



A NATIONAL PUBLIC HEALTH BULLETIN CONSIDERATIONS FOR ITS DEVELOPMENT



Centers for Disease
Control and Prevention
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ACRONYMS

EIC – Editor-in-Chief

MOH – Ministry of Health

NGO – Non-Governmental Organization

PHB – Public Health Bulletin

POC – Point of Contact

SMART – Specific, Measurable, Achievable, and Time-bound

SME – Subject-Matter Experts

SOP – Standard Operating Procedure

WHO – World Health Organization

EXECUTIVE SUMMARY

This document is for governments interested in producing a national public health bulletin (PHB). A PHB is the government's primary communications channel for disseminating timely, reliable, authoritative, accurate, objective, and useful public health information, including recommendations to the public and health professionals.

This document introduces the concept of a PHB and provides practical action items to facilitate its development and dissemination. Part 1 includes the rationale for producing a PHB and summarizes the qualities that distinguish it from other government-sponsored public health documents. Part 2 describes activities and standard operating procedures necessary for producing and disseminating a PHB. Annexes supplement Part 2 by providing examples of work plans, position descriptions, and budgets.

For governments in the first stages of producing a PHB, this document is a resource for getting started. We encourage governments to seek technical assistance and advice from experts and ministries of health of other governments that are establishing or have already established a PHB.



Disease surveillance in China



Yellow fever outbreak response in Luanda, Angola. Published outbreak reports help public health practitioners contain threats.

PART 1 – RATIONALE AND QUALITIES OF A PUBLIC HEALTH BULLETIN


Rationale

Every public health threat can be reduced if the public and health professionals know its scope and cause. The time needed to identify, quantify, and mitigate health threats has decreased from years to weeks, and getting accurate information to policy makers, the public, and health professionals, who can act to prevent the spread of disease is the responsibility of the ministry of health (MOH). A highly regarded and user-friendly public health bulletin (PHB) can rapidly disseminate critical public health information to policy makers, health professionals, and the public.

Purpose

The purpose of a national PHB is to provide to health professionals and the public an authoritative, timely, and influential source of information and recommendations for actions to minimize public health threats. A PHB:

1. **Disseminates important new findings rapidly.** Other media can be as fast as the PHB (e.g., press conferences, press releases, blast e-mails), but an established, well regarded PHB is more likely to influence behavior of the targeted audiences because it is trusted and authoritative.
2. **Displaces misinformation.** A PHB is a reliable source in the absence of trusted and authoritative information. Media channels, especially the Internet, can provide incomplete or erroneous information.
3. **Informs the public.** Directly (and indirectly through the press), the PHB provides information on current health threats, what the government is doing to reduce the threats, and what individuals can do to protect themselves.

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4. ***Provides a central voice for national public health authorities.*** A PHB should be a single, go-to source for key public health recommendations.
 5. ***Builds national public health capacity by:***
 - a. fostering a culture of rigorous scientific analysis of health data as the basis for public health dialogue and policy,
 - b. providing opportunities for new authors (e.g., Field Epidemiology Training Program residents) to work directly with skilled editors to increase their ability to create publishable reports,
 - c. promoting and integrating national public health establishments with the international scientific community,
 - d. providing recognition for public health workers at the peripheral, as well as the national levels, by publishing their work, and
 - e. stimulating the interest of the press and the public in public health by publishing authoritative yet understandable reports on interesting and important public health topics.

Characteristics

To achieve its purpose, the PHB must differ in important ways from most government, academic, and health education products.

1. ***It is a government publication.*** The PHB is the voice of the government. Everything in the PHB must be thoroughly vetted scientifically and cleared for publication by the government as consistent with its plans and policies.
2. ***It is held to the highest scientific standards.*** Subject matter experts (SME), other technical experts, and communication specialists review the content and take care to use clear language that distinguishes between what is known and what is merely suspected.
3. ***It communicates new findings rapidly, supplementing press releases and other ad hoc communications.*** The PHB must have a process in place to thoroughly vet, clear, and publish government reports and recommendations within days of discovery of an urgent health threat. The peer review model is too slow and too unreliable in such cases. Therefore, there needs to be an alternate, “expert review” model in place to deal with urgent situations. The staff is on-call all day every day. If need be, a final cleared report can be reviewed, revised, accepted, edited, and published electronically, ideally in less than 12 hours.
4. ***It prioritizes information important for the practice of medicine and public health.*** The PHB publishes information that, when acted on, results in an improvement in public health. At times, information not of great immediate use is also published to build interest in a public health issue, stimulate discussion of public health challenges, and to recognize the work of public health workers.

5. ***It disseminates many of the government's most important public health recommendations, supplementing health education efforts by providing the supporting scientific background.*** Every report with findings of a study or outbreak investigation includes information on the implications of the findings; that is, what was done, is being done, or should be done by health professionals and the public to reduce the health threat.
6. ***It publishes surveillance data.*** The PHB includes interpretations of the analysis of surveillance information on both communicable diseases and non-communicable conditions (e.g., birth defects, suicide) and on risk behaviors (e.g., use of seat belts, smoking).
7. ***It targets a wide audience.*** Readers include the press, interested laypersons, and professionals at every level in every area of public health and medicine. For example, a report on hazards associated with recreational water might target the public and persons who maintain swimming pools while a report on a specialized test newly developed might target physicians and laboratory workers.
8. ***It serves as a "content provider."*** Journalists, health bloggers, teachers, and opinion leaders can adapt PHB reports for their audiences.
9. ***It is written in plain language.*** The PHB is written in clear, plain language, avoiding unnecessary jargon, so that it is accessible to diverse populations.
10. ***It is published regularly.*** To be regarded as authoritative and reliable, the PHB is considered a government priority and published regularly. To be timely, the MOH should aim to publish at regular intervals (e.g., quarterly or monthly) with electronic early releases when there is a need to disseminate information without delay.
11. ***It creates a record.*** Because it is indexed and archived as a scientific journal, its contents can be searched and referenced.



Community health talk in response to a cholera outbreak in Tanzania.



Types of content

DISEASE SURVEILLANCE SUMMARIES

A PHB includes surveillance reports of notifiable disease (i.e., diseases that are required by law to be reported to government authorities) and other diseases of interest. Using the PHB to communicate trends to the public and health professionals prevent outbreaks, ensure patients receive appropriate care, and guide the development of effective policies to control disease. Surveillance reports include:

- incidence by age, gender, and geographical region with maps as visuals,
- mortality rate by age, gender, and geographical region with maps as visuals,
- trends by month, quarter, and/or year with histograms as visuals,
- outbreaks of reportable diseases (i.e., occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area, or season), and
- proportions of health facilities reporting per district to indicate completeness of reporting.

Analyzing and presenting data by age, gender, and geographical location can identify issues of health inequity (e.g., access to healthcare) and determinants of health (e.g., access to hygienic sanitation facilities and potable water). Presenting data on completeness of reporting provides context for interpreting the data.

