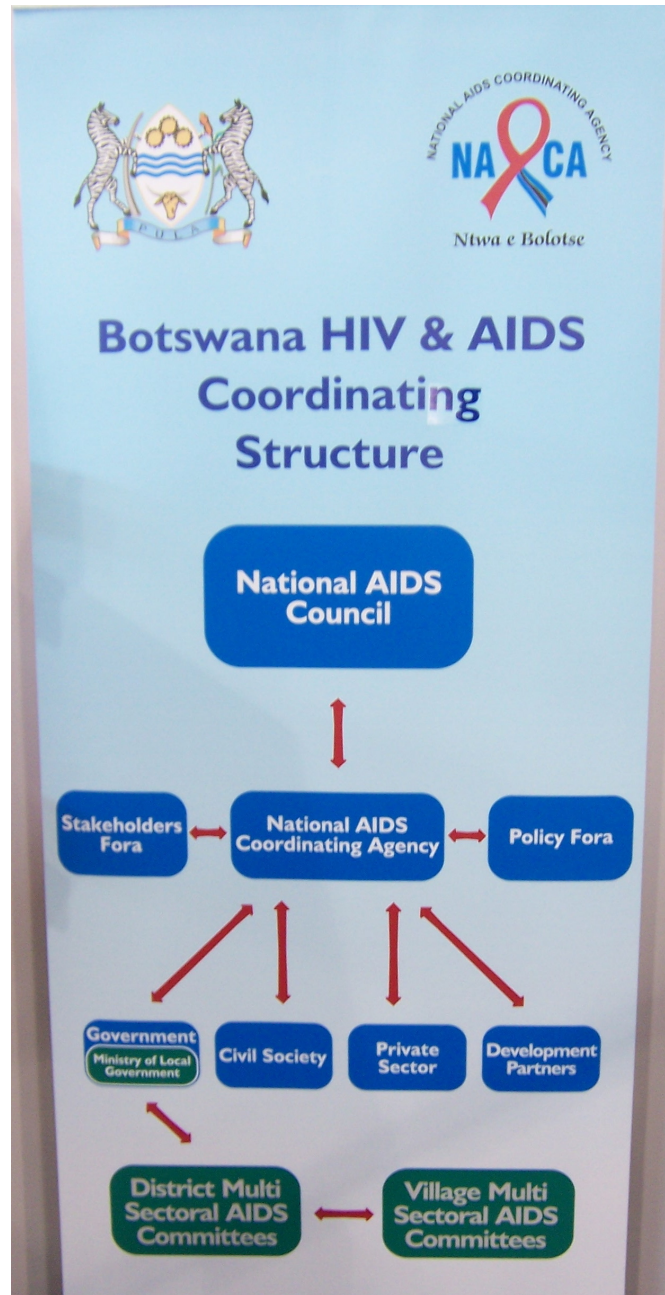


Figure 3: The national HIV policy structure, as portrayed by the government. Photo taken at XVII International AIDS Conference, 3–8 August 2008.

