TRANSLATING HEALTH RESEARCH TO ACTION

A Toolkit for the Caribbean

February 2008

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Acronyms

AIDS	=	Acquired Immune Deficiency Syndrome	**IWH**	=	Institute for Work and Health (Canada)
CAREC	=	Caribbean Epidemiology Centre	**KM**	=	Knowledge Management
CARICOM	=	Caribbean Community	**KT**	=	Knowledge Transfer
CARIMAC	=	Caribbean Institute for Media and Communication	**MOH**	=	Ministry of Health
CD	=	Compact Disc	**NGO**	=	Non-governmental Organization
CFNI	=	Caribbean Food and Nutrition Institute	**OECS**	=	Organisation of Eastern Caribbean States
CHART	=	Caribbean HIV/AIDS Regional Training Network	**PAHO**	=	Pan American Health Organization
CHRC	=	Caribbean Health Research Council	**PANCAP**	=	Pan Caribbean Partnership on HIV/AIDS
COHRED	=	Council on Health Research for Development	**PDF**	=	Portable Document Format
CoP	=	Community of Practice	**UKOTs**	=	United Kingdom Overseas Territories
CTP	=	Collaborative Training Program	**UN**	=	United Nations
ENHR	=	Essential National Health Research	**UWI**	=	University of the West Indies
EVIPNet	=	Evidence-informed Policy Network	**VHL**	=	Virtual Health Library
HIV	=	Human Immunodeficiency Virus			
ICT	=	Information and Communication Technology			
IT	=	Information Technolgy			

Health is dynamic. As such, health programming and policy making must also be dynamic. In order to maximize health and development outcomes in the Caribbean, our actions must be informed by different types of evidence. Research has a clear role to play; however, we often struggle with how to incorporate research evidence into our health decision making.

The *research-practice gap* is the divide between what we know via research and what we do. Why does it exist? Global experience suggests that some researchers do not see themselves responsible, nor do they feel they have the skills, for dissemination and 'translation' of research. In addition, many policy makers and practitioners do not regard the synthesis, interpretation, and/or dissemination of research as their responsibility (Schecter and Brunner 2005). However, all health stakeholders have a role to play in the translation of research findings to practice.

Narrowing the research-practice gap entails more than just dissemination of research findings; it involves a number of processes that bring about a cultural shift in how we perceive research and its place in our decision making. There must be an enabling environment for evidence-informed action. As a result, financial, organizational, human resource, and political constraints must be addressed.

In moving towards effective translation of research to practice in the Caribbean, we should address minimum requirements such as the following:

1. Defined and agreed-upon health research agendas in countries and the Region as a whole
2. Formalized relationships between generators of research evidence and potential users of research evidence
3. Resources (both human and financial) for knowledge management
4. Systematic tools, approaches, and processes for communicating, considering, and applying research evidence

An entire field is evolving to facilitate the translation of evidence (including but not limited to research findings) to action. Buzzwords such as "knowledge transfer", "knowledge sharing", and "knowledge management" are widely used, but do they all mean the same thing?

KNOWLEDGE SHARING = Any activity that aims to share knowledge and expertise among researchers, policymakers, service providers, and other stakeholders to promote evidence-based practice and decision making (The Community-University Partnership for the Study of Youth, Children and Families 2006)

KNOWLEDGE TRANSFER = A specific process designed to create and facilitate the exchange of meaningful information generated from health research. The exchange of information informs decision-making at all levels of the healthcare system, from clinical decisions to government policy decisions. (Nova Scotia Research Foundation 2006)

Some individuals perceive the term "transfer" or "sharing" as a one-off activity. For many of us, knowledge transfer or sharing involves little more than distributing a technical report or organizing a seminar or meeting to disseminate research findings. However, research translation needs to be more dynamic and on-going.

It is important to note that knowledge transfer and knowledge sharing are predicated upon the availability of evidence. In the Caribbean, we need to adopt an approach that not only addresses the exchange of information, but the way we generate and access information in response to our information needs. The term, *"knowledge management"*, implies a more comprehensive and iterative approach that entails:

1. identifying health-related information needs that can be filled by research
2. generating and/or capturing data to fill information gaps
3. disseminating research findings appropriately
4. systematically examining and synthesizing evidence to create an accessible knowledge base for health action
5. ensuring/facilitating the use of research evidence in health decision making
6. determining what constitutes successful translation of research to practice

<u>Understanding the Roles of Different Stakeholders in Knowledge Management</u>

Traditionally, when people think about translating research to action, they identify two main groups:

(1) individuals involved in producing (collecting, acquiring, analyzing) research evidence

(2) end users of research evidence (e.g., health decision makers, health care providers, other health service implementers [e.g., NGOs], research community, general public).

Researchers, who play a pivotal role in generating and analyzing data for health decision making, have a responsibility to a) consult end users when designing and implementing research studies (not just when disseminating research findings), as well as b) 'package' research evidence in a manner that maximizes access, correct interpretation, and use by different stakeholders.

End users, in turn, have a responsibility to a) communicate their information needs to researchers, b) support and provide input into research processes, and c) accommodate the review of research evidence in their health planning and program processes.

In reality, however, factors such as the following often reduce the likelihood that the two stakeholder groups fulfill their respective roles: time, capacity (e.g., analytical skills, communication skills, strategic planning skills), resources (human and financial), the political environment, and competing stakeholder interests.

Effective knowledge management usually requires intermediaries who: 1) understand the perspectives and "languages" of both producers of research evidence and end users of research; and 2) can play a facilitative role in creating an enabling environment for the timely production and use of research evidence. These intermediaries are often referred to as "knowledge brokers", and they have a central role to play in the translation of research to action in the Caribbean.

What qualifies a person or entity as a knowledge broker? The following are some basic criteria:

- Has credibility with the research community and potential end users of research, and interfaces with both groups
- Understands public health and the socio-political environment in which health issues must be addressed
- Has the capacity to assess the quality of research and interpret findings
- Has the capacity to communicate research findings to both technical and lay audiences

Although CHRC is best placed to perform such a role, other entities such as the following that can support specific aspects of knowledge management:

- Regional institutions (e.g., CAREC, CFNI, UWI)
- Local media
- Donor agencies/development partners

RECOMMENDED ROLE OF KNOWLEDGE BROKERS IN THE CARIBBEAN:

Caribbean **regional institutions**, which often interface with both researchers and health decision makers (e.g., policy makers, technical advisers), can facilitate knowledge management in a number of ways. For example, the following communication and networking mechanisms used by those institutions can support knowledge management:

- *Newsletters and other communication materials*: by providing a synthesis of existing evidence on particular health issues
- *Annual meetings*: by including structured sessions for the exchange, synthesis, and interpretation of information AND consensus on its application
- *Web sites*: by using information and communication technology to warehouse, query, and direct stakeholders to research evidence on issues that are within their organizational mandates

In addition to regional institutions, the **media** can act as a knowledge broker, particularly in translating scientific findings for the general public.

Donor agencies and development partners can also support knowledge management by: a) financing research that is aligned with national and regional health research agendas; b) funding knowledge management capacity building and mechanisms that bridge the divide between producers and end users of research; and c) requiring budget allocations for tailored dissemination to health decision makers—not just report writing—when funding health-related research in the Caribbean.

Purpose of this Toolkit

Many knowledge brokers in the Caribbean understand that they have a potential role to play in translating research to action. However, they lack insight regarding how they can systematically support knowledge management to improve health in the Caribbean. The present toolkit discusses practical considerations, strategies, and tools that can be used by knowledge brokers in their efforts.

A number of international knowledge transfer and knowledge management resources (e.g., compendia, tools) already exist. This toolkit builds on the global experience and resources in knowledge management and knowledge transfer, and it attempts to contextualize them for the Caribbean. Knowledge management is an ever-evolving field; there is no tried and true approach. A number of theories have emerged regarding knowledge management; however, they are not discussed in this document, which focuses less on the WHAT, and more on the HOW TO of knowledge management.

Organization of the Toolkit

The first two modules of this toolkit provide general discussions of research for health and issues related to the research-practice gap in the Caribbean. In recognition of the fact that there are multiple starting points along the continuum from research to action, the third module outlines key considerations, depending on whether you are involved in the design of a single research project versus attempting to integrate existing research evidence into health policies and programs. The remainder of the toolkit describes various options to facilitate timely and effective communication between stakeholders in order to narrow the research-practice gap. A list of additional resources appears towards the end of the toolkit, and the Annexes include selected tools and checklists to assist toolkit users in thinking through key steps along the pathway from research to action.

MODULE OVERVIEW:

This module describes various types of research evidence for health.

The Importance of Research for Health

Research evidence has a vital role to play in health programs and policy making, providing insight in terms of:

- **problem identification/description, e.g.,**
  - Definition of the scope and targets of policies and programs
  - Mobilization, allocation, and/or re-allocation of financial and other resources based on health priorities
    - Potential research evidence can be gleaned from epidemiological research, descriptive studies (both quantitative and qualitative)

- **effectiveness, implementation, e.g.,**
  - Formulation of health education and behavior change strategies
    - Potential research evidence can be gleaned from program evaluations, operations research, clinical trials

- **normative, practical-operational, e.g.,**
  - Revision of technical guidelines and/or protocols
  - Development of job aids that reflect state-of-the-art thinking based on research and other evidence
  - Development/revision of training curricula and/or other capacity-building efforts targeting health providers and health service implementers
    - Potential research evidence can be gleaned from operations research (generating both qualitative and quantitative data)

The term "evaluation" is a major buzzword in public health. We often forget, however, that evaluation is a form of research. Evaluations should be viewed as much more than donor requirements; they can produce local evidence on what works and what should be pursued in the future to improve the health status of Caribbean people. As a result, there

is a place for research as a solid component of monitoring and evaluation (M&E) systems, playing a role in documenting baseline levels and evaluating the effectiveness, quality, and impact of interventions or programs.

