

# 25 March 2024

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#### Adaptation to Changing Public Health Needs:

Recognizing the dynamic nature of public health challenges, there's a call for curricula to be responsive to evolving threats such as climate change, emerging infectious diseases, and health disparities. This involves continuous curriculum updates based on the latest evidence and best practices, ensuring that public health professionals are well-equipped to address current and future challenges.

#### Cultivation of Critical Thinking and Problem-Solving Skills:

Critical thinking, analytical skills, and problem-solving abilities are identified as core competencies necessary for public health professionals. The ability to assess information critically, make evidence-based decisions, and develop innovative solutions to complex health problems is crucial for the effective management of public health issues.

#### Ethical and Cultural Competency:

The need to equip public health professionals with the ability to ethically and competently serve diverse populations is emphasized, addressing health disparities and promoting equitable care. This includes understanding and respecting cultural differences and working towards reducing health inequities.

#### Global Health Security and Emergency Management:

The responses call for a focus on global health security, including better prevention, preparedness, response, and recovery from major disasters, conflicts, and pandemics. This aligns with the need for public health curricula to prepare professionals for a wide range of emergencies, emphasizing all-hazards risk management and the engagement of society as a whole.

#### Integration of New Technologies and Digital Health:

The incorporation of training on health technologies such as telemedicine, wearable devices, and digital health solutions is highlighted as a way to improve patient care and response efficiency. This reflects the growing role of technology in health care and the need for public health professionals to be proficient in its application.

#### Public Health Ethics and Equity:

There is an underlying theme of promoting public health ethics, equity, and social justice throughout the responses. This includes developing curricula that foster an understanding of the social determinants of health and the ethical implications of public health decisions and actions.

#### Enhancing Research and Evaluation Skills:

Strengthening research and evaluation skills is identified as a key objective, enabling graduates to contribute to the evidence base of public health, assess the impact of interventions, and engage in continuous quality improvement.

#### Addressing the New Normal and Emerging Global Threats:



### Comprehensive Preparedness and Response Frameworks:

The need for robust health emergency and disaster risk management frameworks that encompass policies, strategies, planning, coordination, and resource allocation is emphasized. These frameworks are critical for reducing health risks and vulnerabilities, particularly in the context of international health regulations, sustainable development goals, and global agreements on climate change.

### Evidence-based Decision Making and Research:

There's a strong emphasis on the importance of high-quality, fit-for-purpose research to inform policy, practice, and guidance in health emergency and disaster risk management. The updated WHO guidance, including new chapters on conducting research in the context of COVID-19, underlines the necessity of continuous improvement in the quality of research and its application to policy and practice.

### Rapid Adaptation and International Collaboration:

The ability to quickly adapt to crises, unexpected determinants, or consequences is highlighted as essential. This includes the importance of international collaborations and the alignment of global actions with national plans to ensure cohesive and effective responses to health emergencies.

### Supporting Frontline Healthcare Professionals:

Strategies to reduce fears and insecurities among healthcare professionals and patients are crucial. This includes preparing healthcare workers to lead with vulnerability during uncertain times and ensuring effective communication and support mechanisms are in place.

**Addressing Emerging Global Health Threats:** The text identifies key vectors of action, such as climate change, geopolitical instability, natural disasters, disease spread due to increased travel, and health issues arising from water and food scarcity. These areas require focused attention in public health strategies.

### Learning and Adaptation in Complex Systems:

Operating within complex adaptive systems and the importance of continuous learning, knowledge management, and adapting to changing circumstances are highlighted as critical for effective public health management.

### Enhanced Training on Neglected Public Health Issues:

There's an emphasis on improving knowledge, skills, and competencies related to overlooked public health issues, suggesting a need for a broader and more inclusive curriculum that addresses a wide range of public health challenges.

### Interdisciplinary Approach and Crisis Communication:

The integration of secure health technologies, disaster response training, interdisciplinary collaboration, and the development of effective crisis communication strategies are identified as key components of a resilient public health system.

### Global Health Security and System Strengthening:

The curriculum areas mentioned include global health security, emergency management, health system strengthening, and the mental and psychosocial impacts of crises. This suggests a comprehensive approach to building resilient health systems capable of responding to diverse threats.

### Strategic and Operational Planning:

The responses underscore the importance of translating global strategies into local actions, addressing infectious disease control, surveillance, risk analysis, and community resilience. This strategic and operational focus is essential for prepared, responsive, and adaptable public health systems.

### Cybersecurity and Information Assurance:

Recognizing the importance of protecting health information against cyber threats, the curriculum should cover data protection, network security, and the ethical, legal, and social implications of cybersecurity.

These synthesized points reveal a consensus on the need for a holistic, evidence-based, and adaptable approach to public health education and practice, emphasizing the importance of preparedness, interdisciplinary collaboration, and a global perspective in addressing contemporary and future health challenges.

## **Question 3: Knowledge Management**

- ◇ How can the curriculum integrate knowledge from diverse fields like psychology, sociology, and environmental science to provide comprehensive disaster response training and foster transdisciplinary societal resilience?



This synthesis outlines a comprehensive approach to enhancing public health curricula through interdisciplinary and transdisciplinary methods, focusing on disaster response, societal resilience, and the integration of knowledge from diverse fields such as psychology, sociology, and environmental science. The strategies and recommendations underscore the importance of inclusive, participatory curriculum development processes and the application of multifaceted learning methodologies to prepare public health professionals for complex global challenges. Here are the synthesized insights, organized by thematic focus:

Inclusive Curriculum Development:

Emphasize the importance of involving a broad range of stakeholders, including representatives from psychology, sociology, environmental science, and other relevant fields, from the inception through the development and implementation phases of the curriculum. This approach ensures that diverse perspectives and expertise inform the educational content and pedagogical strategies.

Transdisciplinary and Society-oriented Education:

Shift from a knowledge-based curricular paradigm to one that is transdisciplinary, focusing on societal needs and real-world applications. This involves moving beyond traditional disciplinary boundaries to address complex problems through holistic, integrated approaches.

Psychological, Sociological, and Environmental Integration:

Incorporate principles and insights from psychology (e.g., understanding human behavior in disasters, psychological first aid), sociology (e.g., social dynamics, community engagement, and participation), and environmental science (e.g., ecosystem services and resilience, environmental health) into public health curricula. This integration enriches the curriculum by providing students with a comprehensive understanding of the multifaceted nature of disaster response and societal resilience.

Experiential Learning and Real-world Applications:

Utilize experiential learning strategies such as case studies, simulations, problem-based learning (PBL), collaborative research projects, practicums, internships, and community engagement projects to allow students to apply interdisciplinary knowledge to practical



challenges. These methods foster critical thinking, problem-solving skills, and collaboration across disciplines.

#### Interdisciplinary Collaboration and Partnerships:

Encourage partnerships with community organizations, government agencies, NGOs, and other stakeholders to provide students with practical experience in disaster response and resilience-building initiatives. Collaborative research and field experiences facilitate knowledge exchange among disciplines and enhance students' preparedness to tackle complex public health challenges.

