mapping pathways to coherence on public health, intellectual property and trade
Figure 1.4: The distinct policy domains of public health

- Innovation and public research policies
- Human rights dimension
- International trade and domestic economic settings
- Public health framework
- IP law, management and administration
- Regulation: quality, safety and efficacy
- Access to medical technologies
Figure 1.5: Policy Intersections between distinct levels

Policy Intersections: from international instruments to individual projects

- Yields actual outcomes, in the forms of specific, proven and effective technologies for the benefit of public health
- Directs a firm’s or institution’s resources to specific research and development goals
- Creates specific incentives and provides more targeted funding and other resources for involved actors to pursue innovation programmes
- Provides the legal framework and foundation for more specific policies to promote innovation
- Guides or determines policy choices taken at national level, within globally defined policy space, with “flexibility” to accommodate national needs and priorities
- National policy strategies and funding programmes for innovation in medical technology
  - Overall policy settings are shaped by considerations of implications for specific domestic policy priorities
  - National innovation policy, legal and regulatory settings (e.g. IP laws and their interaction with other areas of regulation)
- International policy instruments and standards, international legal framework
  - International policy is formed by experiences and perspectives of policy-makers at national level
  - but, in turn, the policy framework is ideally shaped by a broad base of expertise and empirical data gleaned from practical experience with innovation.
- R&D programmes that respond to well-defined needs (linked to market, humanitarian improvement, health-related priorities)
- Specific research capacities and targets, and resource needs, guide institutional policies
- Domestic stakeholders engaged in the practice of innovation contribute to national (and, increasingly, international) policy innovation
innovation & access: the TRIPS dimension in a nutshell
Recognizing the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and technological objectives;

Article 7

Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.
Article 8

Principles

1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.

2. Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.
MINISTERIAL CONFERENCE
Fourth Session
Doha, 9 - 14 November 2001

DECLARATION ON THE TRIPS AGREEMENT AND PUBLIC HEALTH

Adopted on 14 November 2001

1. We recognize the gravity of the public health problems afflicting many developing and least-developed countries, especially those resulting from HIV/AIDS, tuberculosis, malaria and other epidemics.

2. We stress the need for the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) to be part of the wider national and international action to address these problems.

3. We recognize that intellectual property protection is important for the development of new medicines. We also recognize the concerns about its effects on prices.

4. We agree that the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all.

    In this connection, we reaffirm the right of WTO Members to use, to the full, the provisions in the TRIPS Agreement, which provide flexibility for this purpose.
what’s going on out there?

what does it amount to?

and what to do about it?
Analysis of patent issues & options informed by the evolving technology landscape – what treatments, vaccines, diagnostics and protection technologies are needed? Where and when? Local development, local production or importation?

what’s going on out there?
what can be patented, what is patented, where and where not, and who is patenting it?
patentability issues; transparency; analysis of patenting trends

what does it amount to?
what is the impact on technology access for different countries & regions
what implications for innovation & dissemination - & for emerging or unproven technologies

and what to do about it?
what options for government intervention
- management of IP, including public sector IP and pooling/sharing
to deliver the required benefits to those in need

Analysis of patent issues & options informed by the evolving technology landscape – what treatments, vaccines, diagnostics and protection technologies are needed? Where and when? Local development, local production or importation?
pre-grant questions

- what inventions should patent offices grant patents for,
- what claimed inventions should be refused patent protection

Article 27

Patentable Subject Matter

1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability:
   
   (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;

   (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either
post-grant questions
- what steps to monitor and to regulate the actual use of patent rights once granted
- what forms of intervention are required,
- how can and should the exclusive rights under a patent be exercised
  - by different actors (e.g. public vs private)?
  - subject to what limitations and exceptions?
  - in different jurisdictions (e.g. LDCs)
Market orientation vs. Exclusivity/leverage over technology

- **non-exclusive push or pull incentive mechanisms:** prize funds, advance purchase commitments
- **commercial patent pools:** based on pre-competitive technology platforms
- **Open source** or public health patent pool models with private sector downstream development pipeline: facilitated technology access upstream, strong commercial involvement in downstream development and dissemination
- **“Traditional” public sector research:** non-commercial orientation, public domain, no downstream leverage
- **“Conventional” private sector pipeline:** tight vertical integration, close exclusivity within one firm and affiliates
- **Conventional commercial collaboration** – cross-licensing, technology partnerships, joint ventures, firms as technology integrators, etc.
- **Public-private partnership** for neglected disease burdens with cross-subsidization from market product: diverse approaches to leveraging exclusive rights
Article 29

Conditions on Patent Applicants

1. Members shall require that an applicant for a patent shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art and may require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application.

2. Members may require an applicant for a patent to provide information concerning the applicant’s corresponding foreign applications and grants.

Article 30

Exceptions to Rights Conferred

Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.
Article 31

Other Use Without Authorization of the Right Holder

Where the law of a Member allows for other use\(^7\) of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected:

(b) Each Member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted.

(c) Each Member has the right to determine what constitutes a national emergency or other circumstances of extreme urgency, it being understood that public health crises, including those relating to HIV/AIDS, tuberculosis, malaria and other epidemics, can represent a national emergency or other circumstances of extreme urgency.
WTO IP rules amended to ease poor countries’ access to affordable medicines

An amendment to the agreement on intellectual property entered into force today (23 January) securing for developing countries a legal pathway to access affordable medicines under WTO rules.

Article 31bis

1. The obligations of an exporting Member under Article 31(f) shall not apply with respect to the grant by it of a compulsory licence to the extent necessary for the purposes of production of a pharmaceutical product(s) and its export to an eligible importing Member(s) in accordance with the terms set out in paragraph 2 of the Annex to this Agreement.