What Constitutes Research Evidence?

The Caribbean has a long-standing history of making research contributions to the global knowledge base on health. However, the Region does not have systematic means of producing, accessing, interpreting, and applying research evidence to our local health problems.

Research evidence is often found in sources such as the following:

- "Grey" literature (e.g., technical reports, conference proceedings)
- Peer-review journals (Regional and international)
- Databases owned or managed by various agencies and institutions
- Web sites

However, we need to explore more dynamic means of knowledge sharing that facilitate timely and efficient use of research in our efforts to improve health.

When thinking about knowledge management, it is important to acknowledge that stakeholders differ in terms of the value they place on various types of evidence. For example, the research community tends to regard "knowledge" as scientific evidence, whereas policy makers, and to a lesser extent, health practitioners and program implementers, are more inclined to give greater credence to experiential or "colloquial" knowledge (Neilson 2001). This is certainly true in the Caribbean, where policy makers often rely on their personal experiences or anecdotal information from individuals they deem credible.

It is difficult to adopt a strict hierarchy of evidence, placing one type over the other. However, we need to strike a balance between scientific and colloquial evidence. Scientific evidence provides insight into what might "work", whereas colloquial evidence provides insight into what might make sense in operational terms. The two should not be regarded as diametrically opposed. We should also keep in mind that stakeholders often give colloquial evidence more prominence when they:

a.) do not have enough scientific evidence (or have limited access to it)

b.) do not know how to interpret and/or apply available scientific evidence

Involving researchers in decision making processes can help to ensure that research evidence is given due consideration (as opposed to skewed discussion of colloquial evidence).

Simply increasing the availability of scientific evidence is not enough. As shown in Table 1, perspectives can differ widely in terms of the usefulness of scientific data from different methods and data sources. Generally speaking, health decision makers and practitioners tend to favor evidence that is largely generalizable, whereas civil society organizations and the populations they serve are usually keen on evidence that reflects on-the-ground realities of their local context.

Table 1—Major Methods of Capturing Scientific Data, and Their Perceived Utility for Decision Making

UNIT OF INTEREST	DATA CAPTURE METHOD	LIKELY USEFULNESSS		
		For Policy Makers & Program Planners	*For Health Professionals/ Program Implementers*	*For Communities*
Entire population	• Census • Vital statistics	Very high	High	Moderate
Statistically representative sample of the population	• Ad-hoc, cross-sectional survey • Longitudinal/Cohort methods	Very high	High	Moderate
Purposive sample of the population	• Participatory appraisals • Ethnographic techniques (e.g., focus group discussions, key informant interviews, pile sorts)	Moderate	High	Very high

(Adapted from Porter & Prysor-Jones 2007)

Stakeholders also vary in terms of their perceptions of quantitative versus qualitative evidence.

The Quantitative-Qualitative Conundrum

Whenever there is mention of scientific evidence, many people are quick to assume that the data and information must be quantitative, not qualitative. However, both types of scientific evidence have a place in our health decision making. Some stakeholders have very clear preferences. Some individuals may feel more comfortable using information that is quantifiable. Others believe that mere numbers do not provide a complete representation of reality, and rely heavily on qualitative information. However, we must be careful about letting the pendulum swing too far in either direction.

Some important points about quantitative and qualitative data:

✓ Never attempt to quantify data generated through qualitative techniques.

✓ Qualitative data should not be generalized to the country as a whole; the hallmark of qualitative investigations is in-depth information gathering pertaining to a very specific segment of the population.

✓ All quantitative data are not generalizable. The manner in which quantitative data are collected has a huge bearing on the extent to which findings can be generalized.

✓ Be cautious about over-interpreting quantitative data. Do not assume the reasons why certain phenomena were observed in a quantitative study. It is prudent to either conduct a follow-on qualitative investigation or a more in-depth quantitative investigation.

An increasing number of studies are relying on hybrid methodologies, utilizing both quantitative and qualitative analytical techniques.

When developing policies and programs, quantitative evidence generated through sound scientific methods can assist stakeholders in highlighting issues such as the following:

- Epidemiological burden of disease
- Coverage gains and gaps
- Objectively verifiable aspects of quality of care
- Intervention or therapy effectiveness and/or impact

Sound qualitative evidence is more subjective. As a result, it is most valuable in highlighting issues such as the following:

- Perceptions of clients/beneficiaries
- Perceptions of service providers
- Barriers to access
- Quality of life issues
- Socio-cultural determinants of health
- The context for and feasibility of policy and program changes being considered

In the sum, quantitative evidence is best used to shed light on WHAT and/or HOW MUCH, whereas qualitative evidence is best used to shed light on HOW and/or WHY.

MODULE OVERVIEW:

This module provides background information on issues related to health policy making and programming, as well as the research-practice gap in the Caribbean. It sets the stage for subsequent modules that address operational aspects of knowledge management in the Region.

Health Decision making in the Caribbean

There are various health decision-making entities in the Caribbean, for example:

At the country level:
- ✓ Minister of Health
- ✓ Chief Medical Officer
- ✓ Chief Financial Officer
- ✓ Health Planner

At the regional level:
- ✓ CARICOM Health Desk
- ✓ COHSOD
- ✓ Disease-specific entities such as PANCAP

In addition to the above entities, there are health technical experts—usually based within Ministries of Health—who often play an advisory function in policy and planning processes.

The following are key questions that health decision makers must often consider:

- What are the priority health issues in the country? In the Region?
- What strategies or interventions can we feasibly implement in order to achieve our health and development goals, and how should we allocate our limited resources accordingly?
- What human, financial and infrastructural resources might be required?
- What are the core standards/protocols for the delivery of specific health services?
- What strategies and programs should be brought to scale?

The Nature of the Research-Practice Gap in the Caribbean

Most health stakeholders in the Caribbean recognize the theoretical role of research in health decision making, so why is there a gap between research and practice in the Region? Decision making does not occur in a vacuum. There are issues of political feasibility and legitimacy, as well as the need to balance various stakeholder interests. The following are additional reasons why the gap exists:

- Access to research evidence is not systematic or widespread.
- Resources and incentives are rarely available for knowledge management activities beyond preparation of a research report.
- Researchers and decision makers often do not speak the same 'language'. There may also be a gap between the type of research needed to inform health decision-making in the Region, and the type of research being conducted.
- Knowledge sharing is perceived by many to be a one-off thing (e.g., a single dissemination workshop), rather than an iterative, participatory process.
- There are few provisions within planning and policy-making processes for systematic review of evidence. More broadly, governments generally lack the capacity to assess the research studies and options presented to them.
- Research is low on hierarchy of factors that influence decision making.
- Dissemination of research literature is less than optimal.
- Engagement of individuals and/or entities that can act as knowledge brokers (facilitators of knowledge sharing) is limited.
- Human resource constraints make it unfeasible to devote a high level of effort to knowledge management

The above factors are not specific to the chasm that exists between research and practice. They also apply to other types of evidence for health such as surveillance and program monitoring data. In attempting to systematically narrow the research-practice gap, it is important to build on lessons learned within the Region. As noted in Table 2, previous research experiences within the Region have underscored some very important points related to translating research to action.

Table 2—Important Lessons Learned with Respect to Translating Research in the Caribbean

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'Collaborative research' is key.
- ✓ <u>What has 'worked' in the Caribbean:</u> Successful translation resulted when there were strong linkages between academic researchers and MOH bureaucrats and technocrats. There was on-going dialogue between researchers and policy makers in the planning and execution of research activities, with strong leadership from MOH technical staff in research processes.

Good interpersonal relations have an impact.
- ✓ <u>What has 'worked' in the Caribbean:</u> Researchers, and to a lesser extent, health decision makers, have relied on personal relationships with their colleagues throughout the Region to share research information, evidence, and experiences. Translating research to action has involved some creativity and skill in seizing available opportunities to interface with health decision makers on an ad-hoc basis.

Credibility/reputation counts.
- ✓ <u>What has 'worked' in the Caribbean:</u> Successful research translation often occurred when the research in question was conducted by a reputable and recognized researcher/research team. If the researcher was considered to be highly qualified/reputable, there was a tendency to give credence to his/her research findings.

Packaging is important.
- ✓ <u>What has 'worked' in the Caribbean:</u> Government officials had access to research findings that were expressed in policy language, not just a scientific format.

Know your environment.
- ✓ <u>What has 'worked' in the Caribbean:</u> Researchers acknowledged and responded to issues of political feasibility and acceptability when addressing research topics/problems.

Funding plays a facilitative role.
- ✓ <u>What has 'worked' in the Caribbean:</u> Success in translating research to action has often resulted when the research study was well-funded, and resources were allocated to knowledge translation.

Institutionalize the research-policy link.
- ✓ <u>What has 'worked' in the Caribbean:</u> Relationships between stakeholders that are formalized and 'institutionalized' through Essential National Research strategies and structures bode well in terms of sustainable knowledge management.

<u>**SOURCES:**</u> Ashley 2008 (personal communication); CHRC 2007; Gordon-Strachan et al. 2006 ; Henry-Lee 2001

MODULE OVERVIEW:

There are various starting points along the continuum from research to action. This module discusses general approaches when designing a single research project versus attempting to integrate existing research evidence into policy and program processes.

