EIGHTH MEETING OF THE WORKING GROUP ON HEALTH IN CLIMATE CHANGE (HIC) OF THE EUROPEAN ENVIRONMENT AND HEALTH TASK FORCE

VIRTUAL MEETING, 08-09 DECEMBER 2020

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Eighth meeting of the Working Group on Health in Climate Change (HIC) of the European Environment and Health Task Force

Meeting report

8–9 December 2020
Virtual session
ABSTRACT

On 8 and 9 December 2020, the Working Group on Health in Climate Change (HIC) of the European Environment and Health Task Force held its eighth annual meeting virtually. The main purpose of the meeting was to further support the work of Member States from the WHO European Region in developing and implementing their national portfolios of action in the area of climate change and health, as outlined in the Ostrava Declaration. In addition, the meeting provided updates on new regional evidence for the health impacts of climate change, and on global and European Region policy developments and progress on climate change and health. Taking place as it did in the midst of the COVID-19 pandemic, the meeting paid particular attention to how to make a healthy, green recovery.

Keywords

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Executive summary

Meeting scope and purpose

The Working Group on Health in Climate Change (HIC) of the European Environment and Health Task Force supports Member States of the WHO European Region in the implementation of the commitments they undertook as signatories to the 2017 Declaration of the Sixth Ministerial Conference on Environment and Health (the Ostrava Declaration), particularly their commitments to protect health from the adverse effects of climate change. HIC also facilitates dialogue and cooperation among countries and stakeholders.

The European Programme of Work (2020–2025) sets out a vision for how the WHO Regional Office for Europe can support Member State health authorities in meeting their citizens’ expectations of being able to thrive in healthy communities where public health actions and appropriate public policies – including policies on climate change mitigation and adaptation – will secure them improved quality of life and well-being. The 2019 WHO Global Strategy on Health, Environment and Climate Change provides a clear framework to address persisting and emerging environmental health risks, including climate change, through 2030.

Climate change and the COVID-19 pandemic are both public health threats of global scale. Many lessons can be drawn from the COVID-19 health crisis in addressing climate change, which is not going away any time soon. Decisions and investments guiding the short- and long-term recovery from the pandemic need to be healthy, green and climate-sensitive, taking advantage of the opportunity to cut the greenhouse gas emissions driving global warming.

The eighth meeting of HIC was convened to further support and guide Member States in developing and implementing their national portfolios of action in the area of climate change and health. At the same time, taking place as it did in the midst of the COVID-19 pandemic, and inspired by the WHO Manifesto for a Healthy Recovery from COVID-19, the meeting sought to contribute to the discussion about rethinking our responses to global crises. The meeting had several specific objectives:

- to follow up on global and regional policy developments and progress on climate change and health, including how they might contribute to a healthy and green recovery from COVID-19;
- to launch the joint initiative of the United Nations Development Programme (UNDP) and WHO Regional Office for Europe on climate change and health;
- to provide an update on evidence of the health effects of climate change in the WHO European Region with respect to water scarcity and heat, including the impact of COVID-19;
- to address the building of climate-resilient health systems and environmentally sustainable health care facilities;
- to identify priorities and policy options to address health in nationally determined contributions (NDCs) under the Paris Agreement; and
- to provide an update on WHO’s CaRBonH tool for estimating the health gains of climate change mitigation.
The expected outcomes of the meeting were twofold. First, it was expected that the meeting would give participants an increased awareness and understanding of the latest available evidence on climate change and health, of Member State priorities and activities in this field, and of their progress in implementing their relevant national and international commitments. Second, the meeting was expected to continue building momentum on the centrality of health to climate change action in the lead-up to the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26).

**Meeting programme**

The meeting consisted of eight sessions over the course of two mornings. A number of Member State updates were sprinkled throughout the programme.

- The **opening session** provided an overview of the meeting’s background, objectives and expected outcomes.
- **Session 1** provided policy and scientific updates on climate change and health, including the WHO Manifesto; the European Commission’s Green Deal and proposed climate law; the European Climate and Health Observatory, managed jointly by the European Commission and the European Environmental Agency (EEA); and the latest report of the Lancet Countdown on Health and Climate Change.
- **Session 2** presented the new joint UNDP/WHO value proposition and service offering on climate change and health in UNDP’s Europe and Central Asia region.
- **Session 3** featured European Region updates on drought–health and heat–health.
- A **keynote** presentation outlined some approaches to implementing a healthy, climate-friendly recovery from COVID19.
- **Session 4** focused on building climate-resilient and -smart health care systems.
- **Session 5** explored the incorporation of health in NDCs and the use of CaRBonH software.
- **Session 6** featured main conclusions and next steps, as summarized below.

**Main conclusions**

- Climate change continues to accelerate dangerously, as attested by compelling scientific evidence.
- Recent data show the need for much stronger policies and actions to change the trajectory of carbon emission levels.
- With the European Green Deal and its commitment to achieving net zero emissions by 2050, the European Commission is setting an example that should resonate around the world.
- The year 2020 has been an unusual one that saw the convergence of two serious global crises: climate change and the COVID-19 pandemic.
- While air pollution declined due to pandemic lockdowns and major economic disruption, the decline is expected to be temporary. At the same time, air pollution is estimated to have increased COVID-19 mortality by 19% in the European Region.
- The pandemic offers countries a unique opportunity to embrace a climate-friendly recovery that integrates health, equity and sustainability in moving toward a zero-carbon economy.
The WHO Manifesto for a Healthy Recovery from COVID-19 offers six prescriptions for how to “build back (forward) better”, with climate change at their heart.

Coupling the recovery with action on climate change will provide a triple win: improved public health, a sustainable economy and environmental protection.

International solidarity, multilateral cooperation and strong international institutions should be at the forefront of the responses to both crises.

The new joint value proposition and service offering from the WHO Regional Office for Europe and UNDP will provide Member States with better support on climate change and health.

Health needs to be high on the agenda at COP26. The Race to Zero coalition should likewise be prioritizing health concerns.

Access to evidence on climate and health continues to improve, thanks to initiatives such as the European Climate and Health Observatory, bolstering advocacy for stronger action.

There is consensus that climate change will adversely affect public health in all countries.

Heat waves and droughts, and their adverse effects on health, are increasing, driven largely by climate change.

The various pathways underlying drought-related health problems need to be addressed using different strategies.

The number and coverage of heat–health action plans (HHAPs) need to be expanded. The updating of the 2008 WHO guidance is fully justified.