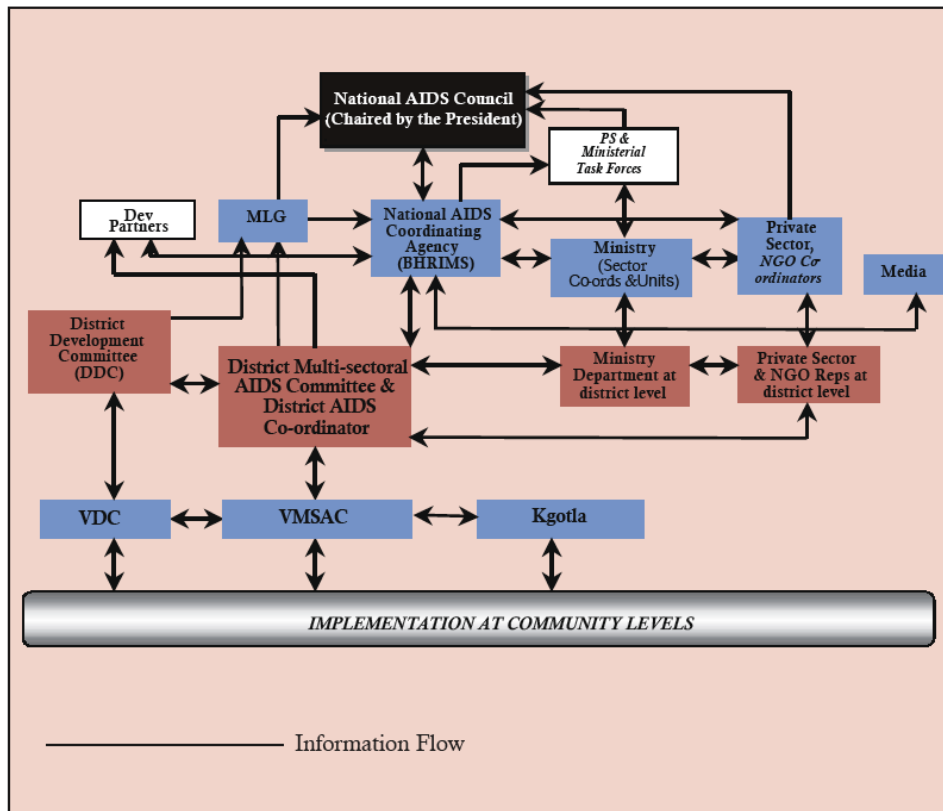


Figure 4: A more elaborate view of the national HIV structure and its corresponding information flows. Taken from Botswana National AIDS Coordinating Agency (2003, 91).

By 1988, however, the government had begun to move forward on addressing what it had come to realize was a major problem. It solicited the assistance of international experts as it developed surveillance and education campaigns, and the first national mass campaign, involving radio and media, bumper stickers, and t-shirts, took place this same year (Heald 2003, 222). This campaign was not particularly successful. Focusing on the condom as “the central plank,” the Batswana people greeted the campaign with “widespread disbelief.” The problem was that there was no outward and visible sign of the inward and viral menace. “For the population at large, at this point, there was simply no evidence in the form of morbidity or mortality to support the information on the impending epidemic” (Heald 2006, 33). AIDS even became known as the “radio disease” because the educational spots on radio were the sole experience that people had with the disease (Ingstad 1990). By 1996, however, mortality from AIDS had risen to such a point that great numbers of people had been affected by the results (Heald 2006, 33), although acknowledgment of having AIDS oneself or knowing someone with it remained a source of shame and stigma.

According to Heald (2006, 34), after the initial 1988 campaign, the Botswanan government failed to follow up on anti-HIV campaigns through the mid-’90s; additionally, major international donors pulled out of the country in 1995, ostensibly because Botswana was sufficiently rich among developing countries to finance its own response. (It should be recalled that highly effective treatment programs had not been announced to the world. The affordability of those treatments would take more than five additional years to start becoming available.) This negatively affected the future response against HIV, even as levels of HIV and AIDS rose to such levels as to no longer be ignorable. Because of the initial ill-considered form and focus of attention and its subsequent lack of follow-up, future campaigns, especially as regarded prevention, encountered difficulty engaging and mobilizing the population. What anti-HIV policy activity that did exist was contained almost entirely within the Ministry of Health, and that ministry was largely left to itself to address the problems of AIDS.

Further action on HIV in Botswana would take at least a decade to get going again.

13.2 NACA: National AIDS Coordinating Agency

In August 1999, President Mogae (who had been taken office 2 years earlier) re-launched governmental efforts to combat HIV/AIDS in Botswana. Since the advent of highly active anti-retroviral therapy (HAART) three years earlier, the anti-HIV drugs had been used to

great effectiveness in the developed world, bringing some AIDS patients back from the brink of death. At the time, Botswana had one of the very highest prevalence levels in the world;⁴⁰ President Mogae thus argued that the very first priority of the government was to take care of the portion of the population — between one-fifth and one-fourth — infected with HIV, especially those who had clinically progressed to AIDS.

Botswanan officials, particularly President Mogae, recognized that the anti-AIDS effort would have to be better managed, with attention paid to continuity and follow-up, to prevent the policy failure that had occurred a decade before. For the first ten to fifteen years that HIV was present in the country, it had been dealt with as an STI and then as a more general health problem; toward the end of the '90s, officials “realized it was more of a developmental problem” and that HIV/AIDS should be addressed through “more of a multi-sectoral approach” (Molomo 2008). They thus sought the assistance, technical and financial, of potential partners outside the country.