PUBLIC HEALTH RESPONSE GUIDELINES

The PHB is an efficient vehicle to communicate information on priority health issues (e.g., smoking cessation, stroke prevention, traffic injuries). Such articles should provide a transparent description of the evidence-based process used to develop the guidelines. The articles should also include a specific call to action or a set of recommendations and resources to enable the public and health professionals to act.

PUBLIC HEALTH NOTICES

The PHB promotes public policy and campaigns, such as:

- creating awareness of the hazards of smoking, riding motorcycles without wearing helmets, and riding in vehicles without wearing seatbelts,
- informing the public about mass drug administrations to treat endemic diseases, vaccine immunization days for polio and measles eradication, and other services provided by the government,
- addressing misinformation, such as rumors (e.g., “government campaigns to treat disease or immunize against disease cause infertility”),
- reporting on government targets and progress toward those targets, and
- generating demand for public health services.

In short, the PHB serves as the voice of the government.

CASE REPORTS, OUTBREAK REPORTS, AND RESEARCH FINDINGS

The PHB is a medium to publish reports of national interest that would take too long to publish in, or not be of sufficient general interest to, an international journal. The PHB can reproduce articles from partner non-governmental organizations (NGOs) and open-source publications in accordance with guidelines of the original source. For example, a published report of an outbreak in a neighboring country could be summarized and published in the PHB with commentary about the relevance of the outbreak to the country.

PART 2 – ACTIVITIES AND STANDARD OPERATING PROCEDURES FOR PRODUCING A PUBLIC HEALTH BULLETIN

Establishing a PHB requires generating political will, mobilizing resources, and developing standard operating procedures (SOPs). Figure 1 summarizes high-level activities with corresponding objectives.

Figure 1 – High-level activities and corresponding objectives

ACTIVITY	OBJECTIVE
Generate Political Will	<ul style="list-style-type: none"> Government recognizes value of the public health bulletin and provides resources for its production and sustainability
Mobilize Resources	<ul style="list-style-type: none"> Resources, including staff, partners, equipment, and funding, are identified, secured, and maintained
Develop Standard Operating Procedures	<ul style="list-style-type: none"> Processes are documented and standardized to facilitate timely production of a high-quality public health bulletin
Publish Public Health Bulletin	<ul style="list-style-type: none"> Public health bulletin is published with accurate and relevant information on schedule at regular intervals
Disseminate Public Health Bulletin	<ul style="list-style-type: none"> Public health bulletin is accessible and accessed by all stakeholders, including the public and the media
Monitor and Evaluate	<ul style="list-style-type: none"> Established indicators are measurable and continuously monitored to improve performance

Annex A provides sub-activities for each high-level activity presented in Figure 1. Annex B provides a logic model and work plan examples using the activities listed in Annex A.

Generate political will

Government decision makers need to support the PHB as an important communication channel to disseminate information. They should think of the PHB as their first choice for communicating their most important and urgent messages. Gaining support of decision makers (i.e., political will) is a critical first step to mobilizing resources, fast-tracking publications, and ensuring that the PHB is recognized as the trusted and credible voice of the government. Action items to create political will depend on the in-country circumstances (see Annex B for a sample work plan).

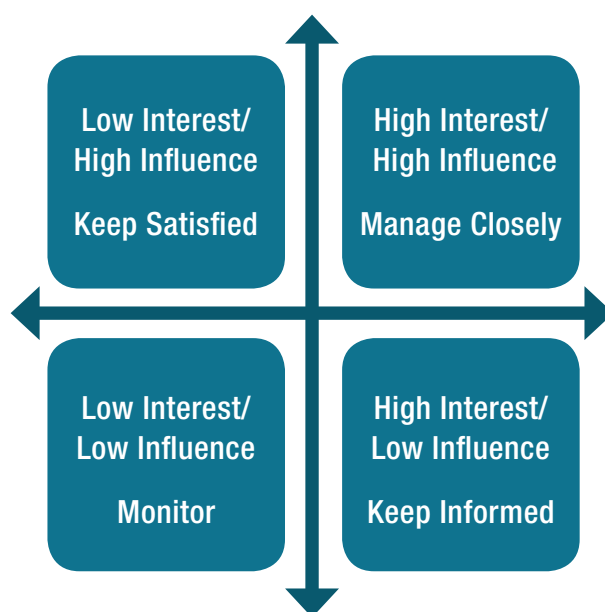
Mobilize resources

Resources include funding, professional networks, contact databases, dedicated personnel, and SMEs. A resource-gap analysis and stakeholder analysis are important steps to mobilizing resources. After needs, resources, and gaps are identified, mobilizing resources to fill the gaps will require substantial lead-time. For example, establishing a fully functional office, which requires space, staff, and equipment, can take months.

Resource Gap Analysis. The first step of a resource-gap analysis is to identify the resources needed to achieve the PHB goals and objectives (see Annexes A and B). To help with the first step, *Annex C provides a list of resources and a budget template.* The next step is to identify the resources that are available or easily accessible. For example, the PHB staff may use office space provided by the MOH. Resources not available represent the “gap” in resource-gap analysis. Strategies for acquiring resources that close the gap are to be included in the work plan.

Stakeholder Analysis. The first step in conducting a stakeholder analysis is to identify the PHB stakeholders (e.g., public, media, donors, universities, NGOs). The next step is to prioritize stakeholders according to their level of influence (e.g., credibility and resources) and interest. A stakeholder map facilitates the analysis (Figure 2). The information that results from the analysis informs strategies for approaching stakeholders for resources and meeting their needs.

Figure 2 – Stakeholder Analysis Map and Corresponding Strategies



PHB Staff. Careful selection of staff also takes time. Staff needed to publish a PHB include:

1. project managers to ensure deliverables are completed on time and within budget,
2. persons who can solicit or collaborate on scientifically valid content including outbreak reports, surveillance summaries, and evidence-based recommendations,
3. editors who can insure that every report is scientifically sound and clearly written, and
4. production personnel who can produce accurate printed and electronic versions of the PHB.

Finding ideal candidates to fill the positions can be difficult, especially when MOHs are short-staffed. Advertise position descriptions on the Internet and circulate them within other government agencies, academic institutions, and NGOs. *Sample position descriptions are included in Annex D.*



Public Health Bulletin Editors from Ghana, Tanzania and Zambia develop work plans

Editorial Board. Composition of the Editorial Board should represent a range of disciplines (e.g., primary health care, epidemiology, health promotion) and expertise relevant to managing the PHB. Editorial Board members should be:

- recognized as qualified experts in the field of public health,
- willing to participate in PHB activities, including review and solicitation of articles and establishing policies and procedures, and
- willing to network and promote the PHB.

The Editorial Board can add credibility to the PHB. It is beneficial to include member names in each issue and include their biographies on the PHB website.


Develop standard operating procedures

SOPs ensure processes are appropriate, efficient, and contribute to quality. Each task in a process is documented to protect against adverse effects of staff turnover and changes in leadership. SOPs also ensure that important data are recorded so the processes can be improved over time. Priority SOPs are described below.