2. Where a compulsory licence is granted by an exporting Member under the system set out in this Article and the Annex to this Agreement, adequate remuneration pursuant to Article 31(h) shall be paid in that Member taking into account the economic value to the importing Member of the use that has been authorized in the exporting Member. Where a compulsory licence is granted for the same products in the eligible importing Member, the obligation of that Member under Article 31(h) shall not apply in respect of those products for which remuneration in accordance with the first sentence of this paragraph is paid in the exporting Member.
SECTION 8: CONTROL OF ANTI-COMPETITIVE PRACTICES
IN CONTRACTUAL LICENCES

Article 40

1. Members agree that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology.

2. Nothing in this Agreement shall prevent Members from specifying in their legislation licensing practices or conditions that may in particular cases constitute an abuse of intellectual property rights having an adverse effect on competition in the relevant market. As provided above, a Member may adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control such practices, which may include for example exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing, in the light of the relevant laws and regulations of that Member.
Realizing and delivering practical benefits
IP and COVID-19
WHO, WIPO, WTO Study
Promoting Access to Medical Technologies and Innovation

Geneva
21 October 2020

Hans Georg Bartels, Global Challenges Division
Overview

- Challenges posed in the context of the pandemic
- IP system and COVID-19
  - Licensing
  - Patent information and disclosure requirement ensure
  - IP legal frameworks – policy options and flexibilities
- WIPO COVID-19 response
Promoting Access to Medical Technologies and Innovation
Intersections between public health, intellectual property and trade

- Published: February 5, 2013
- First common publication of WHO, WIPO, WTO
- Comprehensive factual review of the global health, IP and trade debate
- Support the policy debate and capacity building
- Improve coherence in the respective approaches of WHO, WIPO, WTO
- Available in the six UN languages
- WHO, WIPO, WTO Distance learning course DL-701
Promoting Access to Medical Technologies and Innovation  Second edition
Intersections between public health, intellectual property and trade

- Published on July 29, 2020
- New technical and legal developments
- New topics and empirical data
- Improved structure
- For the time being, available in English only, translations in preparation
- WHO, WIPO, WTO Distance learning course DL-701 update in preparation
Updates include:

- **Universal Health Coverage** and **Sustainable Development Goals**
- Innovation trends in the pharmaceutical sector, considering *i. a.* WIPO Global Innovation Index 2019 – Creating Healthy Lives – The Future of Medical Innovation
- New technological developments, e.g. **AI**, **biotherapeutic products**
- Regulation of health technologies and medical devices and regulatory exclusivities
- Transparency across the value chain of health products, e.g. Registration of clinical trials and access to clinical trial data
- Antimicrobial resistance (AMR) in Chapters II, III and IV
- Health-systems-related determinants of access
- Access to health products in specific areas
Recent work in the WIPO Standing Committee on the Law of Patents (SCP) reflected in all chapters e.g. patents and health, exceptions and limitations

New material in the sections on copyright, e.g. text and data mining, orphan works; trademarks, e.g. non traditional marks

Protection of test data

Substandard and falsified medical products and on counterfeit products and IP enforcement

Competition law and policy in Chapters II and IV

Compulsory licensing and government use, new Table 4.1 (selected country experiences)

Free trade agreements and IP provisions in FTAs, updated Table 4.3
Responses to the pandemic span such a wide range of technical areas that nearly every section of this trilateral study is of relevance to the global response to COVID-19 (Trilateral Study, page 13).

The global IP system provides an incentive framework in which urgently needed innovation in relation to COVID-19 can be encouraged. It covers the stages from invention to supply of a product or service.

Focus / references:
- Licensing
- Patent information
- IP legal frameworks and implementation (flexibility)
Contract and licensing issues
Trilateral Study, pages 160-163, 166, 168, 177, 244-246

- Agreements: R&D collaborations / PDPs / MPP
- Institutional and personal relationships – interest perspectives
- Examples: MPP Licences, US NIH Forms and Model Agreements, GHIAA MAPGuide, ...
- Licensing issues
  - Example: WIPO GREEN Licensing Checklist
    - Part I: items for consideration for a license agreement
    - Part II: additional points for development collaborations
  - References & Resources
- Example: Employee’s inventions
  - EPO T 844/18 (CRISPR gene editing technology)
  - Revocation EP2771468: lack of novelty
  - Issue: priority claim
    One inventor in the US provisional application had not assigned rights to an applicant in the subsequent PCT application; one more applicant in the priority application
  - The missing signature
- Example: WIPO Re:Search Guiding Principles
Royalty-free for research, development and manufacture anywhere in the world

Royalty-free sales of resulting products in all LDCs

Consider in good faith the granting of a license for sales in all developing countries, taking into consideration the economic development of the countries and the need to facilitate access to disadvantaged populations

Licensees are allowed to retain ownership of new IP and are encouraged to license to third parties through WIPO Re:Search

No reach-through claims to new IP, materials or derivatives of materials generated by licensee, but licensor may ask for a non-assertion to such new IP
Some COVID-19 related examples

WIPO COVID-19 IP Policy Tracker, Trilateral Study, page 10

- WHO COVID-19 Technology Access Pool (C-TAP)
- Open COVID Pledge
- University of Kyoto COVID Pledge
- Abbvie commitment not to enforce LPV/r and Ritonavir patents (source MPP)
- Moderna statement on Intellectual Property Matters during the COVID-19 Pandemic
- Medtronic Corporation, Ventilation Design Specification
- Use of text and data mining and machine-learning technologies, and freely access and reuse literature (source Wellcome),
- Access to standards (source European Commission, Enterprise Singapore)
- ...
Patent information
Trilateral Study, page 74

- Patent information: 
  *i.a.* bibliographic data, description, list of claims, further documents, legal status data – a basis for IP and business strategies and decisions and input into R&D processes

- Legal status information
  WIPO Standard ST.27 Recommendation for the exchange of patent legal status data

- Currently: different formats, languages, inconsistent, untimely manner, differing national and regional patent laws and practices

- Availability of up-to-date, reliable, and understandable legal status information

- PATENTSCOPE: WIPO database for patent information
  - PCT international publications and more than 60 national and regional collections (September 2020)
  - Tools to overcome language barriers: Cross Lingual Information Retrieval (CLIR), WIPO Translate, WIPO Pearl: COVID-19 Terminology
  - WIPO Chemical Structure Search: names of chemical compounds, INN, structure from drawings
  - WIPO COVID-19 search facility of PATENTSCOPE