NACA was formed in 1999 through presidential decree, and from the start it was “given responsibility for mobilising and coordinating a multi-sectoral response to tackling the epidemic, including engaging the private sector” (Wilson 2007). NACA began its programmatic activities in January 2000 (Rollnick 2002).

According to two Botswana officials (Molomo 2008; Malthare 2008), NACA's role is to “provide the policy environment” that will “encourage and promote partnerships” to address the country's AIDS challenges. To this end, NACA creates strategy plans for the policy overall; oversees the implementation of those plans with M&E⁴¹ protocols; and it directs and advises “everyone else” as to the emphasis of HIV efforts and which sorts of efforts should be sustained. That said, NACA is “more like a point of convergence” than anything else.

In its first two years of operation NACA experienced severe shortages of trained staff, especially medical staff. Like ACHAP (see Section 13.3), hundreds of lay personnel were trained to make up the differences, performing tasks that did not strictly require doctors or nurses, such as post-test counseling (Rollnick 2002).

13.3 ACHAP

The African Comprehensive HIV/AIDS Partnership (ACHAP), established in late 2001, is a “public-private collaboration between [sic] the Government of Botswana, Merck, and the Bill and Melinda Gates

⁴⁰Botswana had the anti-distinction of being number one or number two, depending on the accuracy one imputes to the statistical calculations.

⁴¹Monitoring and Evaluation

Foundation.” It is designed to be “a comprehensive program of HIV/AIDS prevention, treatment, care, and support in one country in sub-Saharan Africa. . . . [—] a pilot program, which — if successful — could provide guidelines for other developing nations, for international organizations, for foundations, and for the governments of developing countries that ultimately would have to bear the tremendous cost of any comprehensive plan” (Distlerath and Macdonald 2004, 150, 148–49)

ACHAP did not start out upon the initiative of the government of Botswana. It grew out of Merck Pharmaceuticals’s “experiences with other philanthropic projects on access to medicines. . . .” Merck had been previously involved in programs to donate medicines for both HIV/AIDS and for onchocerciasis (river blindness). Because of this previous experience, Merck thought the simple donation of medicine was neither sufficient nor helpful “without support for strengthening the health care infrastructure to assure that medicines [would be] used effectively. (Ramiah and Reich 2006, 399)”

Merck entered upon the course of setting up a “public-private partnership” because it had prior experience with the model and because the company believed that private enterprise could bring entrepreneurial innovation to government thinking.

ACHAP’s relationship with the government was initially marked by a lack of clarity as to the division of labor and lines of authority. In the first year of existence and activity (2001), Ramiah and Reich (2006) identified key problems in the relationship between ACHAP and the government, which essentially boil down to a lack of definition in the relationship and its workings. ACHAP’s two primary partners (or stakeholders) were the government of Botswana and Merck Pharmaceutical. (Ramiah and Reich (2006, 401) note that the Gates Foundation played a limited role, as part of its “general approach to grantees at the time.”) But each actor located ACHAP’s operating authority in a different location, and this led to conflict over how best to run ACHAP, who had a say in its operations, and what should be done with its vast resources. For the government, the framework agreement establishing ACHAP indicated that the Botswanan state would be an equal partner with Merck; Merck saw operating authority as vested in the ACHAP board of directors, which contained no government representatives, including only members from the private side of the partnership (Ramiah and Reich 2006, 401–402).

Resultingly, this led to a division among the actors (eventually including the Gates Foundation) over ACHAP’s level of oversight in the overall national HIV/AIDS response, as well as in the intended recipient of the partnership’s largess. The government expected, to a large extent, that it would remain in charge of programs and spending within Botswana. “The government interpreted ‘support’ to mean

that the ACHAP board would donate the necessary funds and then leave implementation to government agencies” (Ramiah and Reich 2006, 401). Merck understood ACHAP to be partnered with but independent of the government, and it was committed to integrating the entrepreneurial thinking of private enterprise into whatever processes or programs it was involved in; as such, it expected that ACHAP would not simply serve as a relatively passive source of funds but as an active authority and expert implementer of programmatic responses.

Moreover, in the initial period, it was unclear what ACHAP would do with the (relatively) massive \$100 million (for five years, initially) at its disposal. This money contributed to the partnership’s perceived power to drive HIV/AIDS policy choices, a power that the government resented and NGOs envied.

