

Appendix 1. Important milestones in sanitary/phytosanitary measures affecting trade (Harrison [1], Howard-Jones [2], FAO [3], FAO/WHO [4]).

<p>15th Century</p> <ul style="list-style-type: none"> • Quarantines and outright prohibition from infected places common; applied to both goods and people • Poorly coordinated both within and between countries; <i>ad hoc</i> implementation • Often used for reasons other than health, including political/military rationales
<p>16th to 18th Century</p> <ul style="list-style-type: none"> • 1683 - France introduces first statute on quarantine • 1710 - UK introduces quarantine statute • Bills of health introduced (= sanitary certification for people and goods and origin) issued by port authorities • Fraudulent certification an issue, including "bad bill of health" issued by 3rd country port authorities (delays competitors' cargo); reliability uncertain
<p>1815-1881</p> <ul style="list-style-type: none"> • Early 1800's - Yellow Fever introduced into Mediterranean and Plague in Corfu (1816) affirms contagious nature of many diseases • 1815 - Congress of Vienna - end of common use of sanitary cordons to disguise military expansionism and professional diplomacy takes hold • 1830 - 1848 - European Russia Cholera outbreak - regression to quarantine by many states, although strictness was linked to commercial interests domestically • 1834 - Publication of Dupeyron report (Secretary to the Supreme Council of Health in France) on Mediterranean Quarantine rules with recommendations on standardization of system • 1838 - Establishment of Constantinople Council of Health created linkages between Ottoman empire and Europe on trade and quarantine • 1851 - First International Sanitary Conference - Plague still seen as most important; cholera discussed • 1866 – 3rd International Sanitary Conference in Istanbul • 1881 <ul style="list-style-type: none"> • USA hosts 5th international Sanitary Conference in Washington DC. • First multi-lateral agreement for plant protection (control of grape phylloxera; North American aphid)
<ul style="list-style-type: none"> • 1929 - International Convention for the Protection of Plants • 1938 - 14th and final International Sanitary Conference dissolved the "Conseil Sanitaire, Maritime, et Quarantaine d'Egypte" created in 1892 at the 7th ISC. The International community recognized that Egypt could manage its own health systems, including incursions of disease. <p>1945 – Founding of the Food and Agriculture Organization (FAO) of the United Nations 1947 – International Standards Organization (ISO) founded 1948 – World Health Organization (WHO) founded</p>
<p>1952 - Founding of IPPC (replaces all other Plant Protection Agreements)</p> <ul style="list-style-type: none"> • 1954 – Codex Alimentarius Europaeus
<p>1961 - Codex Alimentarius Commission (CAC) established at 11th FAO conference</p> <ul style="list-style-type: none"> • 1963 – Inaugural meeting of CAC • 1992 - IPPC Secretariat established in Rome at FAO

1995 - SPS agreement comes into force
• 1995 – CAC, IPPC as part of international standards under SPS
• 1998 – OIE incorporated as international standard under SPS

References

1. Harrison M Disease, diplomacy and international commerce: the origins of international sanitary regulation in the nineteenth century. *J Global Hist* 2006;1:197–217.
2. Howard-Jones, N. The scientific background of the International Sanitary Conferences 1851 - 1938. *In: WHO (ed.) History of International Public Health, No. 1.* Geneva, Switzerland: World Health Organization. 1975.
3. FAO. History of the IPPC [Online]. Rome, Italy: FAO. 2019.
4. FAO/WHO. *Codexalimentarius, About Codex - History: Timeline* [Online]. Rome: FAO/WHO.2022.

Appendix 2. Examples of HIE questionnaires/frameworks.