- WIPO Patent Register Portal
  Links to online patent registers and gazettes, legal status information, more than 200 sources
Patent information and COVID-19

WTO COVID-19: Measures regarding trade-related intellectual property rights, Trilateral Study, pages 9 and 74

- IP Offices Covid-19 related databases and initiatives:
  - EPO, SIPO, KIPO
  - PROSUR/PROSUL regional technical cooperation initiative: AR, BR, CL, CO, EC, PE, UR
  - USPTO COVID-19 Prioritized Examination Pilot Program for small and micro enterprises
  - BR INPI prioritizes examination of applications related to COVID-19

- MPP Medicines Patents and Licences database (MedsPaL)
  Patent information about medicines in trial to treat COVID-19
  remdesivir, lopinavir/ritonavir, favipiravir, ruxolitinib, tocilizumab, sarilumab, siltuximab

- Databases linking medicine data and patent data, e.g.:
  - Special Gazette for Medicaments published by the Mexican Industrial Property Institute
  - US FDA Orange Book
  - Health Canada Patent Register
  - RK Green List
WIPO SCP
health related patent information sources

SCP 29
Half-day conference on publicly accessible databases on patent information status and data, on medicines and vaccines
- MedsPal The Medicines Patents and Licenses Database
- Patent Information Initiative for Medicines Pat-INFORMED
- The Lens: An "Innovator's Perspective“
- Patent Register Portal
- WIPO Standard for Patent Legal Status Data Exchange (ST.27)

SCP 31
Initiatives on publicly accessible databases of patent status information concerning medicines and vaccines (update)
- Overview of the Orange Book and the Off Patent/Off Exclusivity List (United States Food and Drug Administration)
- Patent Information Initiative for Medicines Pat-INFORMED (WIPO and IFPMA)
- MedsPaL Update on Publicly Accessible Databases of Patent and Vaccines (MPP)
WIPO initiatives to improve access to information and knowledge

Access to Research for Development and Innovation (ARDI)
- Free access to scientific and technical journals for local, not-for-profit institutions in LDCs
- Low-cost access to industrial property offices in developing countries

Access to Specialized Patent Information (ASPI)
- Free or low-cost access to tools and services for retrieving and analysing patent data
- Addressed to patent offices and academic and research institutions in developing countries

International Cooperation for Patent Examination (ICE)
- Free expert assistance, training and access to collections of patent documents for developing countries

Technology and Innovation Support Centers (TISCs)
- Access to technology information and related services
- Help innovators in developing countries create, protect and manage IP rights

Digital Access Service (DAS)
- Secure exchange of priority and other similar documents among participating IP offices – the Service is intended for documents related to patents, utility models, industrial designs and trademarks

Centralized Access to Search and Examination (CASE)
- Secure sharing of patent search and examination documentation among patent offices.

Such initiatives are particularly important for patent offices in LMICs that are considering patent examination procedures, since they need access to prior art resources as they develop knowledge and practice, for example, on examination of pharmaceutical patent applications, and may want to see results obtained by other patent offices around the world.
Various options for a legislative process to accommodate national interests in accordance with the Agreement (WIPO Document CDIP/5/4 rev.)

- Patentability criteria
  e.g. patentable subject matter – material that exists in nature

- Research exception
  R&D on patented technologies does not infringe patent rights

- Research tools
  R&D with patented technology: biotechnology research tools

- Regulatory review exception
  a patented invention can be used without consent of the patent holder for the purposes of obtaining regulatory marketing approval

- Further development, and repurposing, of existing medicines
  - incremental innovation and medical indication claims
  - evergreening and life cycle management

- Compulsory and government use licenses (Table 4.1)
Implementation of patent related flexibilities in the multilateral legal framework

Committee on Development and Intellectual Property (CDIP)

http://www.wipo.int/edocs/mdocs/mdocs/en/cdip_5/cdip_5_4-main1.pdf
http://www.wipo.int/edocs/mdocs/mdocs/en/cdip_5/cdip_5_4-annex1.pdf
http://www.wipo.int/edocs/mdocs/mdocs/en/cdip_5/cdip_5_4-annex2.pdf

Certain Aspects of National/Regional Patent Laws


- Prior Art [PDF]
- Novelty [PDF]
- Inventive Step (Obviousness) [PDF]
- Grace Period [PDF]
- Sufficiency of Disclosure [PDF]
- Exclusions from Patentable Subject Matter [PDF]
- Exceptions and Limitations of the Rights [PDF]
WIPO SCP Resources

Patents and health related resources

- Patentability criteria
  SCP/22/3; SCP/22/4; SCP/28/4; SCP/29/4; SCP/30/4; SCP/30/4 ADD.

- Exclusions from patentable subject matter and exceptions and limitations to patent rights
  SCP/13/3; SCP/15/3, SCP/20/3, SCP/20/4, SCP/20/5, SCP/20/6; SCP/21/3; SCP/21/4 Rev.; SCP/21/5 Rev.; SCP/21/7; SCP/25/3; SCP/25/3 Add.; SCP/26/5; SCP/27/3; SCP/27/6; SCP/28/3; SCP/28/3 ADD; SCP/29/3; SCP/30/3

Questionnaire on Exceptions and Limitations to Patent Rights
Table and links to the replies received from member states and regional offices

- Patent information and transfer of technology
  SCP/13/5; SCP/21/9; SCP/21/10; SCP/28/5; SCP/29/6; SCP/29/6 CORR.; SCP/30/5; SCP/30/6; SCP/30/8; SCP/31/6; SCP/31/7; SCP/31/7 ADD.; SCP/31/7 CORR.