Establishing and using a government clearance mechanism. A government clearance mechanism is an example of an SOP. The PHB is the voice of the government, and therefore, everything in the document must be thoroughly vetted scientifically and cleared for publication by the government as consistent with its plans and policies. Steps in this SOP ensure the highest scientific quality and concordance between statements and recommendations in the publication and those established by MOH policy.

The clearance chain must be efficient so that the process does not delay publication of urgent findings of immediate relevance to the practice of medicine or the promotion of public health. The government clearance mechanism must:

1. facilitate sharing information about national public health problems with the public,
2. rapidly verify that the facts in a publication are correct, and
3. confirm that recommendations are consistent with government policy.



Accessing surveillance data. Obtaining permission to access and publish data is one of the most difficult challenges to overcome, especially when the data are the product of another organization or MOH department. Working in collaboration with the gatekeepers of data to develop SOPs for accessing and publishing data, and then strictly adhering to the SOPs, will help to build trust, avoid delays, and ensure content is timely and relevant.

Identifying sources of content. To ensure regular publication of the PHB, processes are put in place to identify and secure content in a timely and consistent manner. Potential sources of content include Field Epidemiology Training Program resident reports, NGO and academic research, routine surveillance data analyses, evidence-based clinical or public health recommendations, policy decisions, and treatment guidelines. Content from other periodicals or countries can also be considered for publication in the PHB.

Receiving and reviewing unsolicited articles. When reviewing and receiving unsolicited articles, consideration is given to information that is useful or of special interest to readers in the public health community, clinicians, researchers, teachers and students, and the news media. Reports should be based on science, especially epidemiology, or on public health policy or practice. These criteria are included in the Editorial Policy. Submissions that are generally not appropriate include:

1. reports of data or outbreaks that are not recent,
2. papers that are primarily theoretical or speculative,
3. reports on highly specialized topics, and
4. reports that use complex analytical methods not likely to be fully understood by most non-specialist physicians or public health workers.

Reviewing articles and maintaining a supply of quality

content. The review process should be efficient and continuous to maintain the supply of quality content. Articles that are time-sensitive (e.g., guidelines for managing outbreaks) should be fast-tracked through the review and clearance processes and published immediately after clearance in electronic format.

Articles submitted for consideration should go through at least a three-step review process using criteria established by the Editor-in-Chief (EIC) or Editorial Board. First, PHB staff or the Editorial Board review articles for relevance, accuracy, and readability. Second, articles that pass the first step are sent to SMEs, who provide feedback to the authors and recommend whether or not to publish. Third, authors resubmit their revised articles to the EIC or Editorial Board for final review.

Very few articles are accepted without being sent back to the author for revisions at least once. Because authors and reviewers are busy people, they cannot be routinely expected to complete their review or revisions in fewer than 7 days, and might need as many as 30 days. Most articles will require 10 to 12 weeks to complete the review process. Careful planning is necessary to ensure a supply of quality articles for each issue (see section, “Prioritize quality over quantity”). Resource Box 1 provides links to reviewer training materials.

RESOURCE BOX 1: TRAINING MATERIAL FOR REVIEWERS

The BMJ and Wiley have made available training materials on their websites on how to review a manuscript. The links also include information on the peer-review process:

The BMJ – <https://www.bmj.com/about-bmj/resources-reviewers/training-materials>

Wiley – <https://authorservices.wiley.com/Reviewers/journal-reviewers/becoming-a-reviewer.html/peer-review-training.html>

Developing and maintaining a style guide for publication.

A style guide is used by the editors to ensure a consistent style that makes the PHB more professional. It also saves time, because the writers, reviewers, and editors are working with the same set of guidelines. Resource Box 2 provides links to some style guides.

Producing, maintaining, and protecting distribution lists.

The distribution list is one of the most important resources of the PHB. Therefore, SOPs are important to develop, maintain, and protect the distribution list and other contact databases (e.g., SMEs, vendors).

Disseminating information to the media.

Media outlets provide important channels to disseminate information quickly and widely to a variety of audiences. Journalists are always looking for good stories. However, not all journalists have the skills to identify key messages in a scientific report and translate them into articles for the public. Articles with clear, concise, plain, and explicit language (see Resource Box 3) are more likely to be disseminated and interpreted correctly. Staff should also produce press releases with ancillary materials for selected articles and share them with the media in advance of publication. Government clearance of the press release will be necessary.

Archiving past publications in searchable formats.

A dedicated PHB webpage helps to make current and past issues accessible and easily discoverable via search engines like Google and Google Scholar. Communication plans (*see Annex E*) should include strategies for indexing the PHB articles on MEDLINE's PubMed and Clarivate Analytics' Web of Science. PubMed and Web of Science are search engines of databases of published articles. Inclusion in the Web of Science is a prerequisite for a journal impact factor from Clarivate. A high impact factor identifies a journal as influential and important. A high impact factor also makes the journal desirable to authors. Resource Box 4 provides links to information on how to index journals.

RESOURCE BOX 2. LINKS TO JOURNAL WRITING STYLES

The BMJ House Style –
<http://www.bmj.com/about-bmj/resources-authors/house-style>

AMA Manual of Style –
<http://www.amamanualofstyle.com>

The Council of Science Editors Style –
<http://www.scientificstyleandformat.org/Home.html>

RESOURCE BOX 3. ELEMENTS OF PLAIN LANGUAGE

1. Logical organization
 - Start with the key (most important) message
 - Include headings
2. Word choice
 - Use short sentences and paragraphs
 - Use common, everyday words, when possible avoiding unnecessary jargon
 - Avoid redundancies and circumlocutions

More resources on using plain language are available at CDC's Clear Communication Index webpage (<https://www.cdc.gov/ccindex/index.html>).

RESOURCE BOX 4. JOURNAL INDEXES AND IMPACT FACTOR

Journal Indexes

Medline Indexing at US National Library of Medicine –
https://www.nlm.nih.gov/pubs/factsheets/j_sel_faq.html

Google Scholar – <http://www.google.com/intl/en/scholar/citations.html#overview>;

Clarivate Impact Factor – <http://ip-science.thomsonreuters.com/info/journalsubmission-front/>
and <http://ip-science.thomsonreuters.com/mjl/>

“The impact factor of an academic journal is a measure reflecting the yearly average number of citations to recent articles published in that journal. It is frequently used as a proxy for the relative importance of a journal within its field; journals with higher impact factors are often deemed to be more important than those with lower ones. Impact factors have a large, but controversial, influence on the way published scientific research is perceived and evaluated”

(https://en.wikipedia.org/wiki/Impact_factor).

Publish the public health bulletin

Publishing PHBs includes routine activities reflected in the previous section on SOPs. It also includes several start-up activities, such as branding and naming the PHB. The influence of the PHB is directly tied to the brand and the regard in which it is held. To build a brand, adhere to quality control procedures (e.g., completing the review process and using a style guide) and choose the name of the publication with great care (e.g., is the name memorable, and will the name be confused with other publications or products).

Another start-up activity is naming the publisher. The publisher owns the publication, selects its EIC, and has ultimate responsibility for the publication. If the publisher is the MOH, identify an individual within the Ministry to lead the effort. Other start-up activities include deciding on the initial frequency of publications and the target date for the first issue, establishing the Editorial Board, developing templates, and identifying or developing a style guide.