#### Curriculum Content and Skills Development:

Develop curriculum content that addresses psychological background for understanding disaster effects, the role of social networks in recovery, environmental mitigation strategies, and the psychological impacts of displacement due to environmental disasters. Skills in risk perception and communication, community engagement, interdisciplinary problem-solving, and decision-making are also critical.

#### Continuous Improvement and Adaptation:

Engage in continuous curriculum evaluation and adaptation to ensure relevance and responsiveness to emerging public health challenges. This includes integrating new research findings, technological advancements, and lessons learned from recent disaster responses into educational content.

#### Building Transdisciplinary Alliances:

Form alliances across various fields to support collaborative studies, human resource development, and the regular exchange of knowledge and practices. This approach enhances the capacity of public health professionals to operate effectively in complex, dynamic, and unstable environments.

#### Focus on Vulnerable Populations:

Incorporate a strong focus on understanding and addressing the needs of vulnerable populations, ensuring that disaster response and resilience efforts are inclusive and equitable.

#### Global and Local Engagement:

Recognize the importance of global engagement and the inclusion of perspectives from countries with varying levels of resources and knowledge. This interdependence is crucial for comprehensive disaster preparedness and response.

This synthesis highlights a strategic vision for public health education that is adaptive, interdisciplinary, and focused on preparing professionals to meet the challenges of a rapidly changing world with innovative solutions for disaster response and societal resilience.



Implement microlearning sessions, feedback and reflection, and continuous professional development programs, including mentorship opportunities. These strategies promote lifelong learning, skill reinforcement, and career advancement in public health.

#### Interdisciplinary and Collaborative Learning:

Encourage interdisciplinary approaches by integrating knowledge from various fields, facilitating collaborative projects, and engaging with external experts. This fosters a holistic understanding of public health challenges and enhances problem-solving skills through cross-disciplinary dialogue.

#### Community Engagement and Service Learning:

Connect students with local communities through service-learning projects, participatory research methods, and community engagement initiatives. This promotes experiential learning, addresses community needs, and emphasizes the importance of public health work in real-world settings.

#### Personalized and Adaptive Learning:

Offer personalized learning experiences through adaptive learning platforms, combining traditional and online learning methods. Integrate project-based learning, competency-based learning, and game design educational settings to cater to individual learning styles and needs.

#### Innovative Technologies in Education:

Leverage educational technologies, such as virtual simulations, mobile apps, virtual and augmented reality, and online learning platforms. These technologies provide interactive and engaging learning experiences, enhancing the acquisition of practical skills.

#### Critical Thinking and Problem-solving Workshops:

Conduct problem-solving workshops and simulation training to exercise decision-making in complex, dynamic environments. This prepares students for satisfactory decision-making rather than seeking optimal solutions in unpredictable situations.

#### Global Health Perspectives and Ethics:

Incorporate global health perspectives, public health ethics, and cultural exchange programs into the curriculum to prepare students for work in a global arena and to address ethical considerations in public health practice.

#### Soft Skills Development:

Emphasize the development of soft skills, such as teamwork, communication, leadership, and stress management, through mindfulness practices and active learning strategies. These skills are crucial for the interpersonal aspects of public health work.

**Implementation Science and Creativity Research:** Focus on implementation science to bridge the gap between educational content and practical application. Incorporate creativity research and AI literacy to foster innovative solutions and problem-solving capabilities.

Interdisciplinary Curriculum Design and Cultural Awareness: Design curricula that integrate STEAM (Science, Technology, Engineering, Arts, Mathematics) principles and cultural awareness to promote holistic thinking and innovation. Encourage information sharing and collaboration across systems to enhance public health education.

These strategies collectively aim to create a dynamic, effective, and inclusive educational environment that prepares future public health professionals to address complex challenges through innovative solutions, critical thinking, and interdisciplinary collaboration.

## Question 5: Core Competencies

- ◇ What practical skills are essential for health professionals in disaster scenarios, and how can simulations be used to enhance learning?
- ◇ What role does technology hold?
- ◇ How can this be expanded?



The qualitative analysis of responses regarding practical skills essential for health professionals in disaster scenarios, the use of simulations for enhancing learning, and the role of technology reveals several key themes. These are synthesized and ordered by their significance and frequency of mention across the responses:

#### Integration of Technology and Simulation for Training:

The responses emphasize the critical role of technology and simulation in training health professionals for disaster scenarios. This includes online demos for PPE use, AI for monitoring training activities, and virtual simulations that mimic real-world emergencies. The use of technology is not limited to enhancing realism in simulations but extends to facilitating access to educational materials and improving diagnostic capabilities in disaster responses.

**Development of Essential Practical Skills:** Rapid decision-making, emergency triage, effective communication under stress, and psychological first aid emerge as essential skills. Training programs should focus on developing these competencies, with simulations offering a platform for hands-on practice and feedback. The application of technology, such as remote video support and AI, can augment this learning, providing real-time guidance and decision-making support.

#### Emotional Resilience and Mental Health Support:

Acknowledging the psychological impact of disaster scenarios on both health professionals and the populations they serve is crucial. Training should incorporate psychological first aid for self and others, underlining the importance of mental health resilience. Simulations can include scenarios that address the emotional and psychological aspects of disaster response, preparing professionals for the human element of these crises.

#### Interdisciplinary and Collaborative Approaches:

The need for interdisciplinary collaboration and the integration of knowledge from various experts—ranging from military to one health experts—is highlighted. This collaborative approach extends to simulations, where team-based learning and the involvement of multidisciplinary teams in scenario-based exercises can enhance the learning experience and prepare professionals for the collaborative nature of real-world disaster response.

**Leadership and Management in Crisis:** Leadership skills, including the leadership of high-performance teams and emotional empowerment, are identified as vital. Simulations play a key role in developing these skills, allowing professionals to practice leading teams, making rapid decisions, and managing resources efficiently in a controlled, yet realistic environment.

**Continuous Learning and Adaptation:** The dynamic nature of disaster scenarios demands continuous learning and adaptation. This can be facilitated by technology through the use of knowledge hubs, webinars, and podcasts, providing up-to-date information and enabling ongoing education. Simulations also contribute to this by allowing for the rehearsal of scenarios based on recent disasters or emerging threats.

#### Access to and Use of Technology:

While technology is acknowledged as a crucial tool in disaster response training, there is also a recognition of the need to prepare for scenarios where access to technology may be limited.

Training programs should therefore balance high-tech solutions with low-tech, high-yield prevention strategies and ensure that health professionals are versatile in their ability to respond with or without technological aid.

#### Harnessing Artificial Intelligence:

AI is seen as a pivotal element in expanding the scope and effectiveness of training simulations. The potential for AI to bring simulations into the physical world, personalize training experiences, and support decision-making in complex scenarios is noted as an area for future development.