- Opposition and Administrative Revocation Mechanisms
  SCP/14/5; SCP717/9; SCP/18/4; SCP/31/4

- Patent System and medical innovation
  SCP/21/8; SCP/31/5
WIPO COVID-19 Response

- Business continuity in WIPO and IP offices around the world
  WIPO Online Dashboard to Monitor Operations / WIPO IP Policy Tracker
- Technology information:
  PATENTSCOPE COVID-19 search facility; WIPO Pearl: COVID-19 Terminology
- Unions:
  - Paris Union, P/A/56/1: Proposed guidance from the Paris Union Assembly on implementation of the Paris Convention relating to the right of priority in emergencies
  - Madrid Union, MM/A/54/1; Hague Union, H/A/40/1: E-mail as a required indication
  - PCT, PCT/WG/13/10: Strengthening PCT safeguards in case of general disruption
  - Madrid Working Group, MM/LD/WG/18/2REV.: Excuse in Delay in Meeting Time Limits
- Capacity building: using, assessing and adapting the IP system
  - Art. 4(v) of the Convention establishing WIPO
  - Agreement between WIPO and WTO of December 22, 1995
  - WHO, WIPO, WTO Trilateral Cooperation on Public Health, IP and Trade
- Engage with partners to provide IP expertise and legal and technical assistance:
  Agreement between the UN and the WIPO of December 17, 1974
- Inform the interested public about IP and global health
  Trilateral study and trilateral distance learning course
Thank you!

Hans Georg Bartels
Global Challenges Division
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http://www.wipo.int/globalchallenges/en/
Trade in Medical Goods and COVID-19: What has been done by Members?

Export restrictions and trade facilitating measures

Roy Santana
Market Access Division
World Trade Organization
In this presentation:

1. Trade in Medical Goods

2. What changed with COVID-19?

3. What has been done by Members
   a. Trade facilitating measures
   b. Export restrictions
Trade in Medical Goods (2019)

- **US$ 2 trillion trade** (imports & exports) of medical products, about 5% of world merchandise trade in 2019;

- **Top-10 exporters** account for 75% and **top-10 importers** account for 65% of that trade (concentration);

- 8 of the top-10 exporters **are also** among the top 10 importers (interdependency);

- Products critical for fighting **COVID-19** = US$ 597 billion, or 1.7% of total world merchandise trade (upper bound estimate)

Source: WTO Secretariat.
"No country is self-sufficient, no matter how powerful or advanced it may be. Trade allows for the efficient production and supply of basic goods and services, medical supplies and equipment, food and energy ... Keeping trade and investment flowing will be critical to keep shelves plentiful and prices affordable."

Roberto Azevêdo, WTO DG
Tariffs on medical goods

Average MFN applied duty of medical goods (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective and cleaning products</td>
<td>11.5%</td>
</tr>
<tr>
<td>Medical equipment</td>
<td>3.5%</td>
</tr>
<tr>
<td>Medical supplies</td>
<td>6.2%</td>
</tr>
<tr>
<td>Medicines</td>
<td>2.1%</td>
</tr>
<tr>
<td>All COVID-19 relevant products</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Example: tariffs on PPEs:
Number of Members per average applied tariff band

Source: WTO Secretariat.
What changed with COVID-19?
Trade in essential medical products suffered an unprecedented *triple whammy*

1. Demand shock
2. Supply shock
3. Disruption of global transport services (air, land, and sea)

The perfect storm for global supply chains?
Necessity is the mother of all inventions...
The Pandemic led to the implementation of unprecedented measures

1. Trade facilitating
2. Trade restrictive
Trade facilitating measures

Rationale:

• We do not produce all products necessary to fight the Pandemic → We must import as quickly and cheaply as possible

• International markets must remain open to minimize the chance of a bigger economic crisis on top of the health crisis; avoid a food crisis!

• International cooperation needed to overcome the crisis → G20 leaders statement (26.03.2020)
From red tape…

… to red carpet!
Trade facilitating measures

Examples (1)

• **Transparency:** ensure that trade operators know about the changes *(e.g. websites, publication, enquiry points, helpdesks, etc.)*
  
  (“How do we make sure that traders have all the information they need?”)

• **Reduction/elimination of tariffs, taxes and other charges**
  
  (“How do we reduce the cost of these essential goods?”)

• **Simplification/elimination of:**
  
  (“But is this really necessary?”)
  
  • import licensing procedures
  • origin requirements
  • labelling requirements
  • other requirements

**Source:** WTO Secretariat
Trade facilitating measures

Examples (2)

- **Simplification of import/export procedures**
  ("How do we cut the red tape?")
  - Priority lanes for essential products
  - Strengthened pre-arrival procedures
  - Paperless transactions/electronic submissions
  - Mandate digital procedures (to avoid physical contact)
  - Reduced physical inspections

- **Simplification of transit procedures**
  ("Let’s help the neighbour")

- **Establishment of separate health protocols**
  for staff dealing with import/export procedures, as well as for crews operating land, air, maritime means of transport.
  ("Trade must keep flowing!")

Source: WTO Secretariat
But what about the export restrictions?
Export prohibitions and restrictions: How many countries / territories?

It depends on the data source and how you count…

Using all available information:

76 WTO Members*

+ 10 non-Members

= 86 (or more?)

As of October 2020

Source: WTO Secretariat
Export prohibitions and restrictions: On which products?

- Face and eye protection: 77
- Protective garments: 53
- Gloves: 49
- Sanitizers/Disinfectants: 30
- Pharmaceuticals: 22
- Foodstuffs: 20
- Medical devices, incl....: 12
- Other medical supplies: 11
- COVID-19 Test kits: 7
- Toilet paper: 2
- Soap: 3

As of October 2020

Source: WTO Secretariat
Many export restrictions remain in place

- Export restrictions seem to have peaked end April 2020
- 70% were introduced for 3-months
- Since then, they have either been:
  - Withdrawn / expired
  - Extended
  - Retained (and some don’t have an end-date or deadline for review)

Note: Some Members enforced more than one export restriction.  
Source: WTO Secretariat based on information collected for the Trade Monitoring Report.
BUT: trade has continued playing a key role in delivering essential COVID-19 products

**INCREASE IN GLOBAL EXPORTS**
Global exports of critical products such as personal protective equipment (PPE), hand sanitizer and ventilators, which were earlier described as in severe shortage, totaled an estimated $187 billion in the first half of 2020, rising almost 30% to meet urgent demand.

**FACE MASKS**
World trade in face masks, which makes up a bulk of the PPE figure, rose by 87% to $71 billion. China was the biggest supplier of face masks, accounting for more than half of global exports.