Challenges are expected. Planning for challenges helps to mitigate their impact on the program. Table 1 summarizes challenges and suggested solutions.



Health education on hygiene in Cambodia

Table 1 – PHB Production Challenges and Solutions

Challenges	Solutions
1. Finding a permanent, full-time editor-in-chief with leadership skills and a vision for the PHB who can evaluate the scientific quality of submissions, supervise editors and production staff, and maintain the momentum required to publish on a regular basis	<ul style="list-style-type: none"> • Circulate position description widely (see Annex D) • Work with consultants until a permanent editor-in-chief is hired
2. Obtaining sufficient publishable content	<ul style="list-style-type: none"> • In the absence of outbreaks and in between surveillance summaries, interesting reports from other countries might be reprinted or summarized with a commentary
3. Incentivizing the government to support the publication	<ul style="list-style-type: none"> • Communicate regularly with stakeholders within the ministry to understand their needs and how the PHB can serve those needs
4. Incentivizing authors to submit their work	<ul style="list-style-type: none"> • Increase incentives for authors by naming them as authors, rather than contributors • Fulfill requirements for obtaining a journal impact factor • Provide support to less-experienced authors

PRIORITIZE QUALITY OVER QUANTITY

Quality is always prioritized over quantity. Building the reputation of the publication, and its attractiveness to authors and stakeholders, will depend on quality of the content, not the amount of content. Quality is based on:

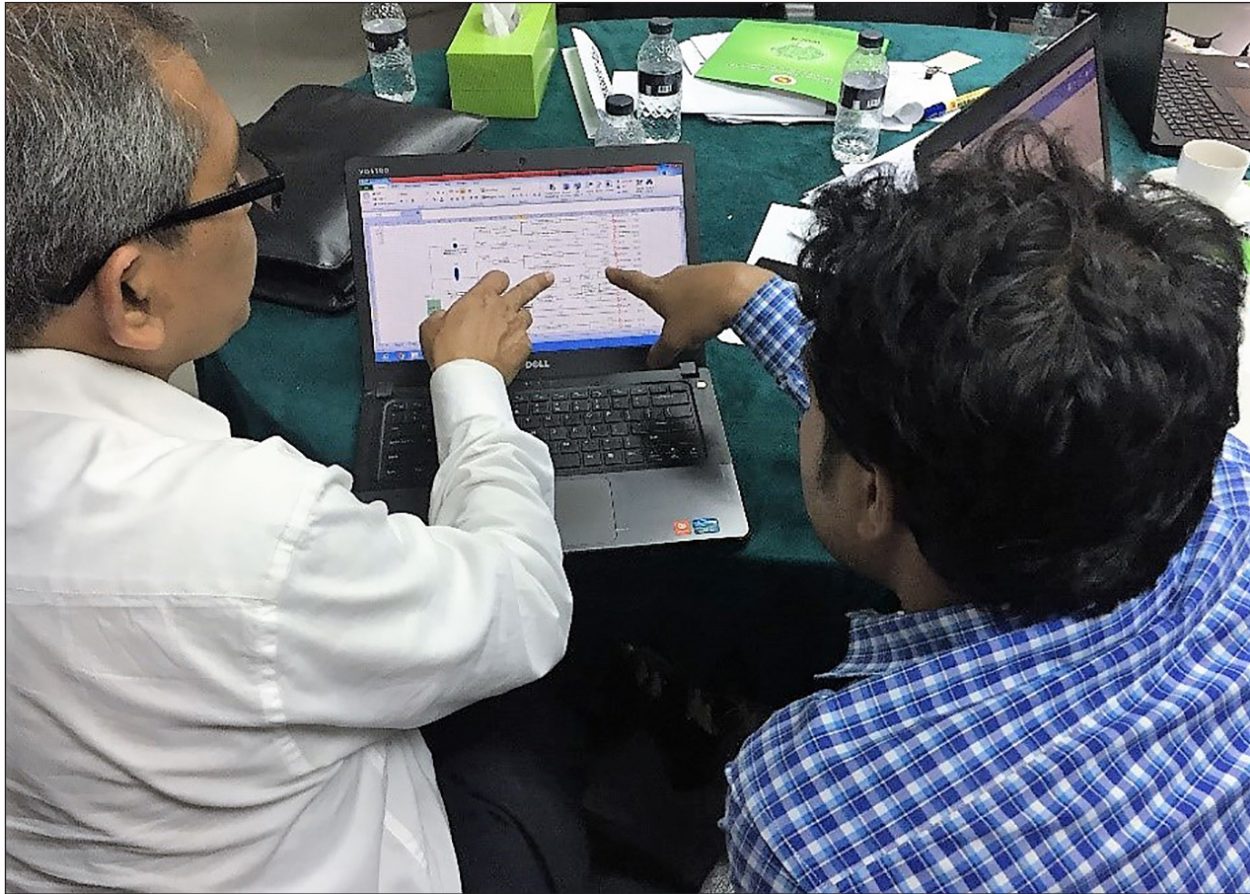
1. Relevance – Is the article timely, and does it address a high-priority concern?
2. Accuracy – Is the article scientifically accurate?
3. Readability – Is the article well-written and interesting?

One of the most important decisions an EIC makes is how often to publish issues. This decision depends on available resources, including supply of quality articles. The decision also depends on the capacity of expert reviewers, the Editorial Board, and approval mechanisms to review and clear articles in a timely manner.

Similarly, an EIC should consider quality over quantity when deciding the number of articles to publish per issue. Publishing PHBs with only a few issues has the following advantages:

1. the intended audience is much more likely to read the bulletin if it has only a few articles,
2. the supply of articles is not exhausted within one or two issues, and
3. reviewers and the Editorial Board have sufficient time to work with authors of articles that require extensive editing.

Once capacity and supply chains are enhanced, PHBs can be published more often and/or with more content.



Reviewing data for a policy brief in Bangladesh

Disseminate the public health bulletin

The PHB will only serve its purpose if it is widely disseminated and read by targeted audiences. The first step is understanding how each intended audience accesses information. For the most part, audiences will either receive the bulletins via e-mail (i.e., the publication is pushed out to audiences via e-mail) or access them via a dedicated website on the Internet. Electronic formats are less expensive to produce. However, if resources are available, it may be beneficial to print a limited number of copies to give to policy makers and other stakeholders and to circulate at conferences to promote awareness of the publication. Use distribution lists to push the PHB out to intended audiences. SOPs guide maintenance of the distribution lists (see previous section). To enable audiences to access the PHB from the Internet, create a dedicated website that is easily found via obvious search words (e.g., Country Name + Public Health Bulletin). Past publications should also be accessible on this website.

Monitor and evaluate processes and outcomes

Good work plans include objectives with measurable indicators that are continuously monitored to check progress and improve SOPs (See Resource Box 5 and Annex B). If the PHB is circulated via an electronic newsletter, e-mail marketing platforms often provide data on open rates, click rates and patterns, and the number of times an article is shared. Similarly, services are available to track website traffic. An example is Google Analytics. Periodically, electronic surveys can be sent out to solicit feedback from individuals on the distribution list. Metrics should be analyzed to modify strategies, work plans, and SOPs.