As a knowledge broker, it is important to act strategically based on your local environment. In general, you have four points of influence:

a) How research activities are planned
b) How research evidence is integrated into existing planning processes
c) How research evidence is used to spark policy dialogue
d) How stakeholders access, share, and interpret research evidence on an on-going basis

Influencing any of the above dimensions will require an understanding of and appreciation for *deliberative processes*.

The Concept of Deliberative Process

The intent behind a deliberative process is to fully engage relevant stakeholders and ensure "buy in" regarding the current situation, the gaps, and the actions. A deliberative process:

- Is participatory in nature, soliciting input from a diversity of stakeholders and experts
- Brings different types of evidence from different sources together
- Allows for the determination of quality and relevance of evidence in a transparent manner

(Lomas et al. 2005)

We should not confuse a deliberative process with a consultative process. Consultation is not the same as participation. There have been countless instances when large numbers of individuals have been consulted (e.g., invited to a meeting, sent a document for review), but very few have truly participated.

Table 3 outlines conditions that should be in place when embarking on a deliberative process.

Table 3—Conditions for Which a Deliberative Process Makes Sense

Taken from Culyer 2005, Deliberative processes and evidence-informed decision-making in health care. Paper presented at Health Services Restructuring: New Evidence and New Directions, 17–18 November 2005.

(Available at: http://jdi.econ.queensu.ca/Files/Conferences/HealthServicesconferencepapers/Culyer_paper.pdf)

Participation
- ✓ Evidence from more than one expert discipline is involved.
- ✓ Evidence from more than one profession is involved.
- ✓ Stakeholders have conflicting interests.
- ✓ There are technical disputes to resolve.
- ✓ Evidence may be scientifically controversial.
- ✓ Evidence gathered in one context is to be applied in another.

Involvement of wider social and cultural issues
- ✓ Issues of outcome, benefits, and costs that go beyond conventional boundaries.
- ✓ Substantial uncertainty about key values and risks that needs to be assessed and weighed.
- ✓ There are other social and personal values not taken into scientific account.
- ✓ There are issues of equity and fairness.
- ✓ There are issues of implementability and operational feasibility.
- ✓ Wide public and professional 'ownership' is desired.
- ✓ There is doubt about feasibility and implementability.

While the aim is to be inclusive and participatory, you should keep in mind that a deliberative process can easily become unwieldy. The verdict is still pending in terms of best practices with respect to deliberative processes. However, the following are key tasks to pursue when you are facilitating a deliberative process:

1. Map out who should participate in the process (e.g., health planner, Chief Medical Officer, Chair of a research steering committee, technical experts, service providers/program implementers, civil society organizations [as appropriate], beneficiaries [as appropriate]), and assemble a consensus panel, which should be no larger than 10 participants representing different stakeholder interests.

2. Develop clear inclusion/exclusion criteria for evidence that will be considered (types of evidence, time frames/reference periods for the studies conducted)

3. Engage a facilitator for the deliberative process. A suitable candidate should possess some of the traits of a knowledge broker **(as noted on page 8)**.

4. Employ a mix of in-person activities (e.g., meetings) for approaches such as the Nominal Group Technique versus virtual activities (e.g., via e-mail) for approaches such as the Delphi Method

A.   Participants in a Deliberative Process

The dynamics within the consensus panel is absolutely critical. The diagram on the following page (*Figure 1*) will help in mapping out the key players in local health decision-making processes.

Figure 1.
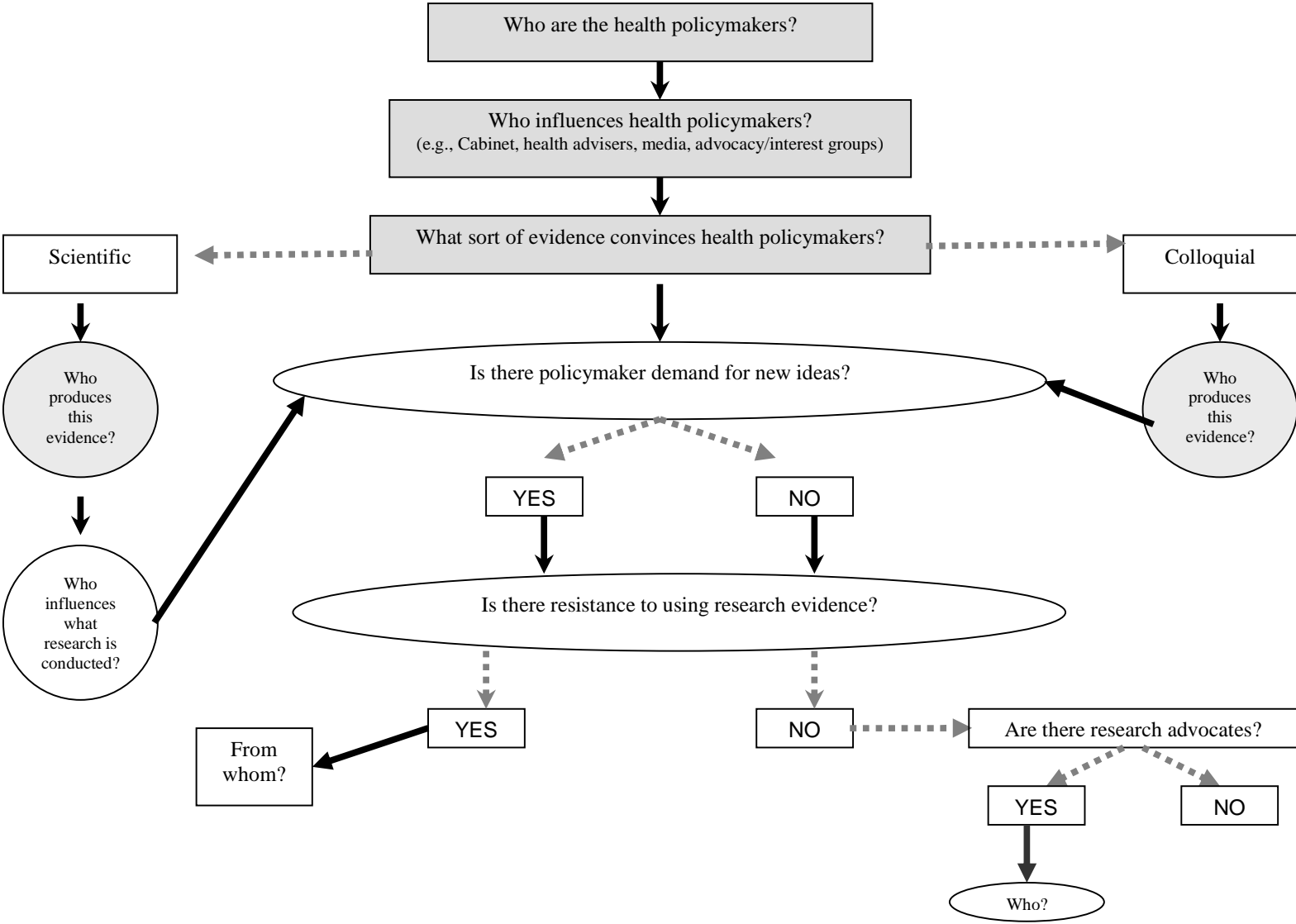
You will likely find countless individuals who can potentially be involved in a deliberative process. In narrowing down the long list of players, attempt to categorize stakeholders based on their degree of "power" and "potential interest" (*Figure 2*). **Power** relates to the ability to influence health and development policies and programs. That influence may be technical, administrative, financial, etc. **Potential interest** relates to a) the relevance of research to the individual's (or entity's) work and b) receptivity of that individual/entity to using research evidence in their work.

Figure 2.

		Low	High
POWER[1]	**High**	Keep satisfied	Engage closely and influence actively
	Low	Monitor (minimum effort)	Keep informed

POTENTIAL INTEREST[2]

Adapted from Overseas Development Institute (Start & Hovland 2004)

The above classification system should not be used as justification to focus <u>solely</u> on one set of stakeholders, at the expense of others. While you will need to get creative in terms of how you can directly engage stakeholders that have both a high degree of power and a high degree of interest, you may have to take a less "top-down" approach. On the surface, many powerbrokers have little or no interest in using research to inform their decision making. However, there are players who influence and/or advise policy makers, who also need to be engaged. *(Refer back to the shaded boxes in Figure 2.)* In order to engage those individuals, you will need to approach deliberation in an on-going and iterative manner, rather than as a one-off activity. Later modules of this toolkit address options for engaging various stakeholders in different ways and at different stages along the continuum from research to action.

B. Making a Process Deliberative

A deliberative process is not a special, standalone activity. Instead, as a knowledge broker, you should strive to make existing planning processes (e.g., the development of a new five-year strategic plan, national health policy, or health technical guidelines) as deliberative as possible.

How you structure a deliberative process will depend upon your circumstances and people who need to be engaged in the process. We often work under major time constraints, so you will need to give thought to the most efficient and effective means of communicating research findings and achieving consensus. Resources will need to be available to support materials development and stakeholder communications. The following are examples of how you can make planning processes more deliberative:

✓ Develop briefing materials that can be disseminated to individuals who will be involved in the planning process. The materials should orient individuals on the relevant research evidence and the issues being addressed as part of the planning process (Do <u>not</u> assume that individuals have the capacity to synthesize information and align the research evidence with the health issues or problems they are trying to address.).