**HAND SANITIZER**
Global exports of hand sanitizers totalled $16 billion. Germany was the largest exporter, with a 15% share of shipments.

**RESPIRATORS & VENTILATORS**
Global exports of respirators and ventilators increased 56% to $6 billion, with 10 economies accounting for more than four-fifths of these goods.

- 30% increase in the first half of 2020, in contrasts with a roughly 18% drop in overall merchandise trade;
- There is “evidence that trade was playing a useful role in easing the shortages of key medical supplies seen earlier in the COVID-19 pandemic.” - DDG Wolff

Source: WTO Secretariat.
Thank you!
Roy Santana

Additional resources:

• WTO - Report on worldwide trade in medical products: [Link](#)
• WTO - Report on export restrictions and COVID-19: [Link](#)
• WTO - How Members have used trade measures to expedite access to COVID-19 critical medical goods and services: [Link](#)
• WTO – Trade Monitoring Report, June & July 2020: [Link 1](#) & [Link 2](#)
• WHO, WIPO, WTO – Promoting Access to Medical Technologies and Innovation, 2nd edition, Chapter IV: [Link](#)
• WHO & WCO list of COVID-19 medical supplies: [Link](#)
An Integrated Health, Trade and Intellectual Property Approach to Address the COVID-19 Pandemic
21 October 2020

COVID-19, regulations and standards: What actions taken by WTO Members?

Devin McDaniels
Trade and Environment Division
World Trade Organization
Members using regulations and standards to address COVID-19

- Regulations and standards for:
  - Safety, quality, environment – Technical Barriers to Trade (TBT)
  - Food safety, animal and plant-carried diseases – Sanitary and Phytosanitary Measures (SPS)

- Majority (around 60%) of COVID-19 related notifications to WTO deal with regulations and standards
  - 150 notifications by 35 Members under TBT/SPS, since February 2020
Main topics addressed by notifications

1. streamlining certification procedures (mostly trade facilitating)
2. ensuring that medical goods are safe
3. making food available by relaxing technical regulations
4. addressing COVID-19 risks from international trade in live animals and animal products

• Half are reported as *temporary* and can be classified as *trade-facilitating*

To find out more: [https://www.wto.org/english/tratop_e/covid19_e/standards_report_e.pdf](https://www.wto.org/english/tratop_e/covid19_e/standards_report_e.pdf)
Which products?
COVID-19 related SPS/TBT notifications, all Members
Which Members?
COVID-19 related SPS/TBT notifications
Some examples: **streamlining certification**

**Thailand** introduced temporary facilitated registration approval for PPE (G/TBT/N/THA/570)
Canada temporarily loosened its bilingual labelling rules for PPE, hand sanitizers and disinfectants (G/TBT/N/CAN/609)

Relaxing labelling requirements

2. **Agency responsible:** Health Canada
   Name and address (including telephone and fax numbers, email and website addresses, if available) of agency or authority designated to handle comments regarding the notification shall be indicated if different from above:
   Canada’s Notification Authority and Enquiry Point
   Global Affairs Canada
   Technical Barriers and Regulations Division
   111 Sussex Drive, Ottawa, ON K1A 0G2
   Tel: (343)203-4273
   Fax: 613-943-0346
   Email: enquirypoint@international.gc.ca

3. **Notified under Article 2.9.2 [ ] , 2.10.1 [X], 5.6.2 [ ] , 5.7.1 [ ], other:**

4. **Products covered (HS or CCCN where applicable, otherwise national tariff heading. ICS numbers may be provided in addition, where applicable):** Hand sanitizers, disinfectants, personal protective equipment (such as masks and gowns) and swabs

5. **Title, number of pages and language(s) of the notified document:** Expedited access to disinfectants, hand sanitizers and personal protective equipment to help limit the spread of COVID-19, as well as swabs for testing (3 pages, in English and French)

6. **Description of content:** In light of the unprecedented demand and urgent need for products that can help limit the spread of COVID-19, Health Canada is facilitating access to products that may not fully meet current regulatory requirements, as an interim measure.

7. **Objective and rationale, including the nature of urgent problems where applicable:** Protection of human health or safety; Reducing trade barriers and facilitating trade
Electronic certificates and remote procedures

• Several members are accepting scanned copies or **electronic SPS certificates** (in place of original documents) (including Argentina, Australia, Chile, Colombia, Costa Rica, the European Union, Indonesia, Israel, Japan, Mexico, Peru, the Philippines, the Russian Federation, South Africa, Chinese Taipei, and the United Arab Emirates)

• Allowing for **remote conformity assessment procedures**, using virtual tools (Brazil, United Arab Emirates)
Recognizing certification by others: regulatory cooperation

Instead of conducting its own inspections of pharmaceuticals and medical device manufacturers, Brazil is accepting information from other regulators that participate in the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and the Medical Device Single Audit Program (MDSAP). (G/TBT/N/BRA/984)
COVID-19 vaccine – recognition of approval

• Regulatory issues come up at every stage of vaccine lifecycle

• Approval of vaccines: how to expedite while fulfilling safety, efficacy and quality criteria?

• Tools of the TBT Agreement can help (e.g. mutual recognition)
  • Recognizing approvals by others (Canada: WTO notification)
  • Sharing data, results of GMP inspections and other forms of regulatory cooperation
WHO/ Access to Medicines and Health Products Division/ Intellectual property

An integrated health, trade and intellectual property approach to address the COVID-19 pandemic

Geneva, 21 October 2020
Dr Tedros Adhanom Ghebreyesus, WHO Director-General:

"Barriers to access must be removed, including unaffordable prices, intellectual property barriers, unjustified tariffs and challenges in ensuring effective and efficient regulatory review."

"We have seen over the past months how countries have mobilized unprecedented investments in collaborative, not-for-profit research and development. The COVID-19 pandemic is showing what we can do when we come together to face a shared global health threat. That’s the kind of collaboration that can save lives and transform the health of billions of people globally,"
Trilateral Study: COVID-19 insert

“An integrated health, trade and IP approach to respond to the COVID-19 pandemic”

- Review of the numerous challenges posed by the outbreak in relation to the integrated health, trade and IP policy frameworks set out in this study.
- It provides cross-references to the relevant sections of the main text.