The population groups who are most vulnerable to heat also tend to be the ones most vulnerable to COVID-19, which has put additional strain on health systems, health workers and other frontline workers.

The health sector generates a tremendous amount of emissions; it should show other sectors the way and decarbonize itself. One excellent way to do this is to help Operation Zero develop a European decarbonization framework and national roadmaps for the sector.

Health care facilities need to develop their adaptive capacity and climate resilience. The tools in the new WHO guidance can help health systems to educate their workforces on climate issues and to make health care systems climate resilient and environmentally sustainable.

It is important to equip and empower health care leaders to become advocates for action on health and climate change.

The links between air pollution, climate change and health are scientifically well established.

Measuring and monitoring the health co-benefits of mitigation actions strengthens the health argument in nationally determined contributions (NDCs).

Health co-benefits can be used to make a strong business case for ambitious climate action. The value of these co-benefits is estimated to be roughly double the cost of mitigation.

The CaRBonH tool is useful for estimating the value of potential health gains in different mitigation scenarios. The current version is designed for the national level in the European Region, but global and local versions are in the making.
Next steps

Representing the WHO Regional Office for Europe in its role as HIC secretariat, the European Centre for Environment and Health committed to carrying out the following actions before the next HIC meeting:

- communicating the outcomes of the present meeting at the meeting of the European Environment and Health Task Force in February 2021;
- publishing and launching a book of updated heat–health evidence, a policy brief on water scarcity and health, and health co-benefit estimates for the second round of NDCs;
- arranging some short thematic HIC webinars to be held virtually in 2021; and
- contacting HIC delegates with suggested health messaging for COP26, as well as information on possible side meetings and interventions.
Пезюме

Цели и задачи совещания

Рабочая группа по охране здоровья в условиях изменения климата (HIC) Европейской целевой группы по окружающей среде и здоровью служит катализатором действий по поддержке выполнения государствами-членами Европейского региона ВОЗ обязательств, принятых ими в Декларации Шестой министерской конференции по окружающей среде и охране здоровья 2017 года (Остравская декларация), в частности обязательства по защите здоровья населения от неблагоприятных последствий изменения климата. Рабочая группа HIC также способствует диалогу и сотрудничеству между странами и заинтересованными сторонами.

Европейская программа работы на 2020-2025 годы излагает видение того, каким образом Европейское региональное бюро ВОЗ может оказывать поддержку органам здравоохранения государств-членов в удовлетворении ожиданий их граждан в отношении обеспечения возможности для развития здорового общества, в котором действия общественного здравоохранения и разумная государственная политика - в том числе политика в области смягчения последствий изменения климата и адаптации - будут способствовать улучшению качества жизни и благополучия. Глобальная стратегия ВОЗ в области здоровь, окружающей среды и изменения климата 2019 года закладывает четкую основу для решения существующих и возникающих экологических рисков для здоровья, включая изменение климата, до 2030 года.

Изменение климата и пандемия COVID-19 представляют собой угрозу общественному здравоохранению глобального масштаба. Кризис общественного здравоохранения, вызванный COVID-19, позволяет извлечь многочисленные уроки для решения насущной проблемы изменения климата. Решения и инвестиции, направленные на краткосрочное и долгосрочное восстановление после пандемии, должны быть здоровыми, экологичными и чувствительными к изменениям климата, и учитывающими возможности сокращения выбросов парниковых газов, вызывающих глобальное потепление.

Восьмое совещание HIC было направлено на укрепление поддержки и предоставление дальнейшего руководства государствам-членам в разработке и реализации их национальных комплексов мер в области изменения климата и здоровья. Одновременно с этим, совещание, прошедшее в разгар пандемии COVID-19 и вдохновленное Программным заявлением ВОЗ о принципах здорового восстановления после пандемии COVID-19, было направлено на обсуждение аспектов, связанных с переосмыслением мер реагирования на глобальные кризисы. Совещание имело ряд конкретных целей:

- предоставление обновленной информации о разработке глобальной и региональной политики и мониторинг прогресса в области изменения климата и здоровья, в том числе содействия здоровому и экологическому восстановлению после пандемии COVID-19;
- осуществление совместной инициативы Программы развития Организации Объединенных Наций (ПРООН) и Европейского регионального бюро ВОЗ в области изменения климата и здоровья;
• предоставление обновленной информации о воздействии изменения климата на здоровье в Европейском регионе ВОЗ в отношении нехватки воды и периодов жары, с учетом воздействия пандемии COVID-19;
• решение вопроса о создании систем здравоохранения, устойчивых к изменению климата, и экологически устойчивых медицинских учреждений;
• определение приоритетов и вариантов политики для решения проблем охраны здоровья в рамках определяемых на национальном уровне вкладов (NDC) в соответствии с Парижским соглашением;
• предоставление обновленной информации об инструменте ВОЗ CaRBonH tool для оценки мер в области укрепления здоровья от смягчения последствий изменения климата.

Ожидаемые результаты совещания были связаны с двумя основными аспектами. Во-первых, ожидалось, что совещание будет способствовать повышению информированности участников и их более глубокому пониманию последних имеющихся данных в области изменения климата и охраны здоровья, приоритетов и деятельности государств-членов в этой сфере, а также прогресса в выполнении странами соответствующих национальных и международных обязательств. Во-вторых, ожидалось, что совещание продолжит работу по укреплению центральной роли вопросов охраны здоровья в действиях по смягчению последствий изменения климата в преддверии 26-й Конференции сторон Рамочной конвенции Организации Объединенных Наций об изменении климата (КС-26).

Программа совещания

Совещание проходило в течение двух дней и состояло из восьми сессий. Обновленная информация государств-членов была распределена по всей программе.