RESOURCE BOX 5. PUBLIC HEALTH BULLETIN INDICATORS

Outcome Indicators

1. Number of PHB issues published per year (actual vs planned)
2. Percent increase in the number of readers per each subsequent issue
3. Percent increase in the Google analytics' click-through rate
4. Bulletin is indexed in PubMed (long-term— ≥ 5 years)
5. Results of annual survey of readership

Process Indicators

1. Number of issues published on time
2. Proportion of articles reviewed and approved by editorial board prior to publication per issue and per year
3. Number of articles submitted for publication stratified by author/institution type (e.g., student, professor, NGO, government)
4. Number of articles published per type (e.g., disease surveillance reports, case studies, public health guidelines)
5. Number of articles picked-up by media outlets



Discussing research findings in Ghana

ANNEX A – PUBLIC HEALTH BULLETIN ACTIVITIES

The activities listed in tables A.1-A.6 focus on securing resources and establishing processes to achieve objectives listed in the third column.

Table A.1 – Generate political will

Resource	Activity	Objective
Political will	Prepare and present concept note for discussion with high level leadership (e.g., Director General, Permanent Secretary)	Government recognizes value of PHBs and provides resources for production and sustainability
	Prepare and present work plan with budget for approval by leadership	
	Regularly review content of future PHB with leadership (i.e., keep leadership informed)	
	Identify the publisher	

Table A.2 – Mobilize resources

Resource	Activity	Objective
Funding	Prepare proposal with budget	Resources, including staff, partners, equipment, and funding are identified, secured, and maintained
	Conduct resource gap analysis	
	Identify potential donors including government	
	Circulate funding proposals and follow-up in accordance with proposal guidelines	
Partners	Identify potential partners (e.g., universities, NGOs, research institutions)	
	Prepare PHB concept note and circulate to partners	
	Meet with partners to discuss opportunities for collaboration	
	Follow-up on action items established during meetings with partners	
Subject-matter Experts (SMEs)	Identify and incentivize (e.g., authorship of published articles) SMEs to contribute articles and review articles from other authors	
Office Space	Secure furnished office space from MOH to house staff	
Staff	Produce and finalize job descriptions	
	Identify existing personnel to take on roles or plan to hire new staff	
	Train staff	
Equipment & Supplies	Generate list of equipment and collect proformas	
	Secure approval for purchasing equipment	
	Purchase equipment	

Table A.3 – Develop standard operating procedures

Resource	Activity	Objective
SOPs	Review current SOPs and/or relevant SOPs of parent organization	Processes are documented and standardized to facilitate timely production of a high-quality PHB
	Draft SOPs and ensure they complement those of the parent organization if relevant	
	Review draft SOPs with staff and request their input	
	Revise SOPs based on staff input	
	Follow protocol of parent organization to finalize SOPs	
Editorial Board / Oversight Committee	Produce governance document to guide member activities	
	In collaboration with the publisher, identify candidates to become members	
	Invite candidates to become members	
	Establish recurring schedule of meetings	

Table A.4 – Publish public health bulletin

Resource	Activity	Objective
Brand	Select PHB name and logo	A PHB with accurate and relevant information published on time at regular intervals
	Publisher approves name and logo	
	Select style guide	
	Produce templates	
Surveillance data	Access surveillance data according to SOP	
	Prepare graphs, charts, and tables according to style guide and templates	
Content	Plan content for future PHBs	
	Solicit articles according to SOPs	
	Review and edit articles according to SOPs	
	Produce draft PHB for review and approval according to SOPs	
	Seek final clearance from government according to SOP	

Table A.5 - Disseminate public health bulletin

Resource	Activity	Objective
Contact database	Assign one person to develop and maintain database	PHB is accessible and accessed by all stakeholders, including the public and the media
	Design database (decide on data elements to be included)	
	Develop and maintain database according to SOP	
E-mail template	Prepare PHB for dissemination via e-mail	
Website	Identify and hire consultant with experience in developing websites for PHBs	
	Work with consultant to develop requirements for website prior to building it	
	Identify and hire consultant to develop website according to requirements	
	Prepare PHB for publication on website	
Media outlets	Identify respected private and government-sponsored media outlets	
	Develop disseminate press releases according to the SOPs	

Table A.6 – Monitor and Evaluate

Resource	Activity	Objective
Indicators	Establish indicators to be measured (e.g., number of PHB issues published each year and on time, e-mail open rate and click-through rate, website traffic [i.e., number of visitors per page] impact factor rating, % of articles cited in other publications)	Established indicators are measurable and continuously monitored to improve performance
Data collection tools	Prepare tools (e.g., surveys)	
Data	Collect data	
	Analyze data and disseminate results to PHB team	
Revised SOPs and strategies	Review results with PHB team	
	Revise and finalize SOPs accordingly	

ANNEX B – LOGIC MODELS AND WORK PLANS

Logic models (Figure B.1) are high-level work plans (Figures B.2 and B.3). Logic models and work plans present the same information differently. Logic models are helpful when presenting to leadership and/or donors the relationships among available inputs, planned activities, and desired outputs and outcomes of an entire project. Work plans break the project into smaller or more detailed components and assign them to different teams.

Figure B.1 – Sample Logic Model

Inputs	Activities	Output	Short-term Outcomes	Long-term Outcome
<ul style="list-style-type: none"> Political will Staff Stakeholders Supplies Communication channels Contact database Internet 	<ul style="list-style-type: none"> Identify content (i.e., surveillance data, policy briefs, research) Review articles Clear articles through government clearance mechanism Produce PHB Monitor and evaluate outputs and outcomes Revise SOPs accordingly 	<p>An easily accessible PHB with accurate and relevant information published on time at regular intervals</p>	<ul style="list-style-type: none"> Health workers, the public, and policy makers are informed on how to protect health Health workers and the public are enabled to take action to improve health Policies are enacted to improve the environment and behaviors 	<p>Improved health</p>

Regarding logic model components, inputs and activities represent planned work, and outputs and outcomes reflect the intended results. Work plan components (with the corresponding logic model component in parentheses) are:

1. Resources (Inputs) – Resources are anything that is necessary to achieve objectives (e.g., technical assistance, personnel time, equipment, supplies, meeting venues). Budgets should align with resources listed in work plan.
2. Activities (Activities) – Activities are action items to be performed to achieve objectives. Unlike logic models, work plans include points of contact (POCs) (i.e., the person responsible for each activity) and a timeline (i.e., when the activity will start and end).
3. Objectives (Outputs) – Objectives are tangible and SMART (Specific, Measurable, Achievable, Relevant, and Time-bound). Assigning indicators ensures SMART objectives.
4. Goals (Outcomes) – Goals focus on the big picture – they are the desired outcomes of the of the work plan.

Figures B.2 and B.3 provide a template and examples of a work plan, respectively.