CONTENT:

✓ Policy challenges posed by the pandemic
✓ Meeting the demand for health technologies and medical services
✓ Preserving effective international trade
✓ Intellectual property and the pandemic
✓ International initiatives to support R&D of, and equitable access to, COVID-19 technologies
Relevant for health:

- **Patent status information**: The European Patent Office (EPO) and a number of national patent authorities have databases of COVID-19-related patents.

- **MedsPaL**: WHO requested the expansion of the database to cover COVID-19 potential health products (12 potential therapeutics and biologics).

- Civil society organizations have submitted **oppositions/revocations** against patents on technologies that could be potentially used in a new COVID-19 medicines.

- **TRIPS flexibilities**: Some countries adapted their legislations to make use of the public health safeguards: Canada, Hungary, Germany.

- **Government use licences**: Israel, a government-use licence has been issued for the import of generic lopinavir/ritonavir in COVID-19 treatment.

- **Voluntary licences**: MPP expanded temporarily its mandate to cover COVID-19 medicines, diagnostics and vaccines. UN Tech Bank/ Technology Access Partnership (TAP) (WHO-UNDP-UNCTAD) was established to support developing countries to scale up local production of critical health technologies.

- **Non-enforcement commitments**
COVID-19 insert: International initiatives to support R&D of, and equitable access to, COVID-19 technologies

➢ The WHO Strategic Preparedness and Response Plan for 2019 includes actions to coordinate international R&D efforts.

➢ Blueprint Global Coordination Mechanism and the convening of expert consultations that have resulted in a Coordinated Global Research Roadmap

➢ WHO Solidarity Clinical Trial

➢ ACT-Accelerator

➢ Solidarity Call to Action –WHO, Costa Rica and 40 Countries

➢ WHO COVID-19 Technology Acess Pool (C-TAP)
Making the response to COVID-19 a public common good

Solidarity Call to Action

To realize equitable global access to COVID-19 health technologies through pooling of knowledge, intellectual property and data

The following WHO Member States have informed WHO and/or the Government of Costa Rica that they are joining the Solidarity Call to Action

Argentina, Bangladesh, Barbados, Belgium, Belize, Bhutan, Brazil, Chile, Dominican Republic, Ecuador, Egypt, El Salvador, Honduras, Indonesia, Kenya, Lebanon, Luxembourg, Malaysia, Maldives, Mexico, Mongolia, Mozambique, Norway, Oman, Pakistan, Palau, Panama, Paraguay, Peru, Portugal, Saint Vincent and Grenadines, South Africa, Sri Lanka, Sudan, The Netherlands, Timor-Leste, Turkmenistan, Uruguay, Zimbabwe
Solidarity Call to Action

“Our proposal relies on solidarity. It’s a Solidarity Call to Action to Member States, to academia, to companies, research institutions and cooperation agencies, based on global social responsibility, on a voluntary basis, promoting more global nonexclusive voluntary licensing.”

President Carlos Alvarado Quesada, Costa Rica

“We need to unleash the full power of science, without caveats or restrictions, to deliver innovations that are scalable, usable, and benefit everyone, everywhere, at the same time.”

WHO Director-General Dr Tedros Adhanom Ghebreyesus
Live: Launch of the COVID-19 Technology Access Pool

8,239 views • Streamed live on May 29, 2020

World Health Organization (WHO) ©
578K subscribers

Source: https://www.youtube.com/watch?v=RLJRMIIU1YY&t=4512s
Solidarity Call to Action

Governments and other research and development funders

• Take action to promote innovation, remove barriers, and facilitate open sharing of knowledge, intellectual property and data necessary for COVID-19 detection, prevention, treatment and response, including through national legal and policy measures, and international collaboration on regulatory practices, to ensure availability, affordability and assured-quality of the concerned products

• Promote that all COVID-19 publicly-funded and donor-funded research outcomes are affordable, available and accessible to all on a global scale through appropriate provisions in funding agreements, and include specific provisions regarding accessibility to and affordability of resulting COVID-19 related health products through global non-exclusive voluntary licensing, transparency and, when necessary, other commitments to expand access by sharing, for example, other intellectual property rights, know-how and data
Solidarity Call to Action

Governments and other research and development funders

• Encourage that all research outcomes are published under open licenses that allow access free of charge, use, adaptation and redistribution by others with no or limited restrictions, including through initiatives such as the FAIR Guiding Principles for scientific data management and stewardship.

• Encourage open and collaborative approaches in pre-competitive drug discovery and work together with international organizations towards equitable distribution and access to products needed for COVID-19.

• Ensure that research results are registered and published in line with WHO’s Joint statement on public disclosure of results from clinical trials.
Solidarity Call to Action

Holders of knowledge, intellectual property or data to existing or new therapeutics, diagnostics and vaccines

• Voluntarily license such rights on a non-exclusive and global basis to the Unitaid-established and supported Medicines Patent Pool and/or through other public health research and development mechanisms, consortia or initiatives that facilitate global and transparent access; and/or voluntary non-enforcement of intellectual property rights, as appropriate, during the COVID-19 pandemic, to facilitate the widespread production, distribution, sale and use of such health technologies throughout the world;

• Facilitate equitable, affordable and timely access to their products for all countries

• Share voluntarily the relevant knowledge, intellectual property and data to enable widespread and worldwide production, distribution and use of such technologies and necessary raw materials through mechanisms such as the Technology Access Partnership TAP hosted by the UN Technology Bank or the Open COVID Pledge Initiative
Solidarity Call to Action

Researchers

• Share relevant SARS-CoV-2 genetic sequence information and data through publicly accessible databases such as the Global Initiative on Sharing All Influenza Data (GISAID), recognizing the need for fair and equitable access to health products that are developed using genetic sequence information
Solidarity Call to Action

All stakeholders

• Place, in the WHO Global Observatory on Health Research and Development, information and analyses on COVID-19 research and development activities, information and analyses to build on existing data and reports from a wide range of data sources, and gather new information, where needed and feasible, with the aim of enabling decisions on priorities in research and development

• Place, in the WHO COVID-19 Technology Access Pool or its implementing partner platforms, references to shared information and/or commitments to all relevant technologies, knowledge, intellectual property, and data on terms that facilitate their use in research, development and innovation and manufacturing and that would permit effective technology transfer and early access to key technologies for the detection, prevention, treatment and response of COVID-19
Solidarity Call to Action

Patients and communities, inter-governmental, non-governmental and civil society organizations

- Advocate for, facilitate and actively engage in the implementation of this Solidarity Call to Action
COVID-19 technology access pool

Implementing partners

Take action now

Contact details

First name *

Last name *

Type of entity *
- Select an entity type -

Name of entity

Position *

Any questions can be directed to:

CallToAction@who.int

Complementary initiatives: ACT-Accelerator and C-TAP

- Thus ACT-A is principally about funding the development of the new tools necessary to fight COVID-19 with associated activities seeking to promote equitable access to these new tools.