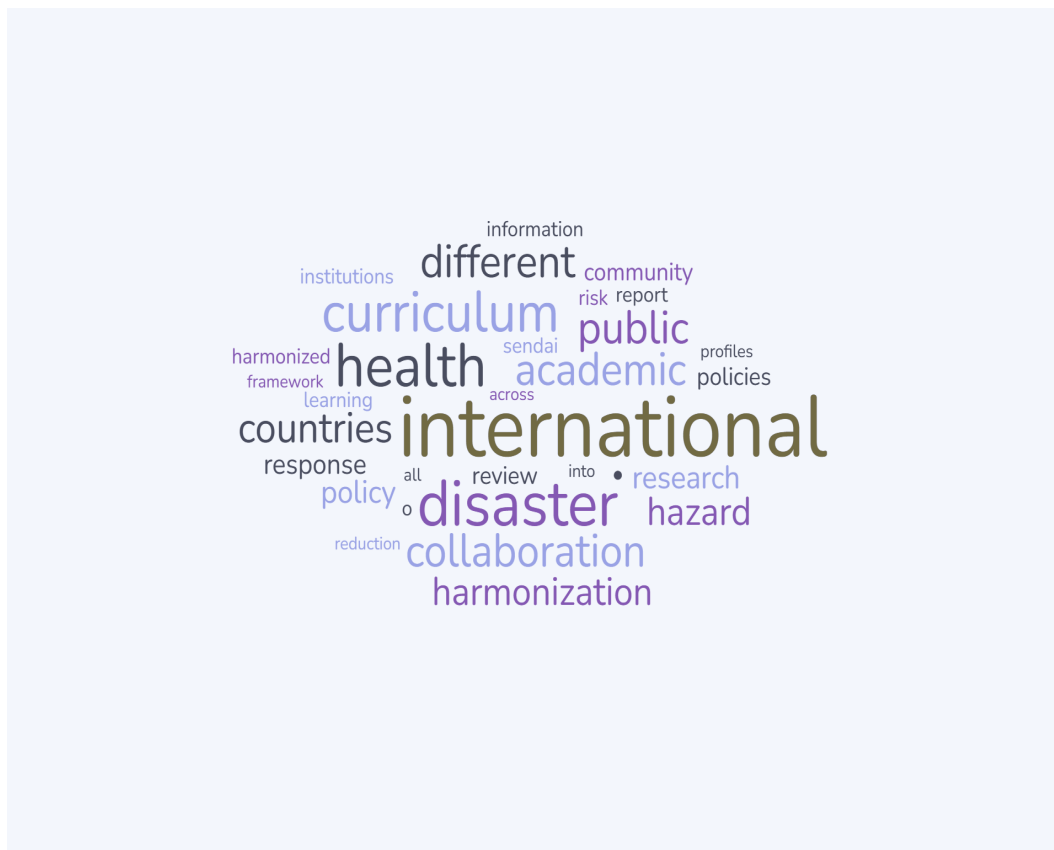
#### Practical Applications and Field Exercises:

Beyond simulations, the application of learning in real-world settings through field exercises and involvement in actual disaster responses is suggested as crucial for the development of practical skills and competencies.

This synthesis demonstrates a consensus on the importance of a multifaceted approach to training health professionals for disaster scenarios, where technology and simulations are leveraged to develop essential practical skills, promote emotional resilience, encourage interdisciplinary collaboration, and foster continuous learning and leadership capabilities.

## Question 6: Collaboration

- ◇ How can international collaboration be inculcated as a core learning objective in public health education in the context of European public health preparedness and disaster medicine?
- ◇ How can the Academic community influence public policies needed to ensure harmonized responses across different communities and countries?
- ◇ Can curriculum harmonization achieve this goal?



The responses highlight the significance of integrating international collaboration, curriculum harmonization, and technology in public health education, especially within the context of disaster preparedness and response across the European Union. Here's a qualitative synthesis of the important points, ordered by their emphasis across the responses:

### Curriculum Harmonization and International Collaboration:

There is a strong emphasis on the need for curriculum harmonization across European countries to ensure a consistent and coordinated response to public health emergencies and disasters. This includes aligning curricula with international frameworks such as the Sendai

Framework for Disaster Risk Reduction, SDGs, and Paris Agreement. Collaborative efforts are highlighted as crucial, with suggestions for international exchanges, joint degree programs, and leveraging platforms for sharing best practices and educational materials.

#### Incorporating Technology and Innovative Training Methods:

The use of technology, including online demos, virtual simulations, and AI, is recognized as essential for enhancing training and preparedness. Technology facilitates access to resources and simulations that mimic real-world scenarios, allowing for an immersive learning experience. There's a call for expanding the use of such technologies to further improve training outcomes.

**Adaptability to Local Needs While Maintaining Core Competencies:** While the push for harmonization is strong, there is an acknowledgment of the need for curricula to be adaptable to the specific needs of populations they serve. This underlines the balance between maintaining core competencies essential for disaster response while allowing for the customization of curriculum content to address local and regional public health challenges.

#### Strengthening Practical Skills Through Simulation and Case Studies:

Practical skills, including rapid decision-making, communication, and emergency triage, are identified as crucial for health professionals in disaster scenarios. Simulations and case studies are advocated as effective methods for enhancing these skills, providing realistic practice environments that prepare learners for actual disaster responses.

#### Engagement with Policy Makers and Stakeholders:

The importance of engaging with politicians, policymakers, and other stakeholders in the development and implementation of public health curricula is emphasized. This engagement is viewed as key to ensuring that educational programs are informed by, and contribute to, policy decisions and public health strategies that align with international agreements and goals.

#### Focus on Post-Crisis Recovery and Mental Health:

Courses and training should also cover post-crisis recovery, including mental health and social issues such as poverty. This highlights the comprehensive nature of disaster preparedness and response education, which extends beyond immediate emergency actions to include long-term recovery and support.

#### Leveraging Academic and Research Networks:

The academic community's role in providing an evidence base for policymaking is noted, with suggestions for using academic and research networks to facilitate collaboration and knowledge exchange. This includes the participation of academic institutions in international steering groups and the development of methodological courses that incorporate the latest research findings.

#### Real-world Application and Experiential Learning:

The transition from theoretical knowledge to practical application is deemed critical, with a call for real-world application of learning through field exercises, internships, and engagement in actual disaster response efforts. This approach ensures that learners not only acquire



knowledge but also develop the skills and competencies necessary to apply that knowledge effectively in real-world scenarios.

This synthesis underscores the collective vision of integrating international collaboration into public health education, leveraging the academic community's research and policy influence, and pursuing curriculum harmonization as strategies for enhancing European public health preparedness and disaster medicine. These approaches aim to cultivate a well-prepared workforce capable of effective cross-border cooperation in responding to public health emergencies.

## Question 7: State of the Practice

- ◇ To what extent does public health curricula address the allocation of resources and aid during large-scale crises and disasters, especially in the face of escalating conflicts and population dislocation?
- ◇ How and where can this be integrated?