• На открытии был представлен обзор ситуации, цели и ожидаемые результаты совещания.
• Сессия 1 содержала обновленную информацию по вопросам политики и научную информацию по вопросам изменения климата и охраны здоровья, в том числе информацию о: Программном заявлении ВОЗ о принципах здорового восстановления после пандемии COVID-19; Европейской зеленой сделке и предложенному Европейскому климатическому закону; Европейской обсерватории климата и здоровья, управляемой совместно Европейской комиссией и Европейским агентством по окружающей среде (ЕАОС); и последнему докладу в журнале Lancet Countdown о воздействии на здоровье изменения климата.
• На Сессии 2 было представлено новое совместное ценостное предложение ПРООН/ВОЗ в области изменения климата и здоровья в ПРООН регионе Европы и Центральной Азии.
• Сессия 3 была посвящена обсуждению обновленной информации о воздействии засухи и аномальной жары на здоровье жителей Европейского региона.
• В основном докладе были изложены некоторые подходы к обеспечению здорового и экологически безопасного восстановления после COVID-19.
• Сессия 4 была посвящена созданию устойчивых к изменению климата и умных систем здравоохранения.
Основные выводы

- Изменение климата продолжает ускоряться опасными темпами, о чем свидетельствуют убедительные научные данные.
- Последние данные показывают необходимость осуществления гораздо более жесткой политики и действий для изменения траектории уровня выбросов углерода.
- Европейская зеленая сделка и обязательство достижения к 2050 году нулевого уровня выбросов парниковых газов, принятые Европейской комиссией, показывают пример, который должен найти отклик во всем мире.
- Несмотря на снижение уровней загрязнения воздуха в связи с режимом строгой изоляции в период пандемии и серьезными экономическими потрясениями, ожидается, что это снижение будет временным. В то же время, согласно оценкам, загрязнение воздуха привело к увеличению смертности от COVID-19 в Европейском регионе на 19%.
- Пандемия предлагает странам уникальную возможность начать экологически безопасное восстановление, объединив вопросы здоровья, справедливости и устойчивости в рамках перехода к экономике с нулевым выбросом углерода.
- Программное заявление ВОЗ о принципах здорового восстановления после пандемии COVID-19 предлагает шесть рекомендаций посткризисного «восстановления или построения» с учетом вопросов изменения климата.
- Сочетание восстановления после пандемии с действиями по борьбе с изменением климата обеспечит тройную победу: улучшение здоровья населения, создание устойчивой экономики и защиту окружающей среды.
- Международная солидарность, многостороннее сотрудничество и сильные международные институты должны играть ведущую роль в реагировании на оба кризиса.
- Новое совместное ценностное предложение Европейского регионального бюро ВОЗ и ПРООН позволит обеспечить предоставление государствам-членам более эффективной поддержки в области изменения климата и здоровья.
- Вопросы охраны здоровья должны быть в центре внимания на КС-26. Коалиция «Race to Zero» также должна уделить приоритетное внимание проблемам здоровья.
- Доступ к фактическим данным по изменению климата и здоровью продолжает улучшаться благодаря инициативам, таким как Европейская обсерватория по климату и здоровью, способствующим пропаганде более активных действий.
- Существует консенсус в отношении того, что изменение климата отрицательно скажется на здоровье населения во всех странах.
- Волны аномальной жары и засухи и их неблагоприятное воздействие на здоровье продолжают учащаться, что в значительной степени обусловлено изменением климата.
• Различные пути воздействия засухи на здоровье необходимо решать с помощью различных стратегий.
• Число и охват планов действий по защите здоровья населения от воздействия аномальной жары (ННАР) необходимо расширить. Обновление Руководства ВОЗ от 2008 года полностью оправдано.
• Группы населения, наиболее уязвимые к жаре, также, как правило, являются наиболее уязвимыми к COVID-19, что создает дополнительную нагрузку на системы здравоохранения, медицинских работников и других работников первой линии.
• Сектор здравоохранения генерирует огромное количество выбросов; он должен показать пример другим секторам и декарбонизироваться. Отличный способ сделать это - оказать содействие Operation Zero в разработке Европейской рамочной основы декарбонизации и национальных дорожных карт для этого сектора.
• Медицинским учреждениям необходимо наращивать потенциал адаптации и устойчивости к изменению климата. Инструменты нового руководства ВОЗ предлагают содействие системам здравоохранения в обучении своих сотрудников по вопросам изменения климата и обеспечения устойчивости систем здравоохранения к изменению климата и их экологической устойчивости.
• Важно расширить возможности и инструментарий руководителей здравоохранения в информационно-пропагандистской деятельности в отношении здоровья и изменения климата.
• Связь между загрязнением воздуха, изменением климата и здоровьем научно доказана.
• Количественная оценка и мониторинг сопутствующих выгод для здоровья от действий по смягчению последствий изменения климата способствуют укреплению аргументов в пользу здоровья в определяемых на национальном уровне вкладах (NDC).
• Сопутствующие выгоды для здоровья могут быть использованы для убедительного экономического обоснования широкомасштабных действий по борьбе с изменением климата. Значимость сопутствующих выгод, по оценкам, примерно вдвое превышает объемы затрат на осуществление действий по смягчению последствий изменения климата.
• Инструмент CaRBonH полезен для анализа значимости потенциальных выгод для здоровья при различных сценариях действий по смягчению последствий изменения климата. Текущая версия инструмента разработана для анализа на национальном уровне в странах Европейского региона; глобальная и локальные версии находятся в процессе разработки.

Следующие шаги

Представляя Европейское региональное бюро ВОЗ в качестве секретариата НИС, Европейский центр ВОЗ по окружающей среде и охране здоровья принял на себя обязательство до следующего заседания НИС осуществить следующие шаги:

• сообщение результатов проведенной встречи на совещании Европейской целевой группы по окружающей среде и здоровью в феврале 2021 года;
- публикация и выпуск обновленных данных к руководству о воздействии жары на здоровье, аналитического обзора по проблеме нехватки воды и здоровья, а также оценок сопутствующих выгод для здоровья для второго раунда NDC;
- организация в 2021 году коротких тематических вебинаров HIC в виртуальном формате;
- обращение к делегатам HIC по вопросу о сообщениях о последствиях изменения климата для здоровья для КС-26, а также за информацией о проведении возможных параллельных совещаний и мероприятий.
Introduction

The eighth meeting of the Working Group on Health in Climate Change (HIC) was organized by the European Centre for Environment and Health of the WHO Regional Office for Europe, acting in its role as secretariat of HIC. It took place via videoconference on the mornings of 8 and 9 December 2020. The meeting rapporteur was Misha Hoekstra.

The 110 participants in the two-day meeting represented 35 Member States of the WHO European Region, WHO and a variety of European and global organizations addressing issues of climate change and health. See Annex 1 for the full list of participants.

The meeting was financially supported by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany.