- C-TAP has the overall objective of promoting open science in order to accelerate product development by pooling intellectual property, data, regulatory dossiers, and manufacturing processes and other kinds of 'know-how'.

- C-TAP aims to facilitate more affordable access to new tools, through non-exclusive and unrestricted licensing accompanied by enhanced arrangements for technology transfer.

- Thus ACT-A and C-TAP should be regarded as complementary initiatives
COVID-19 technology access pool

Implementing partners

Where we are...

- Publishing a C-TAP paper to define and further explain the initiative, the structure, the relationship with other WHO initiatives and the implementing partners.
- Steering Committee is already in place to support C-TAP Secretariat: UN agencies, Implementing partners.
- Private sector engagement strategy
- Co-sponsors are also discussing how to offer incentives to encourage private sector to participate
- Information session for Member States in November
WHO works in a range of measures to promote innovation of and access to health products

- Voluntary mechanisms: The *WHO COVID19 Technology Access Pool (C-TAP)* is one alternative

- Use of public health flexibilities: Voluntary mechanisms go in parallel with other measures available in the TRIPS Agreement and highlighted by the Doha Declaration to promote public health

- Upon request of Countries and in collaboration with other agencies WHO provides technical assistance to governments to effectively use this mechanisms

- WHO is closely following different initiatives from Member States like the long controversial discussion during the TRIPS Council last week on a waiver on the implementation of some parts of the TRIPS Agreement during the pandemic
Thank you!
Erika Duenas
duenase@who.int
Roger Kampf  
WTO Secretariat

WTO Technical Workshop

Organized by the WTO Secretariat
with the cooperation of
the WHO and WIPO Secretariats

An Integrated Health, Trade and Intellectual Property Approach to Address the COVID-19 Pandemic

21 October 2020
12:00 to 15:00 (Geneva time)
Response to Pandemic Requires an Integrated Health, Trade and IP Approach
WHO-WIPO-WTO Study on Access to Medical Technologies and Innovation (2\textsuperscript{nd} edition, 2020)

Full publication and sections available at: https://www.wto.org/trilateralstudy2020
<table>
<thead>
<tr>
<th>Survey Questions</th>
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<tbody>
<tr>
<td>1. What are the most significant challenges your government is facing in dealing with COVID-19?</td>
</tr>
<tr>
<td>2. Does your government have a national strategy or action plan for managing public health situations such as COVID-19?</td>
</tr>
<tr>
<td>3. Please share your suggestions regarding specific topics, needs and priorities for follow-up capacity building activities</td>
</tr>
<tr>
<td>4. Please share your suggestions regarding any other capacity building materials or resources</td>
</tr>
<tr>
<td>5. To whom should capacity building activities be addressed?</td>
</tr>
<tr>
<td>6. At which level do you think capacity building activities would be the most useful (national, (sub-)regional or global)?</td>
</tr>
</tbody>
</table>
Practical Experiences & Lessons Learned

Work at the WTO

Roger Kampf
WTO Secretariat
Voluntary Collaboration: Selected examples (1)

• Sharing IP, clinical trial data and know-how
  • Can expedite R&D cooperation, development, manufacturing and distribution of relevant health technologies
  • Examples:
    • Permissive licences to allow open access to design files and software for ventilators and transfer of related know-how (Medtronic)
    • Non-enforcement/waiver of patent rights (AbbVie, Moderna)
    • Time-limited free global licences to use IPRs for the purpose of ending and mitigating the pandemic (COVID-19 Pledge)
    • Sharing of IP to develop and supply vaccine on a no-profit basis (Oxford University/AstraZeneca)
    • Initiatives to transfer technology and know-how (COVID-19 Clinical Research Coalition)
    • Free access to COVID-19 publications protected by copyright (publishers)
    • Free availability of standards protected by copyright (EU, ASTM)
Voluntary Collaboration: Selected examples (2)

• Open source licensing and open access initiatives
  • Practice of licensing IPRs, often free of charge, for use by third parties in commercial applications for a specific purpose, such as using, modifying or sharing the source code, blueprint or design, typically on the condition that any improvements are licensed on the same terms
  • Examples:
    • Open source software for contact tracing technology (Singapore)
    • Open source hardware to resolve supply chain weaknesses
    • Open access to research results (Medicines for Malaria Venture, COVID Box)

• Technology pools
  • Agreement between at least two IP right holders to group their rights and to license the rights to use these rights to each other and to third parties, subject to certain conditions
  • Examples:
    • Medicines Patent Pool
    • Technology access pool (C-TAP, WHO)
Government Measures: Ensuring Transparency

• Easy access to patent information for COVID-19 related inventions to facilitate R&D and dissemination of innovations, as well as their licensing and procurement

• Examples:
  • China: freely accessible database for COVID-19 related patents
  • Chile: special editions of reports on public domain technologies focused on PPE
  • Ecuador: « Infosite on Technologies » used for prevention/treatment of COVID-19
  • Republic of Korea: KIPO makes available patent information, including patent analysis and trend reports
  • Chinese Taipei: search facilities in Global Patent Search System; release of patent information relating to mask-producing facilities and technologies around the world; release of drug approval status and patent information of 52 potential medicines
  • Canada: category for COVID-19 related technologies added to ExploreIP marketplace, a searchable database to help businesses find and obtain licenses for public sector patents held by government, academia, or other public sector institutions
  • US: Patents 4 Partnerships website lists patents and applications that are available for licensing
Government Measures: Administrative Options