✓ Utilize face-to-face interaction as an opportunity to personalize research evidence. For example, you can engage civil-society organizations or program beneficiaries (when appropriate) to serve as real-life case studies that corroborate the research evidence. Be aware that stakeholders may have limited time for in-person activities such as meetings, so it is important to use those opportunities creatively to facilitate dialogue regarding existing evidence and the way forward in light of that evidence.

✓ Achieve consensus through methods such as the Delphi technique. Be sensitive to the fact that certain stakeholders may not feel comfortable being vocal in the presence of other stakeholders (e.g., high-level bureaucrats). You may need to support a series of consensus-building activities among very-defined stakeholder groups. Remember to document all decisions made by different stakeholder groups.

Later sections of this toolkit discuss the concept of "Communities of Practice", and tools and approaches that can facilitate transparency, sharing, and collaboration on an on-going basis.

Recommendation for the Caribbean:

In the Caribbean, we need to explore ways of institutionalizing deliberative processes. An Essential National Health Research (ENHR) Council can create the structure for on-going dialogue between researchers and health decision makers.

Knowledge Management Issues When Planning Research

As noted by Porter and Prysor-Jones (2007), the credibility of the research process affects the likelihood that research findings will be used. When designing a research project, there should be dialogue regarding:

1. Priority information needs among decision makers
2. In what format(s) and within what time frame decision makers need evidence to be 'packaged'
3. The specific research questions and/or scope of the research being conducted

As a knowledge broker, you will need to promote a spirit of collaboration between bureaucrats, technocrats, and researchers. Table 4 describes research conducted in Jamaica on the effect of user fees on access to preventive health care (Gordon-Strachan et al. 2006), which illustrates the importance of collaborative research.

Table 4—Case Study on Research Pertaining to User Fees in Jamaica

NOTABLE ASPECTS OF THE STUDY:

- The research team consisted of both university researchers and technical experts from the Ministry of Health (MOH).

- The research team considered the perspectives of health policy implementers from the very inception of the research project:
  - Researchers and policy makers worked together in a) identifying the research issue and b) formulating the research questions.

  - A very systematic and deliberate approach was taken to engage decision makers. Communications during the research process were both formal and informal. The research team developed a protocol for interacting with policy makers throughout the research process, which facilitated a) the buy-in of policy makers in the study and b) the diffusion of research findings.

  - Initial consultations were done via key informant interviews with health policy makers and health service implementers. The research team developed a standard questionnaire and supporting documentation for the interview process. Interviews were approached as a means of a) emphasizing the value of policy maker input in the research process and b) seeking answers to the following general questions:
    - Was a study necessary to address the user-fee issue?
    - What information is useful to the policy makers?
    - What should be the focus of the study?
    - What methodology should the research team use?
    - What other issues need to be considered?

- The research protocol included the comments from health policy makers and service implementers.

- The research team acknowledged challenges in gaining access to key policy makers. The importance of interpersonal influence cannot be overstated. Communication approach, communication 'agents' (e.g., MOH staff) and the choice of language in communications were key in maintaining contact with policy makers.

- The study investigators identified the following as factors that helped to bridge the research-policy gap in this particular case study:
  - Research team selection
  - Setting the frame of reference (e.g., by consulting policy makers regarding their needs) before embarking on the research
  - Communication strategies to engage policy makers
  - Timing of the issue/readiness of the social environment
  - Mutual trust and commitment

In addition to the approach taken in the above case study, other ways to engage health stakeholders may include:

- ✓ jointly choosing study sites and field personnel
- ✓ training local health staff to play a role in data collection (as appropriate)
- ✓ developing data collection instruments
- ✓ sensitizing the general public (or target study populations) in advance of the study
- ✓ holding feedback sessions/meetings for joint interpretation of preliminary results and formulation of recommendations

When defining research questions, support dialogue around the following questions to ensure that the planned research responds to local needs (adapted from Porter & Prysor-Jones 2007):

- What are the priority health problems/issues?
- What are the origins or causes of those problems?
- How serious is the problem, what are its consequences?
  - How widespread is the problem?
  - Is it getting better or worse?
- What populations or groups are most affected?
- What socio-cultural and/or economic factors are affecting health efforts?
- What is being done to solve the problem?
  - Are solutions (really) being implemented?
  - What are the obstacles and constraints to implementing effective interventions?
  - What impact are they having?
- Are alternative or competing solutions/interventions under consideration?
- What evidence already exists related to the above questions?

Recommendation for the Caribbean:

Many of the above questions are the same ones that are considered when defining a health research agenda. It therefore makes sense to establish a health research agenda, which in turn, can be used to a) determine research priorities –AND– b) how existing research evidence (both Caribbean and global) is applied to local health decision making.

In the preliminary stages of a research activity, it is also important to consider the format in which policy makers need information, and factor that into the dissemination strategy developed for the study. Dissemination options are discussed later in the toolkit; however, as a knowledge broker, you can help stakeholders agree to a specific timeline and format for feedback based on their planning and decision making needs. For example, a study may consist of different phases or components, and research studies are often characterized by long time lags between when the study is initially designed and when study findings are finally disseminated. Stakeholders could agree to a phased dissemination strategy—if the research design allows for such a strategy—whereby the researchers can provide timely and on-going feedback throughout the research process.

Knowledge Management Issues When Synthesizing Research Evidence

Making sense of a collective body of evidence is easier said than done. Policy makers and health practitioners cannot be expected to understand the nuances of research, nor can they be expected to have the time or the resources to scan and interpret literature and other sources of research evidence on their own. Therefore, knowledge brokers can facilitate the review and synthesis of research evidence to make it more readily accessible (and interpretable) for decision makers. Table 5 highlights some important points to consider.

Table 5—Helpful Hints when Synthesizing Evidence

When attempting to synthesize research evidence:

✓ Determine whether the research studies are consistent. Map out the 'story' told by each type of evidence in terms of conclusions drawn regarding issues such as the following:
  → Viable implementation options
  → Target beneficiaries
  → Actual or expected effectiveness/impact
  → Cost benefit/cost effectiveness

✓ If findings are contradictory or inconsistent:
  → Are the differences programmatically meaningful? For example, assume that high values of a particular study indicator are favorable. Suppose Study A documented an indicator value of 13% and Study B documented an indicator value of 30%. Although we should strive to understand why the two studies documented vastly different levels of the same indicator, it is important to recognize that the take-home message is the same: the level of the indicators is far from optimal.
  → Were the study units similar (e.g., the similar geographic setting; similar population group)?
  → Were the study methods (e.g., sampling methodology) the same?
  → Is time a factor (e.g., conducted years apart; conducted at different times of the year [which might have affected study results]?
  → Is there a commonality in terms of study measures across studies (e.g., same indicators, tabulated in the same manner)?
  → Is credibility an issue? (e.g., What were the limitations, biases, and caveats associated with each study? What is the experience/expertise of the researchers?)

✓ Determine whether collective research evidence substantiates other types of evidence (e.g., other types of strategic information; anecdotal information).

Studies that can potentially inform our decision making should first be evaluated against a set of minimum criteria. For example, quality and relevance/appropriateness are two important domains to consider. The following are examples of criteria under each domain:

(A) Quality:
☐ The research question(s) is/are clearly defined.
☐ The study methodology is scientifically sound.
☐ Data/findings are presented in a format that is easily understood, with clear numerators and denominators (if applicable).
☐ Study limitations, caveats, and biases are addressed by the research investigators, and do not pose a significant threat to the validity and/or generalizability of the study's findings.
☐ The researchers/research team is highly experienced and reputable.
☐ The study was published in a widely-recognized peer-review journal *(If one assumes that the journal has rigorous quality standards then this criterion can be used as a proxy for 'quality' research).*

(B) Relevance/Appropriateness:
☐ The research addresses a specific aspect of the local health research agenda.
☐ The research findings reflect the present-day situation. (For example, consider how much time has elapsed since the data were collected, and whether conditions/aspects of the local environment have changed.)
☐ The study findings are generalizable to the local context (This is particularly salient if you are evaluating research conducted outside of the Caribbean, or attempting to apply research evidence from one Caribbean country to another. Consider aspects of the study such as characteristics of the study population.)
☐ There is a logical link between the research findings and the conclusions/recommendations formulated by the researcher(s).
☐ The conclusions and recommendations make sense in the Caribbean context.

It will be important to assemble a review panel comprising research experts from different disciplines who can evaluate research for health according to the agreed-upon criteria.

Using Research as the Catalyst for Policy Dialogue
Influencing policy is not a passive phenomenon. Rather than simply waiting for a designated time to integrate research into policy or planning processes, consider how you can help to promote research as a catalyst for dialogue. Some research findings may require immediate action in terms of adjustments to existing policies and/or programs, or the

development of new ones. Under those circumstances, it may be necessary to hold a special consultation with relevant stakeholders, issue a media release, or pursue other activities to ensure access to the information.

Table 6—Case Study on the Role of Research as the Impetus for Implementing Shared Health Services in the Caribbean

Stanley Lalta (1995) conducted a study to "(a) to examine the regional experience with sharing of secondary and tertiary care services and (b) to recommend options for the enhancement of the role of shared health services" (Lalta 1995; cited by Henry-Lee 2001, pp.9–10)

The study entailed a secondary analysis of data from various Regional and national sources in the Caribbean. It documented that most CARICOM Member Countries have formal or informal arrangements for providing medical treatment to individuals referred from other countries. Although referral experiences were generally favorable, the study unearthed various challenges:
- administrative (e.g., limited support staff in sending countries)
- financial (some sending countries did not fulfill the financial commitments to patients)
- medical (e.g., with respect to follow-up care for patients)

Based on the study's findings, the research made the following recommendations:
1. Enhance local capability (facilities and skills) to deliver direct services or to accommodate visiting specialists
2. Establish a pool of mobile specialists
3. Establish regional referral centers
4. Establish resource clinical departments to support local services
5. Utilize new technologies such as telemedicine

The action stemming from the study was a policy that was endorsed by all the countries. Henry-Lee notes that reasons for successful translation of the above research into policy were as follows:
- A recognized health researcher conducted the research.
- Collaboration and dialogue between the research and stakeholders was on-going.
- The study was adequately funded.
- The research report was accessible to the public.
- Caribbean Governments had access to the research findings in a manner that that policy makers could understand.