(ACHAP’s major problem has never been money. Its initial funding, from Merck Pharmaceutical and the Gates Foundation, was for \$100 million. By 2005, the partnership had only spent a bit more than half of that amount. The problem proved to be “absorptive capacity.” As the Gates foundation analyzed in 2006, “we underestimated just how hard it is to build up the systems necessary to confront HIV/AIDS across an entire country” (Cohen 2008, 528).)

Thus, over this first year, two elements of the HIV/AIDS response structure contributed to its output and efficacy. First, ACHAP’s role vis-à-vis the government — that is, what the basis of the relationship was—was not defined in a sufficiently concrete way that all partners had a shared perception of their roles. Second, within ACHAP itself, because it was an organization just getting off the ground, its own internal structures and operations were still undergoing definition and settlement. Although Merck had experience in creating other public-private partnerships, each had to be individually adjusted to the local government, conditions, and relevant health crisis.

Combined, these two structural elements served to set up competing hubs in the network of HIV/AIDS agencies and providers: one in the Botswanan government/NACA and one in ACHAP. Because there was conflict over their roles, for government ministries and NGOs, it was unclear with whom they should be working to develop and fund their programs.

The organizational structure of the set of actors dealing with the HIV/AIDS crisis in Botswana initially had an effect upon the policy environment. For government agencies, there was a lack of clarity over whether to deal with NACA or ACHAP: while NACA was an entirely governmental entity (as opposed to a partnership with private actors), ACHAP had much greater resources at its command. Most governmental ministries and agencies ended up dealing with NACA, as it was the official government response entity for the

epidemic. They missed out, then, upon the process innovations that ACHAP was able to bring into programmatic responses, which provided access to ideas and information not normally available to the government, as they came from private sector entities. For NGOs, the problem was determining who was in charge, so as to receive authorization and support for the range of their activities. Nominally, the government was in charge, but with its involvement in ACHAP, it was unclear whether an NGO should access officialdom via the purely governmental organ or by the partnership one with superior resources. In sum, in the period of both NACA and ACHAP's establishment, each was developing its own network⁴² of Botswanan AIDS actors; with the possible universe of those actors being both finite and essentially identical, each hub competed with and largely duplicated the other.

Not all of what ACHAP faced at its inception were institutional difficulties. Some of the problems that ACHAP (or any similar entity would have) faced in 2001, upon its inception, were significant politico-economic ones. The most prominent problem proved to be the need for a massive increase in the numbers of health professionals to simply execute the day-to-day tasks involved in a mass HIV treatment program. A study by the McKinsey consulting group estimated the need for a 29% increase in doctors, 115% in lab technicians, and 179% in pharmacists (Cohen 2008, 528).

Matters did not improve in the subsequent two years of ACHAP's partnership with the government. Several sources focus on the partnership's executive director as a source of problems in ACHAP's relationship with the Botswanan state (Ramiah and Reich 2006; Cohen 2008; Heald 2006). The first director of the program, Donald de Korte, came from the ranks of Merck, having headed up the company's operations in South Africa, and he had a hard time working with counterparts and functionaries from within the Botswanan government, who claimed he did not understand the country's "culture of consultation". He responded that such a "culture" was actually a cover for bureaucratic slowness and inaction (Cohen 2008, 527).

Moreover, it appeared that the government was not the only actor at fault in the proliferation of an HIV/AIDS bureaucracy. Even in the first years of the Botswanan response of the '00s, major donors, IOs, NGOs, and other aid agencies saw the country as a near-ideal test case for whether anti-AIDS programs could be made to work in highly affected countries. So Botswana quickly became "a land of acronyms, with a mosaic of programmes and agencies criss-crossing one another" (Heald 2006, 36).

A lack of clarity over ACHAP's role continued to hinder it in

⁴²I use this word intentionally, in contrast to a "market" or "hierarchy".

2002 and even into 2003. “One source of tension in ACHAP’s second year was a growing concern that ACHAP was overstepping its role as facilitator and becoming an implementer” (Ramiah and Reich 2006, 404). In blunt terms, ACHAP continued to deal poorly with various portions of the government and it failed to recognize the consequences that might be expected. One manner in which this manifested was ACHAP staff dealt with senior government officials, but failed to cultivate and confer with mid-level staffers in NACA and the ministries. Thus, for example, when ACHAP embarked on one of its first projects — providing funds, facilities, and technical support to ramp up the national ARV response — the lack of involvement of implementation-level officials in previous negotiations meant that key agencies were not informed, drawing out the bureaucratic process and finally requiring the president to intervene to get matters settled (Ramiah and Reich 2006, 402-03).