The discussion around integrating resource allocation and aid management during crises and disasters into public health curricula touches on the importance of preparing health professionals for the complexities of emergency response, particularly in scenarios of escalating conflicts and population dislocations. Here's a synthesis of the responses, organized to address the posed questions:

#### Extent of Coverage in Public Health Curricula:

The coverage of resource allocation and aid during large-scale crises in public health curricula appears to be varied and, in many cases, insufficient. There's a recognized need for enhancing awareness and understanding of these critical issues within the public health community and beyond.

#### Integration into Public Health Education:

The integration can be significantly improved through the development and dissemination of comprehensive guidance, such as the WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management. Incorporating modules on disaster management, humanitarian action, health policy, governance, ethics, and human rights into the curriculum can provide a more rounded understanding.

Practical experiences, such as internships and fieldwork with NGOs and humanitarian organizations, alongside case studies, scenario analyses, and simulation exercises, are crucial for exposing students to real-world challenges and decision-making processes.

Enhancing curricula with research-based insights and emphasizing interdisciplinary learning that includes political, economic, and ethical considerations in resource allocation can prepare health professionals for leadership roles in complex disaster scenarios.

#### Challenges and Solutions:

Behavioral rigidity, ethnocentrism, and cultural misunderstandings among international response teams present significant challenges to effective resource allocation and aid distribution. Strengthening leadership skills, joint training, and sociological knowledge can address these issues.

The variability in addressing these topics across programs calls for a more unified approach to curriculum development, possibly through international collaborations and academic partnerships.

#### Future Directions:

There's a consensus on the need for more attention to the allocation of resources and aid during crises, with a particular focus on vulnerable populations. The curriculum should evolve to include a forward-looking, competency-based, and problem-focused approach.

The principles of triage systems and the importance of explaining these principles in public discourse are highlighted as essential for preventing further instability during public health crises.

The variability in curricular content across different countries and regions suggests that while harmonization may be beneficial, adaptability to local contexts and needs must be preserved.

In conclusion, the responses underscore the importance of integrating comprehensive, research-based, and practical learning experiences related to resource allocation and aid management during crises into public health curricula. This includes a stronger emphasis on interdisciplinary approaches, ethical decision-making, and practical skills development, all of which are vital for preparing future health professionals to respond effectively to large-scale emergencies and disasters.

## Question 8: Policy and Privacy

- ◇ What prevents the adoption of policies that balance the needs for data sharing in public health and disaster responses with concerns about patient and staff privacy and security in a multi-national European context?
- ◇ How can public health curricula address this?



The discussion centers on the complexities of balancing the imperative of data sharing in public health and disaster response with privacy and security concerns, especially within the context of

the European Union, where varied national laws and cultural attitudes towards privacy complicate the scenario. The synthesis of responses, tailored to the questions posed, is as follows:

#### Barriers to Policy Adoption for Data Sharing:

Varied national data protection laws and the lack of harmonized regulations across European countries present significant challenges to adopting uniform policies for data sharing. Differing levels of digital infrastructure, concerns over potential data misuse, and the absence of standardized data-sharing protocols further hinder policy adoption.

Ethical concerns regarding patient and staff privacy, alongside varying cultural attitudes towards privacy and data sharing, exacerbate the difficulty in establishing continent-wide policies.

#### Curricular Integration Strategies:

Integrate comprehensive modules on international data protection laws, including GDPR, and ethical considerations surrounding data sharing. This approach can equip students with the knowledge to navigate the complex landscape of multi-national data sharing while upholding privacy standards.

Encourage the development and dissemination of data policies for crises, such as those being worked on with CODATA and UNESCO, to serve as living references for best practices in data management during emergencies.

Address the consequences of privacy breaches and the importance of confidentiality through case studies, fostering a deeper understanding of the stakes involved in data sharing. Promote anonymous data sharing practices and educate students on technologies and methodologies that ensure data anonymization while enabling valuable health information exchange.

Foster an interdisciplinary approach by incorporating insights from social determinants of health, information security, and health informatics into the public health curriculum. Simulation exercises and problem-solving skills training can prepare students for practical challenges associated with balancing data sharing, privacy, and security in disaster response scenarios.

Collaboration with legal, ethical, and technical experts should be encouraged within educational frameworks to provide a holistic perspective on the issues at hand.

#### Future Directions:

There's a consensus on the need for better and more visible data-sharing agreements across the EU, highlighting the essential role of clear, accessible policies in facilitating data exchange during public health emergencies.

Developing core competencies in cybersecurity, focused on protecting personally identifiable information (PII) and medical data, is crucial. This involves bringing specialists from computer sciences and security into the fold of public health and disaster medicine education.

Addressing the challenges posed by Brexit on GDPR rules and the restrictions of data sharing, curriculum content could cover the complexities of data-sharing agreements and the collaborative approaches that can enhance a data-driven response.

Standardization of data formats and interoperability across healthcare systems within and beyond Europe is recognized as a path forward, suggesting that curricula should offer courses on data standardization and interoperability.

In conclusion, the responses suggest a multifaceted approach to educating future public health professionals. This approach emphasizes understanding the legal, ethical, and technical aspects of data sharing and privacy protection in a multi-national context, preparing them to contribute effectively to policy development and practical solutions in public health and disaster response scenarios.



inconsistent. Some curricula are evolving to include these critical areas, focusing on sustainable development, disaster preparedness, and green healthcare practices.

#### Strategies for Curricular Integration:

To effectively incorporate these themes, public health education must adopt an interdisciplinary approach, blending insights from environmental science, health policy, and sociology. Practical skills in disaster response, sustainable resource management, and policy advocacy are emphasized as vital components.

Collaborations with international organizations like WHO/WMO and initiatives such as GHHIN and UN landmark agreements (Sendai, SDGs, Paris Agreement) offer frameworks for integrating climate change resilience into curricula.

Highlighting the importance of epidemiological surveillance, especially with sentinel populations, could serve as an early warning system for the health impacts of climate change. Discussions around causality criteria specific to climate impacts on health are suggested as valuable additions to curricula.

#### Challenges and Opportunities:

Differences in recognition among decision-makers versus academics highlight a gap between awareness and action. Bridging this gap requires enhancing communication about climate and health issues beyond the academic community.

Varied data protection regulations and concerns over privacy and confidentiality pose significant challenges to implementing uniform policies for data sharing in public health and disaster response. Curricula can address this by integrating modules on international data protection laws, ethical considerations, and secure data management practices.

The practical aspect of preparing governmental institutions and agencies for climate change impacts and emergency interventions is identified as a critical area needing more focus within public health education.

#### Future Directions:

There's a clear call for more content related to climate change impacts on public health within educational programs. Curricula should increasingly focus on climate change adaptation, community resilience, and policies for strengthening public health infrastructures.

The inclusion of societal resilience and policy promotion in curricula not only prepares future public health professionals for climate-related challenges but also ensures they are equipped to lead sustainable practices and advocate for robust health policies.