Figure B.2 – Work Plan Template

Goal: (state desired outcome of work plan)

Objective: (state SMART objective – there can be multiple objectives for each goal)

Indicators: (list outputs or deliverables for each objective)

Complete the following table for each objective

Activity	Resources	POC	Start Date	End Date

Figure B.3 – Example Work Plans

Example 1 – Increase readership of the public health bulletin

The following work plan is an example of activities carried out sequentially to achieve a goal. Assign a person with authority to ensure the project stays on track.

Goal – Increase readership of PHB.

Objectives –

- By Month 3, PHB distribution channels will be established and used
- By Month 6, media campaign will be designed and implemented
- Readership trends are evaluated and documented in Months 6-12

Indicators –

- Distribution list is established
- Distribution list is updated each month
- % of recipients opening e-mail increases from 10% to 50%
- All recipients that open e-mail will click on at least one article
- The number of website hits per month increases from 10 to 50

Activity	Resources	POC	Start Date	End Date
1. Establish an SOP for developing and maintaining the distribution list	<ul style="list-style-type: none"> • Knowledge of existing SOPs and best practices • Database • Personnel time 	Managing Editor	Month 1	Month 2
2. Establish and update distribution list	<ul style="list-style-type: none"> • Personnel time 	Managing Editor	Monthly	Ongoing
3. Identify and secure contract with e-mail marketing service	<ul style="list-style-type: none"> • Requirements for disseminating an electronic PHB • Personnel time • Funding 	Managing Editor	Month 1	Month 2
4. Design templates for electronic and printed versions of PHB	<ul style="list-style-type: none"> • Software • Personnel time • Training to maintain template • Funding 	Desktop Publisher	Month 1	Month 3
5. Establish website	<ul style="list-style-type: none"> • Consultant to develop requirements for website • Consultant to design website • Funding • Personnel time • Training to maintain website 	Managing Editor	Month 1	Month 3
6. Design social marketing campaign using Facebook, Twitter, and WhatsApp	<ul style="list-style-type: none"> • Consultant to design campaign • Trained staff to maintain social media websites • Funding 	Managing Editor	Month 3	Month 6
7. Establish baseline for process indicators	<ul style="list-style-type: none"> • Google Analytics (and other relevant data services) • Personnel time 	Managing Editor	Month 6	Month 6
8. Implement social marketing campaign using Facebook, Twitter, WhatsApp	<ul style="list-style-type: none"> • Personnel time 	Managing Editor	Month 6	Month 9
9. Evaluate trends regarding reach of PHB using Google Analytics, and other e-mail marketing services	<ul style="list-style-type: none"> • Consultant to train staff to collect and analyze data and generate report • Funding 	Managing Editor	Following publication of each issue	Ongoing
10. Share results with team	<ul style="list-style-type: none"> • Personnel time 	Managing Editor	Following publication of each issue	Ongoing
11. Revise SOPs and work plans accordingly	<ul style="list-style-type: none"> • Personnel time 	Editor-in-Chief	As appropriate	Month 12

Example 2 – The PHB is fully funded and supported by the government

The following work plan is an example of activities carried out continuously and independently of one another to promote the PHB. The list is not exhaustive and more innovative activities are possible depending on the country context. Establishing process indicators helps to track the project.

Goal – The PHB is fully funded and supported by the government

Objective – By year 3, MOH provides 100% of resources needed to regularly publish the PHB indefinitely

Process Indicators –

- PHB talking points are developed for each target audience
- PHBs are circulated to leadership and policy makers
- Editor-in-Chief has one meeting with leadership each month to discuss PHB

Outcome Indicators –

- A directive or policy is established to support PHB
- The PHB is established as a component of the national strategic plan
- The PHB is a line item in the national budget

Activity	Resources	POC	Start Date	End Date
1. Identify and act on opportunities to promote the PHB (e.g., provide copies of PHB to leadership and policy makers; track increases in readership and share information with leadership)	Personnel time	Editor-in-Chief	On-going	On-going
2. Document cases when published PHB articles lead to policy changes that saved resources, improved results of campaigns, or saved lives	Personnel time	Editor-in-Chief	On-going	On-going
3. Investigate how to make the PHB part of the national strategy	Personnel time	Editor-in-Chief	On-going	On-going
4. Become a member of the national strategy writing committee	Personnel time	Editor-in-Chief	On-going	On-going
5. Develop talking points to communicate to colleagues in other departments how the PHB supports their work	Personnel time	Managing Editor	On-going	On-going
6. Identify supporters that can help promote the PHB	Personnel time	Editor-in-Chief	On-going	On-going

ANNEX C – STARTUP AND CONTINUING COSTS OF PUBLISHING A PUBLIC HEALTH BULLETIN

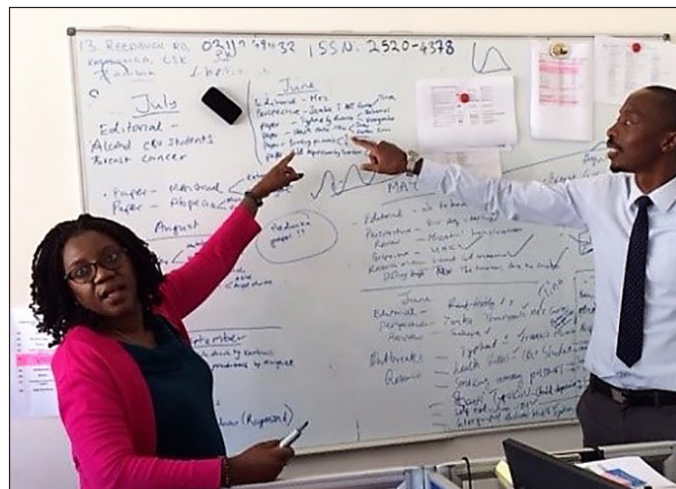
A budget template is provided below. Costs depend on local circumstances, but consideration should be given to the following items.

Startup costs

- Computers for each staff member. Any up-to-date, midrange business computer with at least one large [>20 inch] monitor that is supported in country will suffice. Editors should have dual displays.
- Software (e.g., operating system such as Windows 10 64-bit, Microsoft Office, antivirus software, and Adobe Acrobat)
- Printers for each staff member. Any up-to-date, midrange home/office printer with readily available ink or toner will suffice. If large numbers of print copies of the PHB are needed, and contract printing is not cost-efficient, then a small production printer will be needed as well.
- One router for the office
- Installation of high speed internet connection
- Furniture, including wipe boards, projectors, etc.