ACHAP moved to become less of a facilitating entity and more of an implementer, and in the process, NGOs and the government both believed that the partnership was becoming less of a true partnership and more pushy and dominating (Ramiah and Reich 2006, 404). ACHAP was now perceived not so much as a separate entity; it was, instead, seen primarily a face of Merck, with Gates and the government as accessories or partners in name only.

This changed, however, in ACHAP’s third year, 2003, as the Gates Foundation changed its approach to grantees, taking a more active role in their operations. In doing this in Botswana, other actors’ perceptions of ACHAP changed, as it was no longer seen solely as a creature of Merck. Moreover, ACHAP had engaged in its own learning process regarding some of the problems it was having in putting programs in place, identifying them and then taking steps to reduce or eliminate those. For example, with de Korte’s rocky relationship with both the head of NACA and with Botswanan government officials, special efforts were made to foster better relations between the two men and, after further conflict over the need for “consensus-building”, de Korte left ACHAP. Further, ACHAP worked to engage mid-level policy implementers, looking for ways to speed up processes without stepping on toes. Thus, when ACHAP became involved in scaling up the national ARV program by helping in the construction of ARV treatment clinics, progress was considerably faster; where the government estimated that on its own it would take 18 months, ACHAP was able to complete the job in 3 months (Ramiah and Reich 2006, 404).

By late 2003, ACHAP’s relationships had evolved considerably, and it was an integral part of the Botswanan portion of the UN’s “Three by Five” program to get three million people worldwide on ARVs by 2005. More relevant to this analysis, ACHAP had taken steps to learn from the experience of the past and to put in place measures to

facilitate future learning. In addition to the staffing changes described above, in 2004, ACHAP and the government agreed to clarify their roles with regard to issues around funding and program oversight. (One of the government's chief objections over the previous three years had been that it had no input on ACHAP's funding decisions, as all these were made by the partnership's board of directors. ACHAP, wanting to partner with but remain independent from the government, had resisted putting a government representative on its board.) A separate funding committee was set up that included a representative of the government, giving the state a more direct line of input into how funding decisions would interact with and impact the government's non-ACHAP programs and partnerships or relationships with other anti-HIV organizations.

The result of these changes resulted in positive news for both ACHAP and Botswana. Whereas at the end of 2003, both Merck and Gates had "expressed reluctance to provide financial assistance beyond the initial \$100 million commitment" or to provide organizational support past 2005, by late 2004, Merck and Gates were sufficiently happy with the changes made that they agreed to extend support for five further years and to fund the remaining \$56.5 million (Ramiah and Reich 2006, 405–06). Cooperation has marked the relationship since that time, and ACHAP has become the major partner with the government in its treatment effort, as well as the biggest funder of the same.

14 Explaining the Organizational Element of Botswana's Response

14.1 Information Prospecting

Although experts now laud Botswana for its use of "evidence-based" methods and for particularly good use of monitoring and evaluation (M & E) protocols, this has not always been the case. During the first programmatic response in the late '80s and early '90s, very little information was collected or kept regarding the origin of program ideas, details of implementation, or any other systematic aspects. One interview subject said that record-keeping was so desultory because there were no official archives in this period; people had sometimes kept correspondence, reports, memos, and the like in their personal possession, such that when questions arose as to why and how particular actions had been undertaken, current and former officials had to search boxes in their garages for that information (Stegman 2008). Organizational evaluation and learning will be hard-put to operate in such an environment.

During the '90s, M & E protocols and procedures became a standard part of the requirements set forth by IOs, NGOs, and bilateral assistance funds. Thus, as Botswana came to realize the necessity for refocus upon its AIDS crisis, the government also had to think about how it would self-assess programs implemented with the help of partner or donor organizations. The international environment, as set by the donor actors and agencies, along with a demonstration from experience what the consequences of the opposite could be, pushed Botswana's officials to begin prospecting for various types of information related to the country's HIV/AIDS problems.