Opening session. Welcome and opening

Nino Berdzuli, Director of the Division of Country Health Programmes in the WHO Regional Office for Europe, opened the meeting by welcoming participants, underscoring the gravity of climate change and its impacts on human health, and reassuring them of the Regional Office’s commitment to making climate change a key element of its efforts to implement a green, healthy recovery from the COVID-19 pandemic. She was followed by Francesca Racioppi, Head of Office at the WHO European Centre for Environment and Health, who noted that despite the pandemic, the need to address climate change remains just as urgent as ever, and that the pandemic has brought a number of unanticipated benefits for climate and health – including a greater acceptance of virtual meetings like the present one, which enables broader participation with a much smaller carbon footprint.

They were followed by Oliver Schmoll, Programme Manager for Water and Climate at the Centre, who provided an overview of the meeting background, objectives and expected outcomes.

HIC was established under the European Environment and Health Task Force. One of its chief responsibilities is to support Member States of the European Region in developing their national portfolios of action in the area of climate change and health, as stipulated by the 2017 Declaration of the Sixth Ministerial Conference on Environment and Health (the Ostrava Declaration). Progress in implementing portfolio actions, including actions on climate change, is tracked within the European Environment and Health Process, using the same indicators that Member States use to report on their progress in achieving Sustainable Development Goal (SDG) targets.

The 15 months that had passed since the seventh meeting of HIC had seen several developments of particular relevance for the Working Group. First, as COVID-19 began to spread across the world and affect every aspect of modern human life, WHO consulted throughout its organization and developed the WHO Manifesto for a Healthy Recovery from COVID-19, a manifesto in which climate change action plays a prominent role. Second, the European Programme of Work (2020–2025) set out a vision for how the WHO Regional Office can support Member State health authorities in meeting their citizens’ expectations of being able to thrive in healthy communities where public health actions and appropriate public policies – including policies on climate change mitigation and adaptation – will secure them improved quality of life and well-
being. Third, the European Climate Law, which seeks to enshrine the goal of making the European Union (EU) climate neutral by 2050 – was proposed and moved closer to passage (see Session 1). Finally, the WHO European Centre for Environment and Health prepared a publication, now in press, on the evidence base for heat–health action planning (see Session 3).

The eighth meeting of HIC was convened to further support and guide Member States in developing and implementing their national portfolios of action in the area of climate change and health. At the same time, taking place as it did in the midst of the COVID-19 pandemic, and inspired by the WHO Manifesto, the meeting sought to contribute to the debate about how we should respond to global crises. The meeting also had several specific objectives:

- to follow up on global and regional policy developments and progress on climate change and health, including how they might contribute to a healthy and green recovery from COVID-19;
- to launch the joint initiative of the United Nations Development Programme (UNDP) and WHO Regional Office for Europe on climate change and health;
- to provide an evidence update on the health effects of climate change in the WHO European Region with respect to water scarcity and heat, including the impact of COVID-19;
- to address the building of climate-resilient health systems and environmentally sustainable health care facilities;
- to identify priorities and policy options for addressing health in nationally determined contributions (NDCs) under the Paris Agreement; and
- to provide an update on WHO’s CaRBonH tool for estimating the health gains of climate change mitigation.

The expected outcomes of the meeting were twofold. First, it was expected that the meeting would give participants an increased awareness and understanding of the latest available evidence on climate change and health, of Member State priorities and activities in this field, and of their progress in implementing their relevant national and international commitments. Second, the meeting was expected to continue building momentum on the centrality of health to climate change action in the lead-up to the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26).

The participants approved the agenda and the programme for the meeting (see Annex 2 and Annex 3, respectively). Dmitri Boulakovski, Andrei Dolgov, Julia Erickson and Elena Gurkina provided Russian–English and English–Russian interpretation, and Misha Hoekstra served as rapporteur.

**Session 1. Setting the stage in policy and science**

The first thematic session covered recent policy and scientific developments in climate change and health, including the WHO Manifesto; the European Green Deal and the European Climate Law; the European Climate and Health Observatory; and the latest Lancet Countdown on Health and Climate Change report.
The COVID-19 pandemic has thrown the world into an extraordinary state of crisis. In the WHO Manifesto for a Healthy Recovery from COVID-19, WHO has embraced pandemic recovery as an opportunity to fast-track overdue actions that will have far-reaching benefits for human health and well-being. The manifesto lays out the following six prescriptions for governments to heed as they draw up economic stimulus and recovery packages.

1. Protect and preserve the source of human health: Nature.
2. Invest in essential services, from water and sanitation to clean energy in health care facilities.
3. Ensure a quick and healthy energy transition.
4. Promote healthy, sustainable food systems.
5. Build healthy, liveable cities.
6. Stop using taxpayers’ money to fund pollution.

The prescriptions come with 80 concrete areas of action for governments to incorporate into their recovery packages, including many climate change mitigation and adaptation actions. Grounded in the SDGs and the Paris Agreement, these actions will enable countries to make tremendous progress on improving quality of life for their populations in the coming decades while safeguarding their health. The present moment has clarified the importance of making human health part of all policymaking. It is no time to leave the development of recovery plans to economists; the health sector needs to claim its place at the table and advocate giving health a central role in these packages.

With the European Green Deal and the proposed European Climate Law, the European Commission has already committed itself to addressing climate change head on. Climate change has been a signature issue for the Commission since it entered office a year ago, and the European Green Deal its flagship proposal. The Green Deal is a growth strategy for the EU that will lock in a commitment to carbon neutrality by 2050 and mainstream climate considerations in all EU legislation. The proposal is far-reaching, encompassing not only green energy but changes to the built environment, ecosystem restoration, biodiversity, a goal of zero pollution, healthy and environmentally friendly food production and a shift to smart mobility. Financing will be crucial to realizing this vision, and the cost of the transition is pegged at €750 billion. The Commission has resisted pressure to abandon the Green Deal in the face of COVID-19 and instead incorporated major elements of it into the pandemic recovery package being finalized in December 2020. The 2030 climate target has not been set yet, but a 55% reduction in greenhouse gas emissions from the 1990 baseline is being debated – a target whose achievement is also projected to reduce air pollution by 60%. Many details still need to be worked out before the Climate Law is adopted in 2021, especially as it will require endorsement by every EU member state.