• Art.62 TRIPS leaves room to manoeuvre in developing an approach to IPR acquisition and maintenance procedures tailored to specific needs and circumstances

• Patent examination or application procedures
  • Examples:
    • Accelerated patent examination procedures (Brazil, Canada, Russian Federation, US)

• Trademark examination or application procedures
  • Examples:
    • Guidance to increase the monitoring or investigation of COVID-19 related TM applications (China)
    • Prioritized Examination Program (US)

• Ease of procedural requirements, deadlines or fees
Government Measures: Compulsory or Government Use Licences

• Ease of procedures to grant compulsory or government use licences
  • Examples:
    • Canada: Patent Act amendment (Bill C-13) empowers Commissioner of Patents, on application by Minister of Health, to authorize the Government or a third party to supply a patented invention to the extent necessary to respond to a public health emergency of national concern.
    • Germany: amendment to German Act on the Prevention and Contrl of Infectious Diseases in Humans authorizes Ministry of Health to issue use orders in an epidemic situation of national importance
    • Hungary: Decree 212/2020 created a public health compulsory licence for domestic exploitation (terminated)

• Grant of government use licence
  • Example:
    • Israel: government use licence to import generic lapinovir/ritonavir from India
WTO COVID-19 Webpage: Transparency & Capacity Building

➢ Regularly updated list of measures regarding trade-related aspects of IPRs

➢ Information notes, in particular:
  • The TRIPS Agreement and COVID-19 (Oct. 2020)
  • How WTO Members have used trade measures to expedite access to COVID-19 critical medical goods and services (July 2020)

➢ Other resources:
  • List of Members’ proposals
  • List of Members’ notifications
  • Enquiry points

https://www.wto.org/english/tratop_e/covid19_e/covid19_e.htm
COVID-19 Relevant Work in the TRIPS Council

- Exchange of information about measures taken by Members
  - Based on list of verified IP measures on WTO COVID-19 webpage

- TRIPS Council, 30 July 2020
  - IP and the Public Interest: Beyond Access to Medicines and Medical Technologies Towards a More Holistic Approach to TRIPS Flexibilities (Communication from South Africa, IP/C/W/666)

- TRIPS Council, 15-16 October 2020
  - Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of COVID-19 (Communication from India, South Africa, co-sponsored by Eswatini, Kenya, IP/C/W/669)
Global, coordinated action is required to deal with the extraordinary challenges the pandemic poses to people’s health as well as their livelihoods. Keeping trade in health technologies as open and predictable as possible is of vital interest. WHO and WTO are working together to support efforts to ensure the normal cross-border flow of vital medical supplies and other goods and services, promoting them where possible, and to resolve unnecessary disruptions to global supply chains (...).

WTO rules provide governments with the flexibilities they may need to address essential medical supply shortages and/or public health challenges. But any measure taken to promote public health that restricts trade should be “targeted, proportionate, transparent and temporary” (...).

We call on our Members to continue to share information about their measures with WHO and WTO, in line with the established transparency mechanisms, which are now especially valuable in supporting a coordinated response.

(...) we call upon governments to implement policy measures that can further facilitate their research and development, and to promote their rapid dissemination within countries and across borders so as to ensure equitable access to those technologies. Such initiatives include targeted investment, ensuring open access to clinical test results, the sharing of relevant intellectual property rights, increasing manufacturing capacity, open and transparent procurement regimes, the elimination of tariffs on relevant health technologies, and trade facilitation measures to reduce costs and delays.

https://www.wto.org/english/news_e/news20_e/igo_14apr20_e.htm
Some of the most significant challenges for your government:

- Supply chain management
- Lack of health care facilities, medical equipments, affordability
- Absence of effective implementation of CL rules
- Public education / awareness raising
- Economic recovery
## Input Received Ahead of the Workshop (2)

### Survey Questions

<table>
<thead>
<tr>
<th>Suggestions regarding specific topics, needs and priorities for follow-up capacity building activities</th>
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<tbody>
<tr>
<td>• Explaining the process of developing/registering new medicines and the role of IPRs in this process</td>
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<tr>
<td>• Understanding TRIPS and relevant flexibilities, and their implementation in domestic law</td>
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<tr>
<td>• Sharing of IPRs, in particular, in context of WHO initiatives to develop COVID-19 treatment/vaccines</td>
</tr>
<tr>
<td>• Abolishing patents; declaring priority of human right to health over IPRs</td>
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<tr>
<td>• Securing equitable access to affordable treatments and vaccines as global public goods</td>
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<tr>
<td>• Containing the pandemic</td>
</tr>
<tr>
<td>• Managing supply chain (e.g. cold chain) to timely deliver critical goods and services and financing</td>
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<tr>
<td>• Reducing trade barriers to secure access to essential medicines and vaccines</td>
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<tr>
<td>• Elaborating generic drug production strategy</td>
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<tr>
<td>• Facilitating technology transfer to foster vaccine production, including in LDCs</td>
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<tr>
<td>• Supporting digitalisation (e.g. health sector, IP offices)</td>
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<tr>
<td>• Ensuring proper coordination of government departments through joint training activities</td>
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<tr>
<td>• Sharing of experiences and practices to deal with the pandemic, including country-specific examples, and exploring possible areas of collaboration</td>
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</tbody>
</table>

### Participants’ Feedback

<table>
<thead>
<tr>
<th>Suggestions regarding any other capacity building materials or resources</th>
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<tbody>
<tr>
<td>• Best practices, manuals, model regulations; illustrative guide on all relevant TRIPS issues</td>
</tr>
<tr>
<td>• Guidance regarding promotion of innovation/technology transfer to encourage local production</td>
</tr>
<tr>
<td>• Strong WHO/WTO/WIPO cooperation to promote effective synergies and to develop capacity building materials, leveraging and drawing upon each organization’s technical expertise, including work towards an information clearinghouse on access to medicines/public health measures</td>
</tr>
</tbody>
</table>