Interdisciplinary collaboration, practical skills development, and an emphasis on policy and advocacy are identified as key areas for curricular enhancement to address the multifaceted challenges posed by climate change, conflict, and emerging diseases.

In conclusion, the responses underscore the need for public health curricula to more comprehensively address the challenges posed by climate change, emphasizing societal resilience and the development of robust public health infrastructures. While progress is being made, there remains a significant opportunity for curricula to evolve further, incorporating

interdisciplinary approaches and practical experiences to prepare students to navigate and lead in a climate-challenged world effectively.

## Question 10: Mental Health and Psychological Support

- ◇ How can Public Health education better prepare students and practitioners to address the mental health and psychological impacts and resilience of disasters and mass violence on affected populations?



The discussion on enhancing Public Health education to address the mental health and psychological impacts of disasters and mass violence emphasizes several key areas for development and integration. Here's an analysis based on the responses:

### Research and Guidance Enhancement:

The necessity for more research and input from affected communities is highlighted as a primary need. WHO's Guidance on Research Methods for Health Emergency and Disaster Risk Management represents a significant resource that includes mental health and psychosocial support, suggesting that evidence-based practices are critical for curriculum development.

### Curricular Integration Strategies:



There's a consensus on the need to introduce or enhance programming related to mental health within Public Health curricula. This includes integrating courses on mental health and psychological resilience, with suggestions for using experts' knowledge (e.g., Brené Brown, Amy Edmondson) and implementing fear reduction programs by patient experience associations.

Practical modules on psychological first aid, coping strategies, and community-based mental health interventions are recommended to prepare students for real-world challenges. Collaboration with psychology and social work departments can offer interdisciplinary learning experiences, enriching students' understanding of disaster psychology and resilience.

#### Practical Skills and Simulation Training:

The inclusion of practical skills training, such as large-scale simulations using real equipment and actors, is deemed essential for helping students understand post-traumatic stress syndrome (PTSS) and its treatment. The use of virtual reality for high-fidelity simulation offers a modern approach to mimicking disaster scenarios closely.

#### Levels of Education and Competency:

Determining what competencies should be covered at different educational levels (bachelor vs. master's) is crucial to avoid curriculum overcrowding. This calls for a strategic approach to curriculum design that ensures essential competencies are taught efficiently.

#### Community Engagement and Cultural Competence:

Emphasizing cultural competence and sensitivity is vital in delivering mental health support to diverse populations. Training should cover trauma-informed care and community engagement strategies, preparing students for the complex dynamics of disaster and mass violence scenarios.

#### Interdisciplinary and Multidisciplinary Approaches:

Adopting interdisciplinary and multidisciplinary approaches is suggested to comprehensively address the mental health impacts of disasters. This involves not only integrating psychological knowledge but also leveraging insights from fields like sociology, neurobiology, and emergency management.

#### Policy Education and Advocacy:

Educating students on policy development and advocacy related to mental health in disaster scenarios is crucial for influencing change and improving public health responses. Collaboration with legal and ethical experts can enhance students' abilities to navigate complex policy landscapes.

In conclusion, Public Health education must evolve to better prepare students and practitioners for the mental health challenges presented by disasters and mass violence. This involves a combination of enhancing research and guidance, integrating practical skills and interdisciplinary approaches into the curriculum, and emphasizing policy education and

community engagement. Through these strategies, future public health professionals can be better equipped to support affected populations' mental health and psychological resilience.

## Question 11: Data Science Research

- ◇ What are prevailing disaster science questions, models and capabilities that seek to be answered using existent disaster and emergency data sources?



The exploration of prevailing disaster science questions, models, and capabilities is deeply intertwined with the effective utilization of existing disaster and emergency data sources. The discourse reveals a consensus on the necessity for an integrated approach that leverages comprehensive research, predictive analytics, and international collaboration. Here's a synthesized overview:

### WHO Guidance and International Collaboration:

The development of the WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management marks a significant step toward improving research quality, policy, practice, and capacity in Health EDRM. This initiative underscores the importance of international

collaboration and the collective effort of researchers worldwide to address disaster science questions effectively.

#### Predictive Questions and Vulnerability Assessments:

Key inquiries in disaster science revolve around the prediction of disasters, the assessment of population vulnerabilities, the organization and reactivity of healthcare systems, and the implementation of epidemiological surveillance. The creation of specialized teams, such as "Acute Epidemiologists teams," emphasizes the need for agile and competent groups capable of collecting and analyzing real-time data for immediate response and long-term recovery planning. Interoperability and Data Challenges: The General Data Protection Regulation (GDPR) poses challenges to accessing and utilizing personal data for research. However, opportunities for data integration and utilization are highlighted, suggesting the development of federated data systems and standardized data formats to facilitate cross-border data sharing and analysis.

#### Comprehensive Data Analysis:

The call for longitudinal data collection, integration, and analysis underscores the importance of understanding the broad impacts of disasters. This approach aims to identify risk and protective factors across the continuum of pre-hospital to community rehabilitation phases.

Predictive Modeling and Real-Time Analytics: Emphasizing predictive modeling, real-time data analytics, and the use of advanced technologies such as GIS, remote sensing, and AI, the responses highlight the need for models that can accurately predict disaster occurrences, assess vulnerabilities, optimize response strategies, and evaluate the long-term impacts of disasters on communities.

#### Ethical and Practical Considerations:

Addressing disaster science questions also involves navigating ethical issues related to data sharing and the need for a public health data architecture that optimizes response efforts. This includes understanding the challenges that hinder data sharing and identifying the key ethical considerations in the utilization of disaster data.

#### Case Studies and Applied Research:

The integration of case studies, such as pandemics and natural disasters, into research and educational frameworks is advocated. These studies can provide valuable insights into the impact of disasters at various levels and foster brainstorming about better solutions and preventive measures.

In summary, advancing disaster science necessitates a multifaceted strategy that combines rigorous research, ethical data use, predictive modeling, and international cooperation. By addressing these prevailing questions and harnessing the potential of existing data sources, the disaster science community can enhance its ability to predict, respond to, and recover from disasters more effectively, ultimately reducing their impact on societies worldwide

# Question 12: Data Sources

◇ What global, European and country-supported disaster data (and other ancillary data) sources can be leveraged for collaboration, scientific inquiry and implementation?



Leveraging global, European, and country-supported disaster data sources is critical for collaboration, scientific inquiry, and implementation in the realm of disaster and emergency management. These data sources offer a rich repository of information that can be utilized to enhance our understanding of disasters, improve preparedness, and facilitate effective response strategies. Here's a synthesized overview of key data sources identified:

WHO Guidance and Global Collaborations:

The WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management, developed with contributions from a wide array of international experts, underscores the importance of collaborative efforts in improving disaster research and management. This resource serves as a cornerstone for guiding researchers and practitioners in utilizing existing data for health emergency and disaster risk management (EDRM).