Participants then heard briefly about the resources that will become readily available through the new European Climate and Health Observatory, an online platform that will be piloted in February 2021. An initiative of the European Commission and the European Environment Agency, the Observatory aims to expand the climate and health knowledge base for policymakers, and to bring relevant actors together in order to pool their expertise and tools. Its country profiles will bring together resources for 38 European countries, and it will also feature a variety of materials on specific health impacts of climate change. The platform will be housed on the EU’s Climate-ADAPT website.
Another invaluable online resource, the *Lancet Countdown on Health and Climate Change*, launched its 2020 report the day before the HIC meeting. This year’s report tracked 43 indicators in the areas of health impacts, adaptation, mitigation and health co-benefits, economics and finances, and public and political engagement. The editors distilled the following three key messages from the data.

1. No country is immune from the health impacts of climate change – and the people who are most vulnerable will bear the brunt of the burden.
2. The COVID-19 pandemic and climate change are converging crises, and governments do not have the luxury of tackling them separately.
3. Aligning the global recovery from the pandemic with action on climate change will secure a “triple win” in the form of better public health, a more sustainable economy and stronger environmental protection.

Among the key findings: global heat mortality in older people has increased by more than 50% since 2000; 145–565 million people in coastal areas will be exposed to rising seas; two thirds of cities anticipate that climate change will seriously compromise their public health infrastructure; global coal consumption continued to rise until the pandemic hit; and the major emitters of greenhouse gases – the United States, China and the EU – largely ignore health in their NDCs, while poorer and more climate-vulnerable countries are leading the way in framing climate change as a health issue.

The ensuing discussion underscored the need to consider all the consequences of proposed adaptation and mitigation interventions. Doing that will enable the identification of additional co-benefits and unintended consequences. For instance, wetland restoration can provide flood protection but also facilitate the breeding of disease-bearing mosquitoes.

**Session 2. A joint UNDP/WHO value proposition and service offering on climate change and health**

The second session saw the publication launch for UNDP and WHO’s joint value proposition and service offering on climate change and health in the European Region. Entitled *Addressing climate change and health in the Europe and Central Asia region*, the value proposition was developed by the WHO Regional Office for Europe in collaboration with the UNDP Regional Bureau for Europe and the Commonwealth of Independent States. The joint offer is a natural outgrowth of the two organizations’ ongoing collaboration, most notably on the 2030 Agenda for Sustainable Development (Agenda 2030), and it draws on their complementary approaches to climate change and health. Fully 80% of Member States in the Region report that the societal dimension most at risk under climate change is health. The joint offer to Member States is intended to help them strengthen health adaptation and mitigation efforts with better evidence and risk information, the mainstreaming of climate change and health in the policies of other sectors, capacity-building, better emergency preparedness, more environmentally sustainable procurement and the promotion of healthier, more climate-friendly lifestyles.
Session 3. Update on the evidence of the health effects of climate change in the European Region

The third session featured European Region updates on drought–health pathways and on heat–health prevention, particularly in the context of the COVID-19 pandemic.

The connections between drought and health are complex, but examining the drivers of drought and the mechanisms that link it to health risks is critical for finding the best ways to address these risks. It can take two years for a meteorological drought to progress to a soil moisture drought and thence to a hydrological drought. Drought severity is affected by seasonal timing, geology and human activities such as domestic consumption, irrigation practices and dams.

- **Meteorological droughts** are linked to respiratory disorders, likely through the accumulation of polluting agents such as ozone, particulate matter and airborne dust.
- **Soil moisture droughts** are correlated with wildfires, which increase the risk for respiratory and cardiovascular problems, and with decreased agricultural production, which can lead to decreased food security, micronutrient deficiencies, impaired immune systems and compromised physical and cognitive development.
- **Hydrological droughts** are associated with health risks from increased concentrations of waterborne pathogens and other contaminants, impaired sanitation and hygiene, and the spread of mosquito-borne diseases.

An understanding of the various pathways suggests potential adaptation strategies that can help address each one – for instance, monitoring soil moisture to forecast wildfires. Unfortunately, little research has been done on drought in the Region, even though much of it – particularly southern Europe – is projected to become substantially drier by the end of the century.

Participants then heard about updated evidence on heat–health action plans (HHAPs) in the European Region. As part of its revision of the seminal HHAP guidance it published in 2008, the European Centre for Environment and Health has collated the vast amount of research undertaken since then. It is publishing a book summarizing the evidence, which will be available in the next few months. Among the many key findings are the following.

- The evidence is increasingly clear that the frequency and intensity of heat waves are accelerating throughout the WHO European Region.
- The evolution of heat risks and their impact on health is underpinned by the changing climate, socioeconomic factors, access to health care, urbanization and the ageing of populations, among other factors.
- People tend to underestimate the health risks of heat events.
- Inhabitants of warmer areas tend to be less vulnerable to heat than those in temperate climes due to adaptive strategies and acclimatization – one reason that HHAPs need to be tailored to local conditions.
- Improved weather forecasting is enabling longer lead times for warnings of heat events. The warnings themselves have migrated to web-based and mobile platforms.
- In the European Region, people spend most of their time indoors, and a high proportion of hazardous exposure to heat occurs indoors.
An increasing variety of passive interventions in buildings have proven effective. Air conditioning remains the only practical active solution and has many drawbacks, including inequity of access, high energy consumption and maladaptation to high temperatures.

Surveillance of the health impacts of heat can be incorporated into existing health surveillance systems. Much more monitoring and evaluation of HHAPs is needed in order to improve their effectiveness.

Management of extreme heat risk during the COVID-19 pandemic has presented some daunting challenges, as the Region learned this past summer. Anticipating these challenges, the Global Heat Health Information Network (GHHIN) mobilized dozens of experts to produce the Extreme Heat and COVID-19 Information Series in short order, releasing a hundred pages of guidance and evidence by early summer 2020, including a technical briefing, FAQ and checklists. Among other matters, the materials addressed the following four challenges that the pandemic poses during heat waves.

1. The populations most vulnerable to the effects of hot weather – people who are elderly, have chronic diseases, are isolated or live in cities – are also most vulnerable to COVID-19. Fear of infection likely keeps people who need heat relief most from visiting cooling centres and health care services.
2. Public health prevention, advice and interventions for extreme heat became harder, more expensive, less effective and harder to implement – cooling spaces have less capacity, there are barriers to social outreach, and people eschew fans because they fear contagion.
3. Health workers and other frontline workers face extra challenges – personal protective equipment exacerbates heat stress, limited human resources are focused on COVID-19, and medical facilities are often filled to capacity.
4. Many decisions on managing COVID-19 and extreme heat are made locally and may be in conflict, especially with limited guidance and ad hoc policymaking, sending mixed messages to the public.