As regards an organizational learning explanation, whether willingly, by coercion, or some other combination, Botswana developed procedures and techniques for prospecting and analyzing information. Obtaining information is the first and *sine qua non* condition for organizational learning. Officials in NACA receive quarterly updates including (but not limited to) such indicators as: the number of people tested, new infections, PMTCT participants, persons on ARV, and orphans registered and receiving assistance. These data are then provided to the National Council, to the ministries, to NGOs/CSOs, and to other stakeholders and funders like ACHAP. In this way, there is a fairly contemporary picture of the national situation with respect to HIV at any time. This allows officials (and others) to draw conclusions about the effects, positive or negative, of policy interventions, whether medical or behavioral, treatment-based or preventative. Not only is the capability available, but all indications are that it is used, and that Botswana is a world leader at implementing "evidence-based" policies that are also appropriate to local circumstances.

14.2 Organizational Arrangement

As I proposed in Chapter I, where the arrangement of the organization facilitates two-way flows of information (at least in a network or hierarchy), we should see localized initiatives, innovation transfers, and greater programmatic output, especially with respect to programs that rely on distributed leadership — like school education units, peer educator counseling workshops, or behavioral accountability partners/micro-networks.

But if there is "too much" hierarchical control, we would expect developed and implemented programs at the national level but a fairly constrained set of programs, not extending much beyond mandate, as we process down the levels of government. Two primary reasons cause this, the theory predicts: first, the highest authorities in a hierarchical system are reluctant to allow activities that they do not authorize; second, without much autonomy, lower-level authorities do not have sufficient exercise of their own authority and experience

to motivate them to “buy-in” — if it seems less likely that higher authorities will hearken to the conclusion that locals draw from their own experience (i.e., what locals learn about the effects of context on a standard program), locals are more likely to do only what is denotatively required and not more.

Similarly, the “market” organizational model can cause problems when it becomes dominant, and we would expect a lower programmatic output overall. In such an organization, information can be quite easy to pass around; under a perfectly operating market, of course, all actors have perfect information with respect to one another. Without some units to exercise formal authority over each other or some commonly shared motivator, however, there is no coordination of efforts. In a political system, lacking profit as motive, actors do not necessarily have a common goal. Without something to provide focus and offer rewards for effort, the policy system can grow chaotic in direction and output. The lack of a fixed incentive like profit leads in a marketized organizational system to duplication of efforts or to policy paralysis as conflicting efforts cancel one another out. If some form of fixed reward can be offered, whether that is an element of the Thucydidean trinity of power, profit, or prestige, or whether some other accruing resource, the market could be made to work. In policy creation and implementation, this is harder to find or define than when playing stocks.

When examining the basic arrangement of the Botswana response, one may be forgiven for difficulty in discerning the form of organizational arrangements. In Figure 3, there appears to be a network with NACA as its primary hub. There is some degree of hierarchical control, as the National AIDS Council officially supervises the work of NACA,⁴³ and the national government provides support and supervision of the district and local multi-sectoral AIDS committees.

However, in Figure 4, the arrangement of response units is a great deal more chaotic. Although the figure could perhaps use better graphic design, a basic problem still remains: every unit is in information contact with so many other units that policy coordination and direction in such a system would be relatively difficult. The only authority in this system is the nominal authority of the National Council, which is meant to be a high-level decision-making body and lacks the resources to consider, evaluate, and sift through every bit

⁴³“Botswana is among the 19 African countries that have established a National AIDS Council chaired by the head of state to take responsibility for a multi-sectoral response to AIDS. The National AIDS Coordinating Agency provides technical support to the National AIDS Council and coordinates the national health sector response. Activities are guided by a National AIDS Policy and the National Strategic Framework for HIV/AIDS for 2003–2009, which was developed to foster an expanded multi-sectoral response.” See World Health Organization (2005).

of information that may exist in this system. The management style here is “flat”; as such, it may facilitate the flow of information and new ideas, but it lacks filters and decision-makers.