Continuing costs

- Salaries
- Ink or toner for printers
- Paper, pens, staples, file folders, etc.
- High speed internet access
- Office rent
- Domain name if not on MOH server
- Web page hosting if not on dedicated MOH server
- Paper
- Postage
- Staff continuing education opportunities



Public Health Bulletin Editors plan next issue of **The Health Press Zambia**

Optional one-time costs

- Staff training
- Mass mailing of initial issue(s)

PHB Budget Template

Item	Frequency of Expense (per year or one time only)		Number of Items /	Unit Cost	Total Cost (USD)	Source (indicate in-kind if already secured)	Notes
Public Health Bulletin							
Public Health Bulletin (PHB) staff							
Advertising position descriptions	1	One-time Only	4				
Editor in Chief	12	Month	1				
Managing Editor	12		1				
Desktop Publisher	12		1				
PHB Staff Subtotal							
PHB - Training							
Venue Logistics	2	Year	15				
Per diem	2	Year	15				
Identified professional conferences for PHB staff	1	Year	2				
PHB staff training	2	Year	2				
PHB - Training Subtotal							
PHB - Office Equipment							
Rent	12	Month				in-kind - MOH	
Furniture	1	One-time Only				in-kind - MOH	
Laptops	3	One-time Only					
Phones							
Printer							
Monitors							
Office supplies (e.g., stationary, paper clips, white boards, pens)							
Adobe Professional							
Plagiarism software							
Microsoft Professional Software							
Server							
Routers							
Internet subscription							
External hard drive							
IP Address							
Generator							
PHB - Office Equipment Subtotal							
PHB - Steering Committee or Board of Editors Meeting							
Venue							
Logistics							
PHB - Meeting Subtotal							
PHB -Publication							
Launching ceremony							
Translation							
Type-setting and design							
Printing							
Postage							
E-mail marketing subscription							
PHB Publication Subtotal							
PHB - Website							
Domain name							
Consultant to develop website requirements							
Consultant to develop website							
Website updates							
PHB-Website Subtotal							
PHB TOTAL							

ANNEX D – SAMPLE JOB DESCRIPTIONS FOR KEY PUBLIC HEALTH BULLETIN STAFF

Editor-in-Chief

The Editor-in-Chief (EIC) is the principal architect of the scientific content of the public health bulletin (PHB) and has ultimate responsibility for the scientific integrity of the publication. The EIC sets the tone and policies for the publication and is involved in budgeting, hiring, and strategic planning. The EIC reviews and edits all content or delegates review and editing tasks to one or more external reviewers or managing editors. The EIC either solicits articles or ensures that prospective authors are aware of the advantages of submitting their work to the PHB and that the submission and review processes are user friendly. The EIC should be a well-regarded, experienced scientist or public health professional with experience and training in medicine, epidemiology, or both. The EIC consults with Ministry of Health (MOH) officials on substantive decisions.

DESIRABLE EXPERIENCE

- Completion of a field epidemiology training program AND at least 5-years work experience in medicine or public health AND at least two first-authored peer-reviewed scientific publications
- OR
- At least 10-years work experience in medicine or public health and at least four first-authored peer-reviewed scientific publications

EDUCATION REQUIREMENTS

- PhD, medical degree, masters degree, or equivalent in a scientific field (biology, epidemiology, medicine, or comparable) from an accredited university



Polio eradication campaign in Pakistan

SKILLS AND QUALIFICATIONS

- High personal and scientific standards
- Enthusiasm
- Excellent interpersonal communication skills
- Excellent writing and editing skills
- Knowledge of scientific research, preferably epidemiology
- Experience in scientific writing and editing

DUTIES AND RESPONSIBILITIES

- Work with in-country MOH staff to review content for the PHB
- Supervise managing editor and desktop publisher in the production of the PHB
- Provide scientific guidance as the articles are developed
- Work with MOH to identify and select content for publication
- Actively promote the bulletin to the public, elected officials, the press, MOH staff, and academic and medical communities
- Work with staff to set short and long-term goals, objectives, and strategies for the PHB

REQUIREMENTS

- Available to devote at least 40 hours per week to direct the production of the PHB
- Meet educational and experience requirements as stated above



Using data to chart the path to safe water in Artibonite, Haiti



Managing Editor

The Managing Editor is responsible for day-to-day operations, supervision of the production staff, and management of all finances, and therefore should have project management experience. The Managing Editor and EIC might share the tasks of soliciting, managing, reviewing, and editing submissions. The Managing Editor is the primary copy editor for the PHB, oversees its production, and should be an experienced editor or a physician, scientist, or public health official with excellent writing and editing skills.

MINIMUM QUALIFICATIONS

- At least 5-years work experience managing teams, and planning and implementing projects and budgets. Experience working with the MOH is a plus
- At least 5-years work experience as a health educator or health journalist in medicine or public health OR at least two first-authored, peer-reviewed scientific publications

EDUCATION REQUIREMENTS

- Master's degree or higher (or equivalent) in a scientific field (biology, epidemiology, medicine, or comparable) from an accredited university

SKILLS AND QUALIFICATIONS

- Excellent writing and editing skills
- Enthusiasm
- Knowledge of scientific research, preferably epidemiology
- Experience writing and editing articles published in journals in English

DUTIES AND RESPONSIBILITIES

- Work with in-country MOH staff to review content for the PHB
- Provide guidance to authors for preparing and submitting manuscripts
- Establish a system for effective and rapid review
- Make editorial decisions expeditiously
- Supervise desktop publisher in the production of the weekly epidemiology bulletin
- Provide scientific guidance as the articles are developed
- Work with MOH to identify and select content for publication

REQUIREMENTS

- Available to devote at least 40 hours per week to direct the production of the weekly epidemiology bulletin



Desktop Publisher

Depending on available resources, the Desktop Publisher could be an employee or a contractor. This person uses computer software to design, layout, and format pages for print and online publication of the public health bulletin (PHB). The Desktop Publisher will produce error-free, attractively laid out text, figures, and tables to meet a regular publication deadline and can produce early releases with a turn-around time of a few hours.

MINIMUM QUALIFICATIONS

- At least 2-years work experience in preparing copies for print and online distribution
- Scientific or public health training a plus

EDUCATION REQUIREMENTS

- Diploma or bachelor's degree (graphic design, graphic arts, communication, or comparable) **and**
- At least 2-years work experience in print and online copy distribution

SKILLS AND QUALIFICATIONS

- Experience with computer software for drafting, graphic art, graphic design, graphic communications, illustration, office technology, and photojournalism
- Strong copy editing and proofreading skills
- Strong attention to detail
- Enthusiasm

DUTIES AND RESPONSIBILITIES

- Produce error-free, attractively laid out text, figures, and tables
- Meet strict deadlines oftentimes with a turn-around of a few hours
- Use of desktop publishing software (e.g., Microsoft Word, Adobe Acrobat)

REQUIREMENTS

- Available to devote at least 40 hours per week to assist in the production of the PHB
- Fluency in spoken and written English



ANNEX E – PHB COMMUNICATIONS PLAN TEMPLATE

Introduction

There are many reasons why a public health bulletin (PHB) requires a communications plan, some of which are listed below.

1. to increase readership
2. to increase the number of manuscripts submitted that meet the criteria of the PHB
3. to disseminate information rapidly
4. to secure financial and political support
5. to get indexed

A communications plan is part of or an addendum to a comprehensive strategic plan, which establishes the mission, vision, goals, and objectives of the PHB. Both documents are based on a situational analysis that identifies the need for a PHB, other complementary products, stakeholders, and resources.

This document presents a step-by-step process to develop a PHB communications plan so that valuable resources are efficiently utilized to achieve PHB goals.