Study described in the following paper: Henry-Lee, A. 2001, 'Integrating Research and Policy: The Researcher's Point of View'. Prepared for The Pan American Health Organization, March 2001.

Resources for Knowledge Management

Improved knowledge management will likely require an investment of additional resources. As a result, when planning activities, it is important to think about the types of expenses that may be incurred. The following are broad cost categories to consider:

☐ Staff/staff time
☐ Communication software (will be discussed later in the toolkit)
☐ Printing/materials production (e.g., hard copies of study reports; documentation on CD; preparation of briefing materials and other special dissemination products)
☐ Meetings (e.g., venue rental and other expenses associated with face-to-face consensus-building or consultative meetings with stakeholders)

MODULE OVERVIEW:

This module presents information on creating and managing knowledge networks to facilitate research coordination and the sharing of research information in the Caribbean.

Caribbean health stakeholders rely heavily on social and professional networking for knowledge transfer and sharing. This is often done on an ad-hoc basis. In our efforts to strengthen knowledge management in the Region, it is important to consider ways that we can use networks to facilitate the translation of research to action more systematically.

Do not assume that you have to create a special "knowledge network". While this is certainly a possibility, it is important to understand what networks currently exist, how information flows, and the dynamics of knowledge sharing. Consider issues such as the following:

- What are the channels or pathways for sharing health information?
- What are the knowledge networks in our country? In the Caribbean?
- Are these networks profession-specific? Sector-specific?
- What is the reach of each network (e.g., level and diversity of participation)?
- What dynamics exist within the network? For example: Is there a nucleus of individuals (or a particular organization) that is most active in sharing and/or requesting information? Are there lulls in communication within the network? What precipitates communication within the network?

Knowledge Networks

Essential Elements of a Functional Knowledge Network
(adapted from Collaborative Training Program, 2002)
- clear definition of who compromises the network
- an evidence-based approach
- information of assured quality—standards for data & metadata
- security, authentication & authorization of knowledge in the system
- consideration of ethical issues
- communication & information flows between diverse national & global information systems

Knowledge networks can be very formal (structured) or more informal. The structure of the network, as well as who participates in it, will depend largely on the purpose of the network and the entity responsible for "managing" the network. Both formal and informal health-related networks exist in the Caribbean. Most of them are centered on a particular institution or issue, for example:

- Caribbean Health Research Council
- Caribbean Epidemiology Centre Council
- Professional associations
- Sub-committees or technical working groups (e.g., at the Regional level, Monitoring and Evaluation Technical Working Group; at the national level, National HIV/AIDS surveillance and research sub-committees)

In addition to the above entities non-health entities such as media houses may have their own networks that can be tapped into to promote research for action.

As a knowledge broker, you can promote broader participation in an existing knowledge network, facilitate communications related to research across the network, as well as help to define the "culture" or rules of engagement within the network. As with any behavior being promoted, it is important to identify the incentives and disincentives for active participation in a knowledge network, and strategize accordingly. The benefits of participation must be very tangible to participants, and they must exceed the costs (e.g., inconvenience of additional time that may be devoted to participation in the network).

There are countless ways in which you can help to place research on the agenda of an existing knowledge network. The following are some examples:

- Highlight research conducted by individuals or institutions that participate in the network
- Use the network as a forum to raise awareness regarding funding opportunities to conduct local research for health
- Capitalize on opportunities for coordinated planning (For example, if multiple members of the network are embarking on strategic planning processes during the same time frame, identify shared information needs and commission a review of research evidence that responds to those information needs.)

Knowledge networks can be formed to respond to specific needs or issues for a specified period of time. For example, countries receiving resources from a specific donor or funding mechanism may see benefit in forming a network to support one another in evidence-based implementation, according to areas (or issues) they have in common.

In recent years, there has been increased use of the term "communities of practice". A community of practice (CoP) is a mechanism or forum for people with a common interest to share information, tools, and experiences who have a real need to know what each other knows. In other words, it is network for communal learning based on some common ground in terms of practice. The example in the preceding paragraph, whereby there are recipients of the same donor or funding mechanism, may lend itself to a CoP approach.

As a knowledge broker, discourage the creation of a hierarchy within the CoP; strive for a more egalitarian arrangement. Since it is important to establish some commonality (shared practice) among members of the CoP, a CoP will be more homogeneous in its composition than other knowledge networks.

Recommendation for the Caribbean:

In the interest of strengthening knowledge management capacity, explore the formation of a CoP comprised of researchers who are interested in strengthening health research systems and more specifically, the use of research in local health decision making. Capitalize on existing networks or communication pathways such as the CHRC Council.

Examine patterns of information sharing among health policy makers, whether ad-hoc or more systematic, and explore options to utilize existing mechanisms for tailored dissemination of research evidence in policy-friendly formats.

At the country level, an Essential National Health Research Council may be a natural knowledge network.

Utilize information, communication, and technology tools to facilitate information sharing. *(see next module)*

MODULE OVERVIEW:

This module describes different ways to use information and communication technology to support knowledge management in the Caribbean.

**It is important to address the issues discussed in the previous module ("Organizing Stakeholders to Facilitate Knowledge Management") before attempting to implement any of the ideas or approaches discussed in this module.

Technology as a Knowledge Management Tool in the Caribbean

Information and communication technology (ICT) is largely underused as a tool for improving access to research evidence and facilitating on-going communications within knowledge networks in the Caribbean. It is important to note that ICT is not a panacea for narrowing the research-practice gap. It will be of little utility without the existence of functional relationships between stakeholders -AND- proper oversight and maintenance by a designated entity.

Examples of ICT tools for knowledge management:
- Listservs[1]
- Web portal[2]
- Virtual Health Libraries (which can house health-related publications)
- Online databases (for warehousing/storage and querying local health-related research evidence)
- *Wikis*[3]

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[1] A **listserv** is an electronic mailing list to which an individual must 'subscribe'. The listserv is moderated by a designated entity.

[2] A **web portal** is simply a "gateway" (e.g., a single website) that directs web users to other Internet resources, through a series of hyperlinks.

[3] A *wiki* is computer server software that enables Internet users to create and edit the content on a web page; it facilitates more interactivity amongst online users

All of the above depend on access to the Internet and represent ways to facilitate on-going knowledge sharing. However, ICT can also be utilized in discrete ways on an ad-hoc basis. For example, the Internet can be utilized for innovative communication and dissemination approaches such as web-conferencing and live streaming of an event on a designated website—both of which are viable options when it is not feasible for face-to-face interaction.

→ *Refer to <u>Annex 1</u> for a checklist of issues to consider when weighing IT options.*

The following sections discuss three of the most viable options in the Caribbean: listservs, a Virtual Health Library, and wikis.

Listservs

Listservs are a popular means of sharing information via e-mail communication. The following are issues to consider regarding listservs.

- A listserv needs to be moderated, so the entity tasked with that responsibility should have the necessary staff, time, and IT infrastructure to fulfill that responsibility.
- Listservs are usually regarded as virtual mailing lists. They may not be the best option if there is a need for on-going virtual dialogue between individuals. In the latter case, options such as virtual chats or e-mail groups can be pursued.
- Individuals are becoming increasingly e-mail wary. The pros and cons of an e-mail based means of sharing information need to be taken into consideration. Some listserv moderators try to minimize the number of e-mails sent to individuals on the listserv mailing list by accumulating e-mail submissions over a designated period of time, then consolidating the submissions into a single "digest" e-mail (e.g., one e-mail sent weekly or monthly).
- To minimize the volume of material sent via e-mails, content is often limited to very short abstracts, with links to websites where full-text materials can be accessed.

Creating and Managing a Virtual Health Library in the Caribbean

A Virtual Health Library (VHL) is a web-based warehouse for health-related publications. In Latin America and the Caribbean (LAC), the Pan American Health Organization (PAHO), with support from Regional stakeholders, is exploring

the VHL model as a means of the technical cooperation in health-related scientific and technical information in the LAC region (Abel 2000).

Requirements for a Functional Virtual Health Library:
- ✓ Designate a single entity to manage the VHL.

- ✓ Build on existing systems for indexing scientific literature.

- ✓ Create a mechanism for linking health libraries and information centers within the Region (e.g., identify physical libraries housed within tertiary-level institutions, and link their electronic literature databases).

- ✓ Establish clear criteria and processes for determining the inclusion/exclusion of scientific literature in the VHL. **(Refer to Module 3 of this toolkit for illustrative criteria.)**

- ✓ A truly pan-Caribbean VHL should be multilingual, including documents in English, French, Spanish, and Dutch.

- ✓ Use the health research agenda as the framework for structuring the VHL.

- ✓ Strengthen human resources in information management (e.g., librarians, documentalists, information specialists) within the Region to support a dynamic and sustainable VHL.

- ✓ Include mechanisms for tracking "hits" (number of VHL users and queries) and usage patterns.