Discussion. With the explosion of new research, it was suggested that WHO harness artificial intelligence to help process all the evidence emerging.

In the discussion, it was noted that most heat-related mortality occurs on warm days rather than hot days, simply because the latter are much rarer. Yet lowering temperature thresholds for warnings may decrease compliance, so local research is needed to establish optimal thresholds, supplemented by better public education on how to protect oneself during the entire warm season. Research on personal protective equipment indicates that heat strain in hot weather depends less on the specific equipment than on interventions such as hydration and frequent work breaks; more guidance is needed.

Member State updates

Throughout the programme, participants were invited to provide updates on national experiences in implementing actions on health and climate. For convenience, these updates are summarized below.
In France, the government increased the severity of heat warnings last summer in areas with high infection rates of COVID-19. Heat communications omitted mention of fans and reminded people to wear masks outdoors. COVID-19 mortality ended up being quite low during heat waves, with only 100 deaths versus 2000 heat-related deaths. Yet the virus may have played an indirect role in heat mortality, particularly in younger cohorts, where overall mortality was higher than expected, perhaps because the pandemic decreased the perception of heat risks.

One priority in Germany’s new global health strategy is developing a holistic approach to the environment, climate change and public health. In 2020, the national health ministry established a directorate on health protection and sustainability that seeks to incorporate climate change issues into health systems, prioritizing heat waves and vector-borne diseases. In 2019, the Lancet Countdown issued a policy brief on Germany, recommending the health sector develop more HHAPs, move toward sustainability and climate neutrality, and incorporate climate change in health worker training. It just published a second brief urging the adoption of triple-win policies in post-pandemic recovery planning, addressing nutrition, physical mobility and urban planning. While Germany is already addressing most of these areas, the briefs provide welcome support for its efforts.

Research in Ireland has confirmed that Irish climate trends mirror global ones. Floods, precipitation and storm events are the greatest cause for health concerns, followed by ultraviolet radiation and poor air quality. The health sector recently published its national adaptation plan, which prioritizes health service delivery and resilience in the face of extreme weather events. The recent state of the environment report devotes an entire chapter to health and highlights the close relationship between environment and health. In drawing up its COVID-19 recovery packages, the government has focused extensively on health and environmental concerns.

In Kyrgyzstan, the health sector was the first sector to draw up a climate adaptation plan. Estimated mortality rates from PM$_{2.5}$ and PM$_{10}$ are among the highest in the world, yet decision-makers have done little to address the problem due to poor awareness of environmental risks to health. The Kyrgyz Environmental Protection Agency and the Ministry of Health have submitted a joint request for WHO assistance in assessing the health co-benefits and health harms of national policies, particularly in the area of transport.

The Netherlands has investigated the carbon footprint of its health sector and discovered that the production and transportation of goods, especially those from outside Europe, are the biggest contributors. COVID-19 has made the sector more aware of the importance of resilient supply chains. In 2021, Dutch researchers will examine why the environmental impact of chemicals used in health care is so high. They will also try to look beyond emissions to look at the sector’s impact on air, water and land/food to get a better picture of its total environmental footprint.

North Macedonia’s enhanced NDC was being finalized for government approval. It proposed ambitious investments in climate change mitigation, totalling 7.7% of the country’s gross domestic product. The proposed NDC highlights job creation co-benefits to help make the business case for mitigation to policymakers. Having just learned about the CaRBonH tool from WHO, the North Macedonian participants planned to use it to calculate the value of health co-benefits and strengthen the case for mitigation.

While most people probably think Sweden is less affected by climate change than other countries, temperatures are projected to warm twice as fast as the global average, and during the long severe heat wave of 2018, mortality was almost 50% above normal. Areas with HHAPs
fared better, though, and more HHAPs are being implemented. Issues to address include cold storage of drugs during heat waves and greater health sector awareness about the spread of tick-borne diseases and the need to reduce the sector’s carbon footprint.

The United Kingdom updated their heat communications before last summer and took a hypervigilant approach to heat during the pandemic. During the summer’s three heat waves, excess deaths spiked more than usual, especially among the elderly, but also among those aged 45 to 64, totalling more than 2500 – the highest number on record. The health authorities suspect that the magnitude of the heat was not the main factor in the higher mortality, but they are still in the process of analysing the data.

**Keynote. From COVID-19 to COP26: integrating climate action with pandemic recovery**

Andy Haines of the Centre on Climate Change and Planetary Health delivered the keynote, outlining key elements of a healthy, climate-friendly recovery from COVID-19.

He noted that one silver lining in the economic fallout from the pandemic has been its beneficial effects on the environment – and thus human health. It is estimated that the resulting declines in PM$_{2.5}$ levels, for instance, will have averted more than 100 000 premature deaths in China and more than 20 000 in continental Europe. Nevertheless, air pollution is estimated to have increased COVID-19 mortality by 19% in Europe. Together, these figures point to some of the health co-benefits of a low-carbon recovery from COVID-19. Terrible as the pandemic has been, at least there are vaccines on the horizon; there is no vaccine for climate change. That is why it is imperative for decision-makers to take the opportunity that recovery packages offer and use them to make good on their commitments to climate change mitigation.

Fortunately, mitigation interventions can provide a broad array of health co-benefits.

- Phasing out fossil fuel consumption would save 3.6 million premature deaths due to ambient air pollution each year (430 000 in the European Region).
- Investing in active, low-carbon transport would also bring major reductions in diabetes, heart disease and other chronic diseases – and corresponding savings in health expenditure. If urban residents in England and Wales walked and cycled as much as Copenhageners, they would save national health service an estimated €20 billion over the course of 20 years.
- Increasing city green and blue spaces would have a variety of mental health benefits, as well as reducing urban heat island effects and serving as carbon sinks.
- Ecosystem restoration would improve water quantity and quality, improve flood protection and capture additional carbon.
- Insulating and ventilating housing stock would reduce exposure to particulate matter, radon, smoke, cold and mould, thereby preventing 5400 premature deaths annually in the United Kingdom alone.
- Adopting a “planetary health diet” rich in vegetables and fruits and low in red meat and processed foods would increase food security and prevent 10 million premature adult deaths around the world each year.
The health sector is itself a major emitter of greenhouse gases and should be willing to make the move to net zero emissions that it is asking other sectors to undertake. Ocean-based mitigation is another often overlooked area, with the potential for major reductions in emissions in the energy, shipping and food production sectors.