Step 1: Identify the PHB's Stakeholders


A stakeholder is anyone who has an interest in the PHB and whom you want to have an interest in the PHB. For example, some stakeholders (e.g., authors, readers, media channels) may not be aware that they are, indeed, stakeholders, and so a communications plan should focus on educating these groups. Potential stakeholders include:

- Staff within your department
- Heads of MOH departments
- District and regional level health management teams
- Deans and professors of schools of public health and medicine
- Researchers
- Donors
- Professional societies
- Other PHBs or journals
- NGOs working in health and development, including World Health Organization (WHO)
- Media
- Members of parliament
- Readers /general public
- Authors
- Project funders (CDC, Bloomberg)

Step 2: Assess the Level of Influence the Stakeholder has on the PHB

Factors to consider when determining whether the stakeholder has high, medium, or low influence are:

1. Do they have control over financial resources?
2. Can they influence support for the PHB? Even non-supporters are important.
3. What contributions do they make to the PHB?
4. Which stakeholders are most affected by the PHB?



Once the stakeholders are ranked according to level of influence, decisions can be made regarding allocation of resources. Some resources should be directed toward those stakeholders that have limited influence or are least affected by the PHB because they do have the potential to put up roadblocks if they are not kept informed (e.g., the person who neglects to put your presentation on the agenda of an important meeting).

Step 3: List the Key Interests of the Stakeholders

Different stakeholders (see list provided for Step 1) will have different expectations of the PHB and its team. It is important to understand what those expectations are, and at the very least, a communications plan should include regular meetings with these stakeholders to address their interests.

Step 4: Develop Products / Talking Points

Different talking points and products are developed to accommodate the interests of each important stakeholder. The primary product is, of course, the PHB. Potential authors, one of the primary stakeholders, may be concerned that the PHB does not, yet, have a high impact factor. An appropriate strategy for a new PHB is to build a good reputation by providing quality services to the authors. Examples of services and products from WHO's "Manual for Editors of Health Science Journals"¹ include:

1. working with authors, especially inexperienced authors, to produce good manuscripts (e.g., writing workshops),
2. providing clear, concise author guidelines,
3. defining and maintaining high publication standards,
4. developing an effective online submission process, and
5. defining and maintaining high standards of effective editorial processes.

Appropriate talking points to authors include:

1. It takes less time to produce and publish a manuscript in the PHB.
2. The audience is more targeted and therefore, publication in the PHB can result in action to improve health status and save lives. For example, the article is more likely to be read by a member of parliament or a minister of health, who can influence policy.
3. Abstracts of published articles can be reproduced in the PHB with the copyright holder's permission.

Additional talking points can list the services provided.

Step 5: Identify Communication Channels for Dissemination

It is not practical to expect people to find the PHB on their own or to periodically check the website. Social media like Facebook and Twitter help, but they are not enough.

Having a strategy to disseminate the PHB is a must. As mentioned previously in this document, distribution lists must be created, maintained, and protected. The dissemination list is created using the list of stakeholders developed in Step 1. E-mail alerts must be sent out every time an issue is published using

¹ WHO (2009). Manual for Editors of Health Science Journals. World Health Organization – Regional Office for the Eastern Mediterranean, Cairo (accessed on March 15, 2018 <http://applications.emro.who.int/dsaf/dsa1034.pdf>).



the dissemination list. According to the “Manual for Editors of Health Science Journals,” other channels for dissemination include:

1. making good use of the editorial board to act as PHB representatives and attract contributions,
2. providing the editorial board with a supply of leaflets to hand out at meetings,
3. attending conferences and meetings,
4. asking members of the editorial board to include their position on the editorial board as part of their e-mail “signature,”
5. e-mailing target groups with information about the latest issue and including an electronic copy,
6. maintaining a dedicated webpage,
7. hosting a launching event, and
8. establishing links to other relevant websites.

If the target group has a high level of influence, it always helps to send a personal note with a copy of the PHB. For high-level decision-makers, hand deliver a print copy of the PHB.

Don't forget the channels controlled by the media (and bloggers). The media is a stakeholder with high influence that controls important dissemination channels. Regular media briefings and press kits are key dissemination strategies that should go in every communications plan.² Other dissemination channels include workshops and one-on-one meetings.

Step 6: Determine Frequency

To get the attention of key stakeholders, interact with them on multiple occasions. Determine the frequency of interactions that is appropriate for each stakeholder to facilitate planning and ensure resources are available. For example, it may be necessary to meet with the Editorial Board quarterly, the Minister of Health monthly, and the media when there is an event of public health importance.

Step 7: Identify Resources

Identify resources to implement the communications plan. For example, for meetings and workshops, resources are needed to secure a venue and provide refreshments if the meeting is longer than half a day. Start-up costs for all PHBs include investments in developing a website, producing a distribution list (See Step 5), and training mentors for authors.

Step 8: Establish Monitoring Indicators

The monitoring indicators should answer the following questions:

- Have we achieved our objectives?
- How successful were we in reaching our targeted audiences?
- Were the dissemination channels effective?
- Were there any policy changes as a result of information in the PHB?
- How many articles were referenced by the media or bloggers?

² LevelTen (2007). The seven elements of a press release: everything you need to know. <https://getlevelten.com/blog/taylor-c/seven-elements-press-release-everything-you-need-know>. Accessed 18 June 2018.

Putting it All Together

Use Table E.1 to create your communications plan. Each column in the table represents a step outlined in this document.

Table E.1. Sample PHB Communications Plan

Step 1 Identify Stakeholder and Describe Role	Step 2 Determine Level of Stakeholder Influence	Step 3 List Key Interests and Issues	Step 4 Develop Talking Points / Products	Step 5 Identify Communication Channels for Dissemination	Step 6 Determine Frequency	Step 7 Identify Resources	Step 8 Establish Monitoring Indicators
Media – can help to disseminate key messages of PHB issues	High	Want newsworthy articles to publish	<ul style="list-style-type: none"> • Press kits • Media workshop 	<ul style="list-style-type: none"> • E-mail • Briefings 	As needed – when matters of public health importance arise	<ul style="list-style-type: none"> • Venue and facilitator for workshop • Contacts of media channels • Time to meet face-to-face to promote the PHB 	Number of PHB articles referenced by the media
Minister of Health – Champion of PHB	High	PHB is his/her primary form of communication to the public	The PHB provides health professionals and the public an authoritative, timely, and influential source of information and recommendations for actions to minimize public health threats.	<ul style="list-style-type: none"> • Face-to-face meetings • E-mail updates of PHB accomplishments • Print copies of the PHB 	As needed	Minimal	<ul style="list-style-type: none"> • PHB is included in MOH strategic plan • PHB has a line item in the MOH budget
Policy makers (members of parliament, ministers, permanent secretaries) can help ensure sustainability of PHB	High	Want reader-friendly, practical information that they can instantly use.	The PHB	<ul style="list-style-type: none"> • Print copies of PHB • Invitation to launching and other key events 	As needed	Contact list	<ul style="list-style-type: none"> • PHB is included in MOH strategic plan • PHB has a line item in the MOH budget