- ✓ Include abstracts and full-text versions of available literature.

- ✓ Convert as much of the literature into electronic (e.g., PDF) format as possible.

- ✓ For literature that cannot be made available free of cost, include their abstracts/summaries and hyperlinks to other sources such as SCIELO[4] (**http://caribbean.homolog.scielo.org/scielo.php/script_sci_serial/lng_en/pid_0043-3144/nrm_iso**).

- ✓ Include a search function that enables users to query literature according to certain criteria such as: date, country, language, or key words.

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[4] ScieLO = Scientific Electronic Library Online, which is a web-based resource managed out of Brazil.

Due to the fact that a plethora of search facilities already exist for international literature, the VHL should focus on scientific and technical literature produced by and for the Caribbean.

Using Wikis

A *wiki* is a website containing an online database that allows for interactive knowledge management. Website users can contribute to and edit the content of the website. All changes made to the *wiki* are tracked, so all users can easily see what alterations have been made to the content of the web site.

The prospect of allowing web users to edit the content of a website might bode well in terms of transparency and "democratic" knowledge management; however, *wikis* are not without challenges. One of the major challenges relates to the ability to control the quality of the content added to the website. However, various quality-control steps can be taken. For example, the entity that creates the *wiki* usually acts as (or hires) an Administrator, having the authority to manage everything about the *wiki*, including who is granted permission to modify various aspects of the website. Examples of ways to limit control in terms of who adds, deletes, or edits content and pages on the website include assigning a small number of individuals as *wiki* Moderators, and/or requiring *wiki* users to register in order to use the web site.

There are many options in terms of free wiki software. However, it is important to remember that there are still costs associated with establishing and maintaining a quality website (e.g., human resources).

Recommendation for the Caribbean:

In the interest of implementing solutions that are both feasible and sustainable for the Caribbean context, it is probably best to consolidate selected ICT options into a "one-stop shopping" resource. Plans are already underway to establish a VHL for the Caribbean. Regional knowledge brokers should explore the possibility of eventually adding a *wiki* feature, whereby different countries (or groups of countries [e.g., OECS countries, UKOTs]) can be assigned a module or page within the VHL where they can contribute content (e.g., research proposals, research reports, briefs, and other documentation) pertaining specifically to that country/set of countries. Designated individuals (or institutions) within each country can be granted access to add, delete, or modify the content pertaining to their country.

MODULE OVERVIEW:

This module discusses the specifics of developing messages to communicate findings from research, as well as how to package research evidence for different audiences.

Developing Messages to Communicate Research Findings

Research will continue to be underutilized in our health decision making if the take-home messages are unclear. Knowledge brokers can assist researchers in communicating research findings to potential end users in formats that they will understand. One of the first steps is achieving clarity regarding the message that needs to be conveyed. There is an art to developing effective messages. John Lavis (2002) identifies five essential elements:

1. <u>What</u> (is the message)?
2. <u>To whom</u> (audience)?
3. <u>By who</u> (messenger)?
4. <u>How</u> (transfer method)?
5. With what <u>expected impact</u> (evaluation)?

→ *<u>ANNEXES 2 and 3</u> present worksheets adapted from tools developed by Canada's Institute for Work and Health (2007).*

Different stakeholders will want to know different things, so it will be necessary to tailor dissemination accordingly. The following are examples of the types of information to emphasize, according to stakeholder group:

- <u>Researchers</u>:
    o What conceptual or theoretical framework was used
    o What methodologies were employed
    o What the caveats and limitations are

- o What research gaps/unanswered questions remain

- Health planners and policy makers (This group will be particularly interested in evidence that is generalizable on a broad scale):
    - o How to target resources
    - o What interventions or programs to bring to scale
    - o How to strengthen the health system to achieve health and development objectives

- Health practitioners/service implementers:
    - o How to align technical work with relevant findings from research
    - o What changes/updates need to be made to technical standards and guidelines
    - o What strategies and interventions are most effective

- For civil society:
    - o How to better serve target communities/population groups
    - o How methodologies can be adapted to produce evidence for NGOs and communities

Communications will entail more than just the presentation of research findings. Researchers often offer program and policy recommendations based on their evidence. When formulating recommendations:

- ✓ Make sure that the recommendations flow directly from the conclusions of the study.
- ✓ State recommendations in terms of specific action steps.
- ✓ Discuss the feasibility of implementing recommended actions (e.g., identify policy gaps, discuss financial, human resource, and structural requirements).

Illustrative Messages Based on the Focus of the Research

The types of messages you construct will depend largely on the type of research that was conducted. The following are illustrative types of messages to emphasize, according to the focus of the research.

If the focus of the research was on:

→ burden of disease, your communication messages should highlight factors such as the following:

- o where to target health efforts
- o in which segments of the population
- o the socioeconomic impact of the disease (if appropriate)

→ <u>drugs, technology, and commodities</u>, your communication messages should highlight factors such as the following:
- o impact on reduced morbidity or mortality, relative to current/existing drugs/drug regimens, technology, or commodities

→ <u>health behaviors or practices</u>, your communication messages should highlight factors such as the following:
- o possible content of behavior change messages
- o correlation between particular behaviors and risks of morbidity/mortality
- o mediating factors for behavior change

→ <u>specific interventions</u>, your communication messages should highlight factors such as the following:
- o effectiveness in reducing morbidity and mortality
- o cost-benefit or cost-effectiveness (if appropriate)
- o prospects for scale-up

→ <u>health systems issues</u>, your communication messages should highlight factors such as the following:
- o strategies for health system strengthening
- o issues of sustainability

MODULE OVERVIEW:

This module describes various dissemination formats for communicating research evidence.

Presenting Research in Different Formats and Fora

> *Tips When Communicating Messages*
> (adapted from Institute for Work and Health [2007])
>
> 1. Actively engage intended end user(s)
>
> 2. Package the message in a manner that facilitates application in day-to-day practice, for example, through formats such as:
>   – Workbooks
>   – Decision aids
>   – Patient education materials
>   – Pocket cards
>
> 3. Use straightforward, non-technical language
>
> 4. Be honest about the caveats of the research, but be decisive in terms of the conclusions being drawn. *(Lack of clarity makes it difficult for end users to incorporate research evidence into their work.)*
>
> 5. Attempt to link findings from your study to previous studies on the same or related issues (help the audience integrate evidence to formulate one set of conclusions regarding the way forward).

In thinking about dissemination, there are many options in terms of how evidence can be packaged to support timely and appropriate use by target end users (Table 7). Those options include:

- Reports
- Peer-review journals—particularly appropriate for researcher-to-researcher dissemination
- Research summaries—extremely concise (e.g., one or two pages), written in layman's language
- Policy briefs
- Media releases
- Fact sheets
- Seminars/meetings
- Web casts/e-conferencing
- Power Point presentations
- Videos/documentaries

Table 7—Dissemination Options based on the Nature of Evidence

NATURE OF EVIDENCE:	NATURE OF DISSEMINATION:
I. From descriptive studies	• Policy briefs on priority setting and targeting insights stemming from the research • Study report disseminated in face-to-face (e.g., meetings) and virtual fora (e.g., downloadable from web sites; via listservs; via a Virtual Health Library) • Short video documentary (particularly if the research highlighted issues that were not previously documented in other studies)
II. From large-scale research studies (e.g., multi-country study)	• Media releases • Web casts/e-conferencing • Study report disseminated in face-to-face (e.g., meetings) and virtual fora (e.g., downloadable from web sites; via listservs; via a Virtual Health Library) • Short video documentary
III. Evidence is <u>consistent with</u> previous evidence (local/regional or international)	• Technical consultations • Electronic communication (e.g., via listservs) to communities of practices and other stakeholders • Web casts/e-conferencing • Media releases • Study report disseminated in face-to-face (e.g., meetings) and virtual fora (e.g., downloadable from web sites; via listservs; via a Virtual Health Library)
IV. Evidence that is <u>inconsistent with</u> previous evidence	• Consultative meeting with researchers and technical experts • Study report disseminated in face-to-face (e.g., meetings) and virtual fora (e.g., downloadable from web sites; via listservs; via a Virtual Health Library)
V. Evidence that <u>does not have major implications in terms changes needed to be made in health service delivery</u> (facility or community level) or policies	• 'Passive' dissemination, e.g., adding study report to Virtual Health Library or website • Notification via listserv

A study report is usually a requirement of the entity that has funded the research study. However, it is also a good starting point in the wider dissemination process, as it allows you to document extensive details of the research methodology,

analysis, results, interpretation of results, and recommendations. It can then serve as a source document from which you can extract information that can be re-packaged for different audiences.

→ **ANNEX 4** *discusses key considerations when presenting research in a study report.*

In addition to study reports, another common means of dissemination is PowerPoint presentations.

→ **ANNEX 5** *highlights tips for preparing PowerPoint presentations.*

Most program and policy development processes involve some form of a situation and response analysis. If they do not already exist, knowledge brokers can be requested to facilitate the development of research briefs or policy briefs for individuals involved in planning processes. As a reminder, you do not have to wait until there is a scheduled "planning process". As discussed in Module 3, a well-constructed policy brief can be used to spark dialogue surrounding changes that need to be made in terms of health policies and programs.

In the Caribbean, peer-review journals are not a predominant form of dissemination; however, they have tremendous untapped potential in broadening access to Caribbean-specific research evidence both within and outside of the region. Keep in mind that the process of getting a research article published in a peer-review journal can be somewhat protracted. As a result, dissemination through journals should not be the sole option if there is research evidence that requires immediate action at the local level. Also keep in mind that certain types of stakeholders (e.g., researchers, academics, health practitioners) tend to access journals. Consequently, a significant number of stakeholders may be missed if you rely too heavily on publishable articles as a means of dissemination.