A global survey last spring found that 65% of the world population favoured a green recovery from COVID-19. Yet the $12 trillion in post-pandemic stimulus is decidedly not climate-friendly. Countries must halt subsidies that are harmful to health and climate and invest instead in ensuring that renewable energy is economically competitive. Moreover, in recapitalizing companies affected by the pandemic, they need to utilize health and environmental criteria as well as economic one.

**Session 4. Building climate-resilient and -smart health care systems**

Session 4 considered climate-resilient and -smart health care systems, with a close look at WHO tools for health care facilities and Operation Zero’s framework for decarbonizing health care in the European Region.

WHO has been developing **tools to help health care facilities become more climate-resilient and environmentally sustainable**. The tools examine not only the infrastructure of these facilities, but also health workforce, energy, health care waste, and water, sanitation and hygiene (WASH). In the face of shocks such as extreme weather events, a resilient system will not only recover but actually improve its capacity to respond to future crises. The first tool, the *WHO guidance for climate resilient and environmentally sustainable health care facilities*, was launched in October 2020. The guidance features a series of checklists that can be used to establish baseline vulnerabilities and to prioritize an extensive list of possible interventions to make facilities more climate-resilient and environmentally sustainable. WHO will be following up on this publication with country pilots, training activities and the development of another tool that focuses more on helping health care facilities assess climate change impacts and vulnerabilities.

The session then turned to Operation Zero, an effort to build a **framework for the decarbonization of health care** in the European Region. Operation Zero is an initiative of Health Care Without Harm (HCWH), a non-profit European network that seeks to transform health care in order to reduce its environmental footprint and make it a community anchor for environmental sustainability. HCWH has developed decarbonization pathways for decarbonizing the health sector in 43 countries, organized into typologies; now it wants to work in the European Region. With Operation Zero, its vision is to help every European country to develop a national decarbonization plan for its health care sector that charts a pathway to net zero emissions. To do that, it is producing a comprehensive overview of the sector’s carbon footprint in the region, highlighting carbon hotspots, and using that to develop a new framework that can be applied to any national health care system. Likely components in the national decarbonisation plans include carbon footprinting, emissions budgets and targets, and hotspot analysis. To realize this vision, HCWH is now recruiting four European health ministries (or health systems) to serve as pilots in 2021.
Session 5. Climate change mitigation

The last thematic explored several health aspects of climate change mitigation, including the incorporating health into NDCs and the use of CaRBonH software.

The session began with on priorities and policy options for addressing health in NDCs. Health co-benefits ought to provide strong motivation for pursuing more ambitious action on climate change – especially considering that, if the mitigation goals of the Paris Agreement are met, the economic benefits of the resulting health co-benefits would be twice as much as their cost. Yet few countries in the European Region acknowledge health in their NDCs, and only 10% of countries worldwide address health co-benefits specifically. Accordingly, WHO launched an initiative in early 2020 to help low- and middle-income countries quantify the potential health and economic benefits of different mitigation commitments that they might include in their 2020 NDC revisions. The most common scenarios that countries looked at were cutting energy emissions (reducing morbidity and mortality from air pollution), investing in sustainable food systems (reducing malnutrition and noncommunicable disease) and promoting active transport (reducing noncommunicable disease and improving well-being).

Central to these quantification efforts has been the WHO carbon reduction benefits on health (CaRBonH) software. CaRBonH is a decision-support tool that estimates the health and economic co-benefits of different low-carbon transition pathways. It currently provides projections through 2030, and it is freely available online. The basic data that a user needs to provide are the reductions in key pollutants linked to greenhouse gas emissions. The tool is preloaded with demographic, epidemiological and exposure data, which the user can supplement to improve the accuracy of the results. Outputs include various measures of averted morbidity and mortality, as well as economic measures such as health care costs, productivity losses and welfare losses due to pain and suffering. Importantly, especially for smaller countries, CaRBonH will calculate the spillover impact of transboundary pollutants from neighbouring countries. Participants saw the results of several simulations, including scenarios based on full achievement of the NDCs in the European Region and others based on the European Green Deal. WHO is now working on developing a new interface to facilitate uptake and utility, and developing global and local versions of the tool. If there is interest, WHO is open to incorporating other health co-benefits into the CaRBonH tool, using a modular approach.

In the discussion, the climate change and health team at Public Health England invited people from other public health agencies in the Region to propose joint sessions at COP26, and to contribute adaptation and better practice examples to their global health materials.

Session 6. Conclusions and next steps

The final session consisted of some preliminary conclusions and a short list of next steps.

The following list of main conclusions was drawn from the meeting by the HIC secretariat and co-chairs.

- Climate change continues to accelerate dangerously, as attested by compelling scientific evidence.
- Recent data show the need for much stronger policies and actions to change the trajectory of carbon emission levels.
With the European Green Deal and its commitment to achieving net zero emissions by 2050, the European Commission is setting an example that should resonate around the world.

The year 2020 has been an unusual one that saw the convergence of two serious global crises: climate change and the COVID-19 pandemic.

While air pollution declined due to pandemic lockdowns and major economic disruption, the decline is expected to be temporary. At the same time, air pollution is estimated to have increased COVID-19 mortality by 19% in the European Region.

The pandemic offers countries a unique opportunity to embrace a climate-friendly recovery that integrates health, equity and sustainability in moving toward a zero-carbon economy.

The WHO Manifesto for a Healthy Recovery from COVID-19 offers six prescriptions for how to “build back (forward) better”, with climate change at their heart.

Coupling the recovery with action on climate change will provide a triple win: improved public health, a sustainable economy and environmental protection.

International solidarity, multilateral cooperation and strong international institutions should be at the forefront of the responses to both crises.

The new joint value proposition and service offering from the WHO Regional Office for Europe and UNDP will provide Member States with better support on climate change and health.

Health needs to be high on the agenda at COP26. The Race to Zero coalition should likewise be prioritizing health concerns.

Access to evidence on climate and health continues to improve, thanks to initiatives such as the European Climate and Health Observatory, bolstering advocacy for stronger action.

There is consensus that climate change will adversely affect public health in all countries.

Heat waves and droughts, and their adverse effects on health, are increasing, driven largely by climate change.

The various pathways underlying drought-related health problems need to be addressed using different strategies.

The number and coverage of heat–health action plans (HHAPs) need to be expanded. The updating of the 2008 WHO guidance is fully justified.