### Comprehensive Data Needs:

Recognizing the importance of diverse data types, including demographic, spatial, temporal, hospital admissions, and severity of cases, underscores the multifaceted nature of disaster data requirements. This calls for the integration of data on healthcare organization, reactivity, and access to treatments, thereby facilitating a holistic approach to disaster management and research.

### Data Source Examples:

Key global and European data sources mentioned include EM-DAT (The International Disaster Database), Global Disaster Alert and Coordination System (GDACS), and the European Emergency Response Coordination Centre (ERCC). These platforms provide invaluable data for disaster monitoring, response coordination, and risk assessment, highlighting the significance of established databases in supporting disaster science.

### National and Local Data Integration:

The integration of data from emergency medical services (EMS), hospitals, and community care, including social welfare departments, is crucial for building a comprehensive picture of disaster impacts and responses. This localized data, when combined with global and European sources, enhances the capacity for detailed analysis and targeted interventions.

### Interdisciplinary and Ancillary Data Sources:

Emphasizing the use of interdisciplinary data sources, such as those from environmental monitoring, health organizations, and socio-economic databases, highlights the need for a broad approach to disaster science. Ancillary data sources, including satellite imagery, social media, and climate data repositories, offer additional layers of information critical for predictive modeling, vulnerability assessments, and response optimization.

### Challenges and Opportunities:

While the plethora of data sources presents vast opportunities for disaster science, challenges related to data access, privacy concerns, and the integration of heterogeneous data sets are also acknowledged. Addressing these challenges requires innovative solutions, such as federated data systems and standardized data protocols, to facilitate seamless data sharing and collaboration.

In conclusion, leveraging global, European, and country-supported disaster and ancillary data sources is imperative for advancing disaster science. Through collaboration, scientific inquiry, and implementation, these data sources provide a foundation for developing effective strategies to mitigate the impacts of disasters, enhance resilience, and save lives. Addressing the challenges of data integration and privacy will further enable the disaster science community to harness the full potential of these resources.

## Question 13: Data Integration, Interpretation, and Medical Intelligence

- ◇ What are the opportunities to increase access and utilization of disaster data sources and streamline interoperability and integration of data for science and improved understanding?



Increasing access and utilization of disaster data sources and enhancing interoperability and integration for scientific inquiry and improved understanding present numerous opportunities. These opportunities encompass a range of strategies, from advancing policy frameworks to leveraging technology and fostering international collaboration. Here's an overview based on the synthesized information:

### Policy and Regulatory Frameworks:

Developing data policies that cater to the specific needs of crisis times, as highlighted by ongoing work with CODATA and UNESCO, can provide a foundational structure for data sharing and utilization. Efforts towards a Data Policy in Times of Crises set for launch in 2024 exemplify strategic planning in this direction.

#### Data Quality and Accessibility:

Focusing on the identification, evaluation, and extraction of high-quality health data from hospital databases and other sources can significantly enhance the scope of disaster research. Ensuring that data is comprehensive and accessible while maintaining privacy and security standards is crucial.

#### Interdisciplinary Collaboration:

Encouraging collaborative efforts among scientists, historians, meteorologists, and other experts who possess historical data on natural disasters can enrich disaster science research. Joint scenarios with civil protection and military forces, which often have access to advanced tools and structured thinking on disaster response, can also provide valuable insights.

#### Technological Solutions:

The development and deployment of a data hub that facilitates the integration and analysis of real-time data can advance our understanding of complex adaptive systems within the context of disasters.

#### Open Data Initiatives and Standards:

Expanding open access to disaster data and enhancing interoperability among data systems through standardization and metadata are key to promoting scientific inquiry. This includes establishing common data standards and metadata formats to ensure consistency across different datasets, facilitating data integration and interoperability.

Capacity Building: Improving training and education programs to equip researchers, policy-makers, practitioners, and stakeholders with the necessary skills to utilize disaster data effectively can strengthen disaster risk management efforts. Integrating disaster data science into academic curricula for public health can also prepare future generations for more informed decision-making.

#### Public-Private Partnerships and Community Engagement:

Enhancing international collaboration networks, public-private partnerships, and community engagement can foster a more cohesive approach to disaster management. This includes leveraging crowdsourced data and engaging citizens in data collection through citizen science initiatives.

#### Technological Innovations:

Leveraging technological developments such as GIS connectivity, artificial intelligence (AI), and machine learning can automate data processing, enhance predictive modeling, and facilitate real-time decision-making.

#### Interoperable Platforms:

Developing and utilizing resilience and hazard maps, as well as multifaceted dashboard systems, can provide critical insights into vulnerable regions and populations, aiding in targeted intervention strategies.

In summary, these opportunities underline the importance of a multi-faceted approach to disaster data management, incorporating policy development, technological innovation, and collaborative efforts across sectors and disciplines. By leveraging these strategies, we can significantly improve access to and utilization of disaster data, enhancing our collective ability to respond to and understand the complexities of disasters and emergencies.

## Question 14: Legal and Ethical Training

◇ How can the curriculum address legal and ethical aspects to ensure that healthcare professionals are equipped to make sound and equitable decisions in disaster and conflict situations?



Addressing legal and ethical aspects in healthcare curricula to ensure professionals are prepared for disaster and conflict situations involves a multifaceted approach. This approach spans from embedding specialized knowledge in the curriculum to fostering practical skills and ethical reasoning. Here's how these aspects can be integrated effectively:



#### Integration of Specialized Knowledge:

Incorporate comprehensive courses on medical ethics, health law, and humanitarian principles specific to disaster and conflict situations. This includes understanding the Geneva Conventions, international humanitarian law, and the rights and protections afforded to healthcare workers and civilians.

Highlight the ethical dimensions of decision-making in resource-constrained environments, focusing on triage, prioritization of care, and managing dilemmas related to fairness and equity.

#### Case Studies and Scenario-Based Learning:

Utilize case studies and simulations to explore real-world dilemmas healthcare professionals might face, encouraging critical thinking and ethical decision-making.

Organize scenario-based learning exercises that simulate disaster and conflict situations, requiring students to navigate legal and ethical challenges, such as informed consent under duress, maintaining patient confidentiality, and the allocation of scarce resources.

#### Expert Lectures and Interdisciplinary Learning:

Invite experts in medical ethics, law, and humanitarian work to deliver lectures, offering students insights into the complexities of legal and ethical decision-making in the field.

Foster interdisciplinary learning by incorporating perspectives from law, philosophy, and social sciences to enrich understanding of the multifaceted nature of ethical issues in healthcare.

#### Cultural Sensitivity and Equity:

Emphasize the importance of cultural sensitivity and awareness in delivering healthcare in diverse settings, addressing how cultural beliefs and practices can impact ethical decision-making and patient care.

Teach strategies for equitable care delivery, ensuring that vulnerable populations, such as refugees, the elderly, and marginalized communities, receive appropriate attention and resources.

#### Practical Skills Development:

Provide training in practical skills, such as psychological first aid, crisis counseling, and communication strategies, to support ethical and compassionate care.