→ **ANNEX 6** *discusses tips for writing a publishable paper.*

Working with the Media

The media (print, television, radio) can act as important knowledge brokers, particularly for groups (e.g., general public, civil society, program beneficiaries) that are often external to knowledge networks organized around technical issues.

Table 8—The Need to Invest in Media

Previous experiences in Jamaica have highlighted the need for journalists who are not only interested in and committed to writing about health-related issues, but who have the <u>capacity</u> to re-write scientific literature for various non-technical audiences.

Funding and capacity-building mechanisms need to be in place to address this need, as well as other crucial factors in communicating research to facilitate its use by various stakeholders.

Ashley, D. 2008. *Interview with Dr. Deanna Ashley*, personal communication, 9 January 2008, Jamaica.

Media engagement in translating research to action will often require the intervention of other knowledge brokers who can facilitate access to research evidence and interpret the take-home messages to be conveyed to target audiences. The following tips are adapted from *Connecting People to Useful Information: Guidelines for Effective Data Presentations (*MEASURE Evaluation 2003):

I. When Working with Journalists:

- ✓ **Send informational materials or a press kit to journalists in advance of a dissemination event that you would like covered by the media.**

- ✓ **A press kit can include the following:**

    - o **a press release**
    - o **copy of the seminar agenda**
    - o **information sheet of research highlights**
    - o **additional summary materials relevant for the press (e.g., copy of opening address, if available).**

- ✓ **Direct materials or invitations to specific reporters, editors, or producers.**

- ✓ **If holding a press briefing:**
    - o **Hold the press briefing either immediately before or immediately after the formal dissemination seminar.**
    - o **Schedule the press briefing in advance of reporters' deadlines (e.g., in the morning).**
    - o **Make reminder calls the day before the briefing to confirm attendance.**
    - o **Designate an individual as media liaison.**

When Preparing a Media Release[5]:

- ✓ **Write a media news release in the style of a newspaper article or news item that can air on radio or television.**

- ✓ **The media release should be a maximum of two pages long; however, it is preferable to limit it to one page.**

- ✓ **Present the most important information first.**

- ✓ **Only present facts; omit extensive interpretation of the data.**

- ✓ **Keep the amount of data and statistics to a minimum.**

- ✓ **At the end of the release, provide a few sentences about your organization, program, or project that generated the evidence.**

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[5] A media release allows you to disseminate research findings in a highly succinct manner to the general public

MODULE OVERVIEW:

This short module discusses ways to figure out whether or not your attempts at improved knowledge management are working.

We often refer to the "use" or "application" of research as the ultimate aim of our knowledge management efforts. However, those terms can be quite ambiguous, meaning different things to different people. For many individuals, use is equated with consideration (Nielson 2001). However, there is no guarantee that consideration of research evidence leads to informed policies and programs.

Earlier in the toolkit, we discussed the concept of deliberative process. What is the yardstick against which we should determine whether or not a deliberative process was effective? The following are some examples of criteria:

- ✓ The input of stakeholders who are <u>not</u> high-level decision makers (e.g., civil society organizations, beneficiaries, health care providers) is obtained in a structured manner (e.g., through interviews, group discussions, or other means).

- ✓ Relevant research evidence is presented to different stakeholder groups in formats that a) they understand and b) reflect their information needs.

- ✓ The priorities and inputs of decision makers are reflected in the research design **(in instances when a deliberative process is used to plan research)**

- ✓ The resulting policy, guidelines, or plan receive a low degree of opposition from stakeholders **(in instances when a deliberative process is used to develop a policy or program)**

✓ Guidance emerging from the process is implementable

It is also important to evaluate a deliberative process in terms of the amount of time and resources allocated to the process.

In light of what you now know about knowledge management, it important to view the successful translation of research to practice as more than just the production of a study report or a dissemination workshop. The following are ways to identify successes along the continuum from research to action:

✓ **Track how research findings are disseminated** (The gold standard: Research are available in a wide variety of formats to different audiences, for example, public health practitioners and implementing agencies develop advocacy materials (e.g., policy briefs), as well as technical and program materials (e.g., technical guidelines, educational materials, behavior change materials) as tools for policy development/revision and state-of-the-art program implementation.).

✓ Track the use of knowledge management resources such as the number of "hits" on Caribbean websites housing a Virtual Health Library, or the number of subscribers to a particular listserv.

✓ Examine the extent to which researchers have defined roles in policy making and program development processes.

✓ Determine how policy makers and technocrats use research evidence in tandem with other types of strategic information in health (e.g., program monitoring data; routine health information; surveillance data) to identify the best policy options to improve health.

✓ Monitor the extent of on-going dialogue among stakeholders regarding the fit between local needs, local action, and available evidence.

✓ Assess whether specific research studies are cited in policy and planning documents.

✓ Examine the extent to which local evaluation research is being used in strategic planning.

✓ Identify instances when research has been used to precipitate dialogue re: changes to health policies and programs in light of recent evidence.

✓ Document country case studies of successful application of research to health policies and programs.

<u>Useful Websites and Search Engines for Accessing International Health Research Literature that can be Used by Caribbean Decision Makers:</u>

- Bioline International Online
    – **Description:** An online resource that contains scientific literature on a broad range of topics (e.g., agriculture, biology, medicine, science, technology) from a number of countries. The majority of the articles are in English, although some articles are available in French, Spanish, and Portuguese. Articles are available in plain HTML format, free of cost.
    – **URL:** < http://www.bioline.org.br/ >

- Cochrane
    – **Description:** A series of databases containing evidence for healthcare decision making.
    – **URL:** < http://www3.interscience.wiley.com/cgi-bin/mrwhome/106568753/AboutCochrane.html>

- COHRED (Council on Health Research for Development)
    – **Description:** COHRED's online library and archives offer electronic versions of discussion papers, manuals, policy reports, and other tools on topics related to health research for development.
    – **URL:** <http://www.cohred.org>

- ELDIS
    – **Description:** A gateway to information related to international development.
    – **URL:** <http://www.eldis.org>

- EVIPNet
    – **Description:** Website for a partnership between researchers and policy makers/decision makers to promote the use of health research in policy- and decision-making and practice. There are links to various documents, as well as an e-journal related to health research policy and systems.
    – **URL:** <http://www.who.int/rpc/evipnet/en/>

- POPLINE
  - **Description:** Online database of literature on population, family planning, and reproductive health.
  - **URL:** < http://db.jhuccp.org/ics-wpd/popweb/ >

- PubMed
  - **Description:** A web-based, literature search service offered by the U.S. National Library of Medicine and National Institutes of Health to access millions of health-related citations.
  - **URL:** < http://www.ncbi.nlm.nih.gov/sites/entrez/ >

- Health Research Policy and Systems
  - **Description:** An open-access, peer-reviewed, online journal ("e-journal") that provides a forum for the global research community to share ideas and information. It is published in collaboration with the World Health Organization.
  - **URL:** < http://www.health-policy-systems.com >

- Population Reference Bureau (PRB)
  - **Description:** Population Reference Bureau's website provides data and a myriad of resources (e.g., bulletins, policy briefs, reports) on population, health, and the environment.
  - **URL:** <http://prb.org>

- McMaster University's Program in Policy Decision-Making (Canada)
  - **Description:** The website offers access to presentations and publications on evidence-informed policy making.
  - **URL:** < http://www.researchtopolicy.ca >

Resources for Strengthening Knowledge Management Capacity

The Collaborative Training Program developed training curriculum that is divided into five units:

Unit 1—Information and Communication Technologies in Knowledge Management
Unit 2—Knowledge Translation: Using Knowledge for Policy, Practice and Action
Unit 3—Skills for Knowledge Managers
Unit 4—Going Local: Using Knowledge at the Local Level
Unit 5—Knowledge Networks

Below is the reference information for the curriculum:

The Collaborative Training Program 2002, Health Research for Policy, Action and Practice. Training Modules. The Collaborative Training Program for Health Research for Policy, Action and Practice, Version 1, 2002.
Available at: **http://www.cohred.org/main/CommonCategories/LibraryandArchive.php?catId=1333&&subCatId=1341&pageid=**

Compendia
Nova Scotia Health Research Foundation 2006, Compendium of Knowledge Transfer Resources, Nova Scotia, Canada
Available at: **http://www.nshrf.ca/AbsPage.aspx?id=1280&siteid=1&lang=1**

Guides, Handbooks, and Toolkits
Canadian Institutes of Health Research (CIHR) 2002, Moving Population and Public Health Knowledge into Action: A Casebook of Knowledge Translation Stories.
Available at: **http://www.cihr-irsc.gc.ca/e/documents/ipph_ktcasebook_e.pdf**

CIHR Institute of Health Services and Policy Research 2002, Evidence in Action, Acting on Evidence: A Casebook of Health Services and Policy Research Knowledge Translation Stories.
Available at: **http://www.cihr-irsc.gc.ca/e/documents/ihspr_ktcasebook_e.pdf**

Hovland, I. 2005, Successful Communicating: A Toolkit for Researchers and Civil Society Organizations. Overseas Development Institute, London.
Available at: **http://www.odi.org.uk/publications/rapid/tools2.pdf**

MEASURE Evaluation 2003, Connecting People to Useful Information: Guidelines for Effective Data Presentations.
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http://www.prb.org/Content/NavigationMenu/PRB/PRB_Library/Guidelines_for_Effective_Data_Presentations/Guidelines_for_Effective_Data_Presentations.htm

Porter, R. & Prysor-Jones, S. 2007, Making a Difference to Policies and Programs: A Guide for Researchers. Academy for Educational Development, Washington, DC.