The population groups who are most vulnerable to heat also tend to be the ones most vulnerable to COVID-19, which has put additional strain on health systems, health workers and other frontline workers.

The health sector generates a tremendous amount of emissions; it should show other sectors the way and decarbonize itself. One excellent way to do this is to help Operation Zero develop a European decarbonization framework and national roadmaps for the sector.

Health care facilities need to develop their adaptive capacity and climate resilience. The tools in the new WHO guidance can help health systems to educate their workforces on climate issues and to make health care systems climate resilient and environmentally sustainable.

It is important to equip and empower health care leaders to become advocates for action on health and climate change.
The links between air pollution, climate change and health are scientifically well established.

Measuring and monitoring the health co-benefits of mitigation actions strengthens the health argument in nationally determined contributions (NDCs).

Health co-benefits can be used to make a strong business case for ambitious climate action. The value of these co-benefits is estimated to be roughly double the cost of mitigation.

The CaRBonH tool is useful for estimating the value of potential health gains in different mitigation scenarios. The current version is designed for the national level in the European Region, but global and local versions are in the making.

Representing the WHO Regional Office for Europe in its role as HIC secretariat, the European Centre for Environment and Health committed to carrying out the following next steps before the next HIC meeting:

- communicating the outcomes of the present meeting at the meeting of the European Environment and Health Task Force in February 2021;
- publishing and launching a book of updated heat–health evidence, a policy brief on water scarcity and health, and health co-benefit estimates for the second round of NDCs;
- arranging some short thematic HIC webinars to be held virtually in 2021; and
- contacting HIC delegates with suggested health messaging for COP26, as well as information on possible side meetings and interventions.

After thanking the organizers, presenters and participants, HIC co-chairs Jutta Litvinovitch and Inge Heim closed the meeting.
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Interpreters
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Andrei Dolgov
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Annex 2. Meeting agenda

1. Opening and adoption of agenda and programme
2. Update on climate change and health in global and regional initiatives, including consideration of a healthy and green recovery from COVID-19
3. Launch of the joint UNDP–WHO Regional Office for Europe initiative on addressing climate change and health
4. Update on the evidence of the health effects of climate change in the WHO European Region:
   a. Water scarcity
   b. Heat–health
5. Building climate-resilient health systems
6. Climate change mitigation and estimation of health gains
7. Summary and next steps
8. Closure of the meeting
## Annex 3. Meeting programme

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td><strong>Tuesday, 8 December 2020</strong></td>
<td></td>
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<tr>
<td>09:00 – 09:30</td>
<td>Opening and welcome <em>(Nino Berdzuli and Francesca Racioppi, WHO Regional Office for Europe)</em></td>
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<td></td>
<td>Background, objectives and expected outcomes <em>(Oliver Schmoll, WHO European Centre for Environment and Health)</em></td>
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<tr>
<td>09:30 – 11:00</td>
<td><strong>Session 1: Setting the stage in policy and science</strong></td>
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<td>WHO global policy updates on climate change and health <em>(Maria Neira, WHO headquarters)</em></td>
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<td>The European Green Deal and cornerstones of the proposed European Climate Law <em>(Niels Schuster, European Commission)</em></td>
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<td>The European Climate and Health Observatory: current state and planned developments <em>(Hans-Martin Füssel, European Environment Agency)</em></td>
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<td></td>
<td>The Lancet Countdown 2020: tracking progress on health and climate change <em>(Ian Hamilton, Lancet Countdown)</em></td>
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<tr>
<td></td>
<td>Country interventions and discussion</td>
</tr>
<tr>
<td>11:00 – 11:10</td>
<td><strong>Health break</strong></td>
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<tr>
<td>11:10 – 11:40</td>
<td><strong>Session 2: A joint UNDP Regional Hub and WHO Regional Office for Europe value proposition and service offering on climate change and health</strong></td>
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<tr>
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<td>Building blocks of the joint value proposition <em>(Francesca Racioppi, WHO European Centre for Environment and Health, and Armen Grigoryan, United Nations Development Programme)</em></td>
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<tr>
<td></td>
<td>Country interventions and discussion</td>
</tr>
<tr>
<td>11:40 – 13:00</td>
<td><strong>Session 3: Update on the evidence of the health effects of climate change in the WHO European Region</strong></td>
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<tr>
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<td>Drought and health in the WHO European Region <em>(Ludovica Beltrame, Peter Vickerman and Thorsten Wagener, Bristol University, United Kingdom)</em></td>
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<td></td>
<td>Heat and health in the WHO European Region: updated evidence for effective prevention <em>(Gerardo Sanchez Martinez, UNEP Technical University of Denmark, and Francesca de’Donato, Regional Health Authority, Lazio Region, Italy)</em></td>
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<td></td>
<td>Management of extreme heat risk during the COVID-19 pandemic <em>(Joy Shumake-Guillenot, Joint WHO/WMO Office)</em></td>
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<td></td>
<td>Country interventions and discussion</td>
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<tr>
<td>13:00</td>
<td><strong>Closure of day 1 of the meeting</strong></td>
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</table>
Wednesday, 9 December 2020

09:00 – 09:45  **Keynote**

From COVID-19 to COP26: supporting a healthy, climate-friendly recovery (*Andy Haines, London School of Hygiene and Tropical Medicine, United Kingdom*)

Discussion

09:45 – 10:45  **Session 4: Building climate-resilient and -smart health systems**

Climate-resilient and environmentally sustainable health systems: special focus on health care facilities (*Elena Villalobos Prats and Carlos Corvalán, WHO headquarters*)

Operation Zero: building a framework for the decarbonization of health care in Europe (*Sonia Roschnik and Scott Brady, Health Care Without Harm*)

Country interventions and discussion

10:45 – 10:55  **Health break**

10:55 – 12:30  **Session 5: Climate change mitigation**

Identify priorities and policy options to address health in nationally determined contributions (*Dorota Jarosinska, WHO European Centre for Environment and Health, and Tara Neville, WHO headquarters*)

Climate bonus: achieving health gains through implementation of climate change policies: overview of the WHO carbon reduction benefits on health (CaRBonH) software (*Joe Spadaro, WHO consultant, and Pierpaolo Mudu, WHO European Centre for Environment and Health*)

Country interventions and discussion

12:30 – 13:00  **Session 6: Conclusions and next steps**

13:00  Closure of the meeting
THE WHO REGIONAL OFFICE FOR EUROPE

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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