Develop competencies in navigating legal and regulatory environments, understanding the legal rights and obligations of healthcare workers during disasters and conflicts.

#### Ongoing Professional Development:

Encourage continuous learning and professional development in legal and ethical aspects of healthcare, recognizing that laws, guidelines, and ethical challenges evolve.

Offer workshops, seminars, and online courses for healthcare professionals to update their knowledge and skills regularly.

#### Simulation and Field Training:

Use advanced simulation technologies and field training exercises to provide immersive experiences that challenge students to apply their knowledge and skills in controlled, realistic settings.

Facilitate debriefing sessions after simulations to reflect on the legal and ethical decisions made, fostering a deeper understanding and learning from each scenario.

Ethical Consultation and Support Services:

Teach about the role and function of ethical consultation services available during emergencies, emphasizing their importance in supporting healthcare professionals to make informed decisions.

Encourage the establishment of ethical support networks and mentorship programs where experienced professionals can guide less experienced colleagues through ethical quandaries.

By adopting these strategies, healthcare curricula can prepare professionals to face the legal and ethical challenges inherent in disaster and conflict situations, equipping them with the knowledge, skills, and moral compass to make sound, equitable decisions under pressure.

## **Question 15: Collaboration and Partnership**

◇ How can curriculum development support collaboration and partnership of the future?

Curriculum development can significantly enhance future collaboration and partnership across diverse sectors by focusing on interdisciplinary approaches, experiential learning, and global perspectives. Here's a structured approach based on these principles:



Utilize technology to connect students with international peers and experts, facilitating global collaboration on projects and research.

#### Focus on Ethics and Equity:

Embed ethical considerations and equity principles in collaborative projects and partnerships. Teaching students to navigate ethical dilemmas in diverse teams and settings ensures respectful and effective collaboration.

Highlight the importance of considering local contexts and needs in partnership initiatives, fostering culturally sensitive and equitable approaches to health challenges.

#### Leadership and Communication Skills:

Develop curricula that strengthen leadership and communication skills, crucial for managing teams, negotiating partnerships, and advocating for health initiatives.

Offer workshops and simulations that simulate leadership roles in collaborative projects, enhancing students' ability to lead and contribute effectively in diverse teams.

#### Research and Innovation:

Encourage participatory research projects that involve stakeholders from the inception phase, promoting collaborative knowledge generation.

Support innovation in health solutions through competitions, hackathons, and incubators that bring together students, researchers, and professionals from different sectors.

#### Policy Engagement:

Teach students about the policy-making process and the role of evidence in shaping health policies. Incorporating policy analysis projects can prepare students to engage effectively with policymaker and contribute to policy development.

Facilitate interactions with policymakers and health advocates, providing platforms for dialogue and collaboration on health policy issues.

#### Continual Professional Development:

Promote lifelong learning and professional development opportunities that encourage alumni to engage with current students, fostering an ongoing culture of collaboration and mentorship.

Develop alumni networks that support collaborative initiatives, research, and continuing education in the field of public health.

By adopting these strategies, curriculum development can lay a strong foundation for future collaboration and partnership, equipping healthcare professionals with the knowledge, skills, and networks necessary to address complex health challenges through collective efforts.

## Question 16: Governance and Resources

- ◇ What are the important characteristics of governance and resources to be taught in respect to effective implementation and uptake of future public health curriculum?



Curriculum development can significantly enhance governance and resource management in public health education by focusing on principles like transparency, accountability, participatory decision-making, strategic planning, sustainability, and effective resource allocation.

Here's a structured approach based on these guiding principles:

### Transparency and Accountability:

Integrate modules that emphasize the importance of openness in governance processes. Teach students about the mechanisms for ensuring accountability in public health decision-making and program implementation.

Use case studies to illustrate the consequences of governance failures and the importance of transparent operations to gain public trust.

### Strategic Planning and Evaluation:

Offer courses on strategic planning, including setting achievable goals, developing action plans, and monitoring and evaluation. Teach students to use evidence-based strategies for public health program planning and resource allocation.

Incorporate lessons on the evaluation of public health interventions, focusing on outcome measurement and the use of feedback loops for continuous improvement.

### Equity and Social Justice:

Address equity and social justice in curriculum content, ensuring students understand how to design and implement public health programs that reduce health disparities and promote access for all.

Engage students in discussions about the social determinants of health and the role of public health professionals in advocating for policies that address these determinants.

### Leadership, Partnerships, and Collaboration:

Develop leadership courses that include theories and practical skills in leading public health initiatives, building effective teams, and fostering intersectoral partnerships.

Facilitate collaborative projects with community organizations, health agencies, and other stakeholders to give students real-world experience in partnership development.

### Sustainability and Resource Management:

Teach students about sustainable practices in public health, including the efficient use of resources, environmental health considerations, and long-term planning for public health infrastructure.

Offer training on budgeting, financial management, and the strategic allocation of resources to maximize impact.

### Innovation and Technology:

Integrate content on the use of technology in public health, covering data management systems, telehealth, and digital health interventions.

Encourage innovation by incorporating design thinking and problem-solving workshops that challenge students to develop technology-driven solutions for public health challenges.

### Global Health Governance and Policy:

Include courses on international health regulations, global health diplomacy, and the governance structures of key health organizations like the WHO and CDC.

Discuss global health challenges and the importance of international cooperation in addressing pandemics, climate change, and other cross-border health issues.

### Participatory Governance:

Engage students in simulations and role-playing exercises that mimic public health decision-making processes, emphasizing the value of stakeholder engagement and community participation.

Teach methods for involving communities in the planning, implementation, and evaluation of health programs.

Ethical Decision-Making:

Incorporate ethics courses that specifically address dilemmas in public health governance, such as prioritizing resources during a crisis, balancing individual rights with community health, and managing conflicts of interest.

Use scenarios and case studies to practice ethical decision-making in complex situations.

Continuous Professional Development:

Highlight the importance of lifelong learning for public health professionals to adapt to evolving governance models and resource challenges.

Encourage participation in workshops, conferences, and other professional development opportunities to stay informed about best practices in public health governance and management.

By adopting these strategies, curriculum development can prepare future public health professionals with the knowledge, skills, and attitudes necessary for effective governance and resource management, ensuring they are equipped to lead and innovate in the ever-evolving field of public health.

## Question 17: Teaching Best Practices

- ◇ What strategies can be employed in the curriculum to enhance community engagement and cultural sensitivity in public health interventions across diverse European and global contexts?



To effectively incorporate community engagement and cultural sensitivity into public health interventions across diverse European and global contexts, the curriculum can employ several strategic approaches:

### Interdisciplinary and Multicultural Education:

Integrate interdisciplinary courses that bring together students from public health, social sciences, anthropology, and international relations to foster a broad understanding of cultural dynamics.

Include multicultural education that emphasizes understanding and valuing diversity within and across nations.

### Community-Based Learning:



Develop partnerships with local and international community organizations to offer students hands-on experience in diverse settings.