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Available at: **http://www.chsrf.ca/kte_docs/IWH_kte_workbook.pdf**

Start, D. and Hovland, I. 2004, Tools for Policy Impact: A Handbook for Researchers. Overseas Development Institute.
Available at: **http://www.odi.org.uk/publications/rapid/tools1.pdf**

Sutcliffe, S. and Court, J. 2006, A Toolkit for Progressive Policymakers in Developing Countries. Overseas Development Institute, United Kingdom.
Available at: **http://www.odi.org.uk/publications/rapid/tools3.pdf**

Tsui, L., Chapman, S.A., Schnirer, L., & Stewart, S. 2006, A Handbook on Knowledge Sharing: Strategies and Recommendations for Researchers, Policymakers, and Service Providers. Community-University Partnership for the Study of Children, Youth, and Families, Canada.
Available at: **http://www.cup.ualberta.ca/component/option,com_docman/task,cat_view/gid,23/%20**

Other Resources

Caribbean Health Research Council 2007, Findings from a multi-country health research systems assessment (included as an Annex to the 2008–2012 Policy Framework for Health Research in the Caribbean).

Culyer, T. 2005, 'Deliberative processes and evidence-informed decision-making in health care', Health Services Restructuring: New Evidence and New Directions, 17–18 November 2005.
Available at: **http://jdi.econ.queensu.ca/Files/Conferences/HealthServicesconferencepapers/Culyer_paper.pdf**

Gordon-Strachan, G., Bailey, W., Lalta, S., et al. 2006. Linking researchers and policy-makers: some challenges and approaches. *Cadernos de Saude Publica*, Rio.
Available at: **http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S0102-311X2006001300016&lng=es&nrm=iso&tlng=es**

Henry-Lee, A. 2001, 'Integrating Research and Policy: The Researcher's Point of View'. Prepared for The Pan American Health Organization, March 2001.

Lavis, J., Ross, S., Hurley, J., et al. 2002, 'Examining the role of health services research in public policymaking'. *Milbank Quarterly*, vol. 80, no. 1, pp.125-154

Lomas, J. Culyer, T., McCutcheon, C., McAuley, L., and Law, S. May 2005, 'Final Report - Conceptualizing and Combining Evidence for Health System Guidance', Canadian Health Services Research Foundation

Neilson, S. 2001, IDRC-Supported Research and its Influence on Public Policy—Knowledge Utilization and Public Policy Processes: A Literature Review, December 2001. International Development Resource Center.

Packer, A. 2000. 'The Virtual Health Library and the Remodeling of the Health Scientific and Technical Information Flow in Latin America and the Caribbean'. Proceedings from the XXXV Meeting of the Advisory Committee on Health Research, Havana, Cuba, 17–19 July 2000.
Available at: **http://www.paho.org/English/HDP/HDR/ACHR-00-07.pdf**

Renn, O. (undated), Analytic-deliberative Processes of Decision Making: Linking Expertise, Stakeholder Experience and Public Values University of Stuttgart and DIALOGIK gGmbH Doc No. 847, Stuttgart
Available at: **http://www.corwm.org.uk/PDF/847%20-%20Amsterdam%202004.pdf**

Schechter, C. and Brunner, S. 2005, 'Bridging the Gap between Public Health Research and Practice: Lessons from the field', Academy for Educational Development, Washington, DC.

Wyatt, A. Using International Comparisons in Policy Making. Government's Centre for Management and Policy Studies (United Kingdom)

Annexes

ANNEX 1—Checklist of Key Issues to Consider When Selecting IT Medium to Support Knowledge Management

ANNEX 2—Worksheet on Developing Messages from Research Findings

ANNEX 3—Worksheet on Communicating Messages

ANNEX 4—List of Key Issues to Consider When Presenting Research Findings in a Report

ANNEX 5—Some Tips When Preparing PowerPoint Presentations

ANNEX 6—Tips for Writing a Publishable Paper

ANNEX 1.

Checklist of Key Issues to Consider When Selecting IT Medium to Support Knowledge Management

✓ Do the target end users have routine access to computers?

✓ Do individuals have reliable access to the internet?
- o Is the intention behind ICT use to increase access to information or access to actual data (the latter requires faster internet connections)
- o Is the priority access to websites (e.g., for literature search, database queries) (requires faster internet connection) or just e-mails (e.g., via a listserv)?

✓ Are target end users self motivated in accessing research evidence on the Internet, or are they more passive?
- o In the former situation, individuals may take the initiative to regularly visit a website; in the latter situation, individuals may be more receptive to receiving occasional e-mails via a listserv.

✓ To what degree will individuals modify content?
- o Media such as *wikis* allow users to modify the content of web sites.

✓ How much interaction is desired between individuals accessing the source?
- o Static websites are the least interactive media, whereas listservs are more interactive.

✓ What is the IT capacity of 'knowledge brokers' with respect to factors such as the following:
- o database software?
- o personnel to monitor quality of web activity?
- o maintenance?
- o managing "relay stations" for translating and adapting information materials in order to make them locally appropriate?

ANNEX 2. Worksheet on Developing Messages from Research Findings

TARGETED END USER GROUP: (e.g., Ministers of Health, Chief Medical Officers, members of professional associations, program staff of NGOs)					
DECISION MAKING:	**COMMUNICATION MEDIUM:**			**COMMUNICATION METHODS:**	
(A) What relevant decisions do the end users 'own' or 'influence'? (e.g., new staff recruitment, technical guideline development, communities targeted)	**(B)** Who is a credible messenger to this audience?	**(C)** What is the potential to engage/partner with the credible messenger(s)?	**(D)** Is the end user group connected to existing networks or 'knowledge pathways'?	**(E)** How is information shared with/within the group?	**(F)** To what type of information (and in what format) are members of this group most receptive?

ANNEX 3. Worksheet on Communicating Messages

RESEARCH FINDING	MESSAGE STEMMING FROM THE FINDING	HEALTH SYSTEM CHANGES SUGGESTED BY MESSAGE	BARRIERS TO CHANGE	TECHNICAL SUPPORT NEEDS IN EXECUTING CHANGE	
				What:	*Among Whom:*
1.	**Message:** **Relevant audience:**				
2.	**Message:** **Relevant audience:**				
3.	**Message:** **Relevant audience:**				
4.	**Message:** **Relevant audience:**				

ANNEX 4.

Key Issues to Consider When Presenting Research Findings in a Report
• **Can you summarize findings in a paragraph?** → Report findings using text.
• **Is it important to present highly precise information? Do you have a lot of data?** → Present your data in a table (or set of tables)
• **Do you need to demonstrate trends or relationships (e.g., comparisons)** → Use figures or graphs
• The written portion of the Results section should not simply repeat the statistics and/or indicators presented in the tables, graphs, and figures. Rather, the text should help the reader see and understand the main factual trends and relationships in the data.
• In the Discussion section, attempt to synthesize findings from the present study with information from other related research, and discuss the main take-home messages from this newly expanded body of evidence.
• Discuss the generalizability of the study findings. For example, the study may have been conducted in a single country. Are the findings applicable to other Caribbean countries? If so, which ones (e.g., geographic location [e.g., OECS]; language [e.g., French speaking])? If the study was conducted in a particular segment of the population, discuss the degree to which the findings might apply to other groups.

ANNEX 5.

Some Tips When Preparing PowerPoint Presentations

(adapted from *Connecting People to Useful Information: Guidelines for Effective Data Presentations* [MEASURE Evaluation, 2003])
http://www.prb.org/Content/NavigationMenu/PRB/PRB_Library/Guidelines_for_Effective_Data_Presentations/Guidelines_for_Effective_Data_Presentations.htm

✓ Use the same font, size, color, and capitalization format throughout the presentation.

✓ Use 32- to 44-point font size for titles and no smaller than 28-point font size for the text or bulleted items.

✓ Follow the "6 x 6" rule: Include approximately six words per line, six lines per slide (excluding the title).

✓ Provide clear explanations of all technical terms.

✓ Use the "active" voice, starting each bullet point with a noun or verb.

✓ When presenting data, round off numbers to the nearest whole number.

✓ For graphs, keep labels horizontal so that they can be easily read by your audience members.

✓ Add photos to a data presentation can enhance audience comprehension and interest. Photos also help put a "human face" on the numbers.

✓ If presenting to health practitioners, include case studies, as appropriate.

ANNEX 6.

Tips for Writing a Publishable Paper

(adapted from Nancekivell, S 2004, Writing a Publishable Journal Article: A Perspective from the Other Side of the Desk. Available on Science Careers web site:
http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/3010/writing_a_publishable_journal_article_a_perspective_from_the_other_side_of_the_desk/)

- ✓ Keep the title to 100 characters or less.

- ✓ Make sure that the title reflects the main point of the paper.

- ✓ Pay attention to the abstract of the study.
    - o Make sure the original contribution of your study is clear.
    - o Make sure that the information in your Abstract is consistent with the information presented in the body of the paper.
    - o Include explicit statements(s) of the main conclusion(s) from the study.

- ✓ Clearly and succinctly describe the methods used in the study.

- ✓ Systematically present the study results.
    - o State the factual information (data) first.

- ✓ Use a Discussion section to interpret study findings and discuss their significance. Do not simply repeat what was presented in the Results section.