Five years passed between the presentations of the two views of the national HIV structure shown here. The more complicated one (Figure 4) comes from the framework document outlining the country’s planned strategy for fighting HIV/AIDS in the period 2003–2009. The National Strategic Framework represents both the state of anti-HIV efforts in 2003 and the directions planned for those efforts in the future, and the national HIV structure diagram is similarly a representation of present and future. According to mid- and high-level individuals interviewed during and after AIDS 2008, the schematic in Figure 3 represents the government’s current understanding and practice, especially as regards the role of NACA. Molomo (2008) especially emphasized the role of NACA as coordinator of efforts, but — in descriptions of the way that various stakeholders and government agencies interacted with NACA — other interviewees (generally) backed up this assessment.⁴⁴

In either case — whether the organizational arrangements became simplified over time or that the later diagram is a presentational simplification — the response structure also had to contend with another difficulty. In the early 2000s, some of the effectiveness that the response might have had was lost due to having two focus points for action: NACA, which was entirely a government response, and ACHAP, which was a public-private partnership with the government as half of the whole entity.

Both in the research of Ramiah and Reich (2005, 2006) and in interviews of individuals working with or in NACA, it appears that the tension between NACA/the government and ACHAP contributed to a diffusion of efforts. As one informant said, ACHAP was making its own interpretations of policy advice from UNAIDS and operating “pretty much in parallel” with NACA (the government). “[ACHAP] were quietly the people putting the [anti-retroviral therapy] policy together.”

The uncertainty that having two centers of policy discussion and coordination fostered led to a greater share of the available but finite resources of time, expense, and effort being used to figure out who to talk to and what was going on than if there had been a more clear center. Importantly, one sees the manifestation of this cost in two sets of facts. First, much of the first two year’s of ACHAP’s

⁴⁴Most notably, science journalist Jon Cohen argued the opposite — that NACA was not particularly important in understanding the Botswanan AIDS response; he thinks that it can largely be explained through the personal action of President Mogae. Future research is indicated on this point to settle the matter more definitively.

existence were devoted to sorting out the relationship between the partnership and the government and which entities would be involved in what decision-making. Second, once these issues were sorted out in 2004, the pace of work coming from the government, either via NACA or from President Mogae, did increase. For example, from 2004 onward — with the advent of the RHT program and the step-up of ARV therapy distribution — the government (by itself or in partnership) accomplishes more than in the previous period. While there should be hesitation to infer that the costs of uncertainty are the sole cause for this change, the coincidence of timing, as well as the judgment of informants, provides evidence for the theory's assertion that the structural relationship of the involved organizations affected outcomes.

15 Botswana Conclusion

The case of Botswana proves more difficult than that of Mexico as we trace the roles that organizational learning processes and structural effects on learning played. Primary among the reasons for this analytic challenge may be in the difference between the two different epidemics that the countries face — Botswana's encompasses a greater swath of the population and a more varied population than does Mexico's, and this has necessitated the African nation's "multi-sectoral" approach. This difference, however, does not prevaricate the attempt to compare. As indicated in previous chapters, both theory and empirical research have indicated that organizational dynamics and learning will operate in some fashion whether the organizational configurations are larger or smaller; they quite likely will not be identical, but they will be sufficiently similar as to allow evaluation and discussion.

As compared to Mexico, the performance of Botswana's HIV/AIDS organizational response, especially with respect to learning, has been less impressive and less fruitful in its results. In some sense, until perhaps the middle of this decade, Botswana has seemed determined to not learn from its own past or that of others: it ignored the presence of HIV in the country longer than other sub-Saharan African countries did, it did not adapt initial programs to its local circumstances, and these programs often did not have feedback (M&E) systems for continuing assessment. Even once the government and its partners set up tailored programs and information collection, the structural configuration of the actors involved appears to have blunted the policy efficacy and output, such that authoritative intervention by President Mogae himself was required to resolve differences and force decisions.

Many of these organizational learning hindrances now seem to have been solved (or at least ameliorated), insofar as treatment and

some prevention programs are concerned. Of all countries in sub-Saharan Africa and those similarly affected globally, Botswana is regarded as a leader in addressing the treatment of a huge and highly affected population. Just as the country has gotten on track and addressed the organizational pathologies that prevented greater success in the past, however, its situation has changed. President Mogae has retired and can no longer serve as an organizational mediator and deal-broker; the country's efforts must now be turned toward prevention efforts to bring down the high HIV prevalence and incidence that it has faced for years. Assuming that the problems of prevention can be fixed, it is unclear whether the government of Botswana has learned how to learn from its past. At this point, only more time will tell.

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