Encourage students to participate in community engagement projects where they can apply theoretical knowledge to real-world public health challenges, enhancing their cultural competency and community engagement skills.

#### Cultural Competency Training:

Embed cultural competency training within the curriculum, focusing on skills such as effective communication, empathy, and cultural humility.

Provide workshops and seminars led by experts in cross-cultural communication and public health ethics.

#### Global Health Immersions:

Facilitate global health immersion experiences that allow students to work in diverse cultural settings, either physically through exchange programs or virtually through telecollaboration projects.

Partner with institutions in different countries to exchange knowledge, strategies, and best practices for addressing public health issues in culturally sensitive ways.

#### Case Studies and Simulations:

Use case studies from various cultural and geographical contexts to teach students about successful community engagement strategies and the complexities of implementing public health interventions.

Incorporate simulations and role-playing exercises that challenge students to navigate cultural differences and ethical dilemmas in public health practice.

#### Language Skills and Communication:

Offer language courses relevant to the student's area of focus or interest, particularly for those planning to work in non-native languages or multicultural environments.

Teach effective communication strategies that respect cultural nuances and enhance engagement with diverse populations.

#### Reflective Practice and Ethical Consideration:

Encourage reflective practice that prompts students to consider their cultural biases and assumptions, fostering personal growth and better engagement with diverse communities.

Integrate discussions on the ethical considerations of public health interventions, including respect for autonomy, cultural rights, and informed consent.

#### Stakeholder Engagement:

Teach strategies for engaging with a wide range of stakeholders, including community leaders, healthcare providers, and policymakers, to collaboratively develop and implement public health interventions.

Highlight the importance of listening to and valuing community voices in the planning and execution of health programs.

### Research Methods for Diverse Contexts:

Train students in research methods that are appropriate for working in diverse cultural contexts, emphasizing participatory and community-based research approaches.

Promote the use of qualitative methods to understand community perspectives, beliefs, and behaviors related to health.

### Technological Tools for Engagement:

Introduce students to digital tools and platforms that facilitate community engagement and cultural sensitivity, such as social media analysis, telehealth services, and mobile health applications.

Explore the use of technology to overcome barriers to healthcare access and to tailor public health messages to diverse audiences.

By adopting these strategies, the curriculum can prepare future public health professionals to effectively engage with communities and conduct culturally sensitive public health interventions, ensuring equitable and effective health outcomes across different European and global contexts.



Engage a broad range of stakeholders in the assessment process, including public health professionals, academics, students, and community representatives, to ensure the curriculum aligns with current public health challenges and workforce needs.

#### Use of Digital Portfolios:

Implement digital portfolios where students can compile evidence of their learning, competencies, and reflections over the course of their study. This allows for a comprehensive assessment of their development and readiness for the public health workforce.

#### Interdisciplinary and Collaborative Projects:

Assess students through interdisciplinary and collaborative projects that mimic the complexity of real-world public health challenges, fostering teamwork, leadership, and problem-solving skills.

#### Feedback and Continuous Improvement:

Establish a continuous feedback loop between educators, students, and external stakeholders to regularly update the curriculum and assessment methods based on emerging public health trends and educational best practices.

#### Accreditation Process:

Work closely with established accreditation bodies such as the Agency for Public Health Education Accreditation (APHEA) or national public health associations to ensure the program meets both national and international standards.

Implement a transparent and rigorous accreditation process that includes self-assessment, external peer review, site visits, and ongoing monitoring to maintain high standards of education and practice.

#### Alignment with Public Health Competencies:

Ensure that the curriculum and core competencies are aligned with established public health competency frameworks at the national and international levels, facilitating the recognition and mobility of graduates across borders.

#### Global and Regional Collaboration:

Foster collaborations with public health institutions globally and regionally to share best practices in curriculum development, assessment, and accreditation, enhancing the quality and relevance of public health education

#### Technology Integration:

Leverage technology to facilitate innovative assessment methods, such as virtual simulations and online peer assessments, and to support the accreditation process through virtual site visits and reviews.

#### Ethics and Cultural Sensitivity:

Include ethical considerations and cultural sensitivity as core components of the curriculum assessment, ensuring that graduates are equipped to address public health challenges in diverse and global contexts ethically and effectively.

By implementing these strategies, public health education programs can ensure that they effectively assess and develop the core competencies required for the evolving public health landscape, while also achieving accreditation that recognizes the quality and relevance of their offerings.

## Collective Summary

The document synthesizes responses from the pre-colloquium questionnaire on future public health curriculum development, emphasizing adaptation to global challenges, interdisciplinary learning, disaster preparedness, ethical decision-making, and the integration of technology.

*Here's a prioritization of the dominant topics and most important and repeated items listed in the participant's responses:*

1. Interdisciplinary and Comprehensive Training: A major theme is the call for an interdisciplinary approach that includes health sciences, social sciences, engineering, data science, and emerging technologies. This aims to prepare professionals to tackle complex health challenges innovatively.
2. Emphasis on Disaster Preparedness and Response: Highlighting the need to incorporate disaster medicine, emergency preparedness, and response training reflects the growing importance of preparing for mass casualty events, natural disasters, and pandemics.
3. Adaptation to Changing Public Health Needs: There's a focus on evolving curricula to respond to new threats like climate change, emerging infectious diseases, and health disparities, ensuring professionals are ready for current and future challenges.
4. Ethical and Cultural Competency: Stressing the development of ethical decision-making skills and cultural competency underscores the importance of equitable care and addressing health disparities in diverse populations.
5. Global Health Security and Emergency Management: The responses advocate for training in global health security, emphasizing preparedness, response, and recovery from disasters and pandemics.
6. Integration of New Technologies and Digital Health: The importance of integrating training on health technologies reflects the growing role of digital solutions in healthcare.
7. Enhancing Research and Evaluation Skills: Strengthening these skills is vital for graduates to contribute to public health evidence, assess interventions, and engage in quality improvement.

8. Addressing the New Normal and Emerging Global Threats: Preparing professionals to address demographic shifts, technological advancements, environmental challenges, and global health threats is highlighted.

9. Collaboration and International Partnerships: There's a strong emphasis on fostering international collaboration and partnerships, including curriculum harmonization, to ensure cohesive and effective responses to health emergencies.

10. Legal and Ethical Training: Incorporating legal and ethical training is seen as essential for preparing healthcare professionals to make equitable decisions in disaster and conflict situations.

11. Assessment and Accreditation Best Practices: Strategies for effective assessment and accreditation of new programs include a multifaceted approach involving formative and summative assessments, stakeholder involvement, and alignment with public health competencies.

12. Community Engagement and Cultural Sensitivity: Strategies to enhance community engagement and cultural sensitivity across diverse contexts are emphasized, including interdisciplinary education, community-based learning, and cultural competency training.

These topics reflect a comprehensive vision for future public health education, focusing on building trust, adaptability, interdisciplinary training, ethical and cultural competencies, and the integration of technology, aimed at equipping future public health professionals to effectively tackle global health challenges.