Health Discipline	Source organization
Animal Health	<ol style="list-style-type: none"> 1. Japan - Questions on veterinary service (Questionnaire A), Animal Health Division, Food Safety and Consumer Affairs Bureau (MAFF), (1) 2. Japan - Regarding the Standard Procedure for Approval for Import of Designated Items to Be Quarantined, Animal Health Division, Food Safety and Consumer Affairs Bureau (MAFF), (2) 3. World Organization for Animal Health Performance of Veterinary Services (PVS) Tool (3) 4. World Organization for Animal Health, Terrestrial Animal Health Code, Chapter 1.8. Application for Official Recognition by the OIE of Risk Status for Bovine Spongiform Encephalopathy (4) 5. World Organization for Animal Health, Terrestrial Animal Health Code, Chapter 3.2. Quality of Veterinary Services (5)
Food Safety	<ol style="list-style-type: none"> 6. Performance, Vision and Strategy (PVS) for National Food Safety Services (6) 7. USDA-FSIS Equivalence (7) 8. USDA-FSIS Self Reporting Tool (SRT; v2019-001) (8)
Plant/Environmental Health	<ol style="list-style-type: none"> 9. Standard Evaluation Procedure under Plant Quarantine for the Request for Lifting a Ban on Plant Imports, Japan, Ministry of Agriculture, Fisheries and Forestry, (9) 10. National Capacity Self-Assessment - The NCSA Resource Kit United Nations Environment Programme (UNEP) 11. International Plant Protection Convention - Equivalence document Annex B and Annex C Questionnaire (10) 12. Performance, Vision and Strategy (PVS) for National Plant Protection Organizations Inter-American Institute for Cooperation on Agriculture (11)
Overarching disciplines	<ol style="list-style-type: none"> 13. Food and Agriculture Organization (FAO) Biosecurity Toolkit - Annexes (12) 14. IHR (2005) Monitoring and Evaluation Framework: Joint External Evaluation Tool (13)

References

1. Animal Health Division And Consumer Affairs Bureau (MAFF) Questions on veterinary service (Questionnaire A). *MAFF*, Japan 2015 (update).

2. MAFF Regarding the Standard Procedure for Approval for Import of Designated Items to Be Quarantined. Animal Health Division, Food Safety and Consumer Affairs Bureau, MAFF. 2015.
3. OIE PVS Tool: OIE Tool For The Evaluation Of Performance Of Veterinary Services, *World Organization for Animal Health (WOAH)*, 7th edition, Paris: WOAH 2019.
4. WOAH Chapter 1.8. Application for Official Recognition by the OIE of Risk Status for Bovine Spongiform Encephalopathy. Paris: World Organization for Animal Health. *Terrestrial Animal Health Code*. Paris: WOAH. 2018.
5. WOAH Chapter 3.2. Quality of Veterinary Services. *Terrestrial Animal Health Code*. Paris: WOAH. 2021.
6. IICA Performance, Vision and Strategy (PVS) for National Food Safety Services. San Jose, Costa Rica: Inter-American Institute for Cooperation on Agriculture (IICA). 2008.
7. USDA-FSIS. *Equivalence* [Online]. Washington, DC: United States Department of Agriculture – Food Safety Inspection Service. 2022.
8. USDA-FSIS. Self-Reporting Tool (SRT; v2019-001). *USDA-FSIS*. Washington, DC: USDA FSIS. 2019.
9. Plant Health (MAFF) Standard Evaluation Procedure under Plant Quarantine for the Request for Lifting a Ban on Plant Imports. MAFF, Japan. 1999.
10. Quinlan M. Equivalence Implementation Review and Support System (IRSS) A Review of the Application of Equivalence Between Phytosanitary Measures Used to Manage Pest Risk in Trade. *In: (IRSS)*, IPPC Secretariat under the work programme of the Implementation Review and Support System (IRSS) (ed.). Rome, Italy: FAO IPPC 2016.

11. IICA Performance, Vision and Strategy (PVS) for National Plant Protection Organizations Inter-American Institute for Cooperation on Agriculture Technical capacity Institutional. *San Jose, Costa Rica*. IICA. 2015.
12. FAO OIE WHO Taking a MultiSectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries. 2019.
13. WHO 2016. IHR Monitoring And Evaluation Framework: Joint External Evaluation Tool. Geneva, Switzerland: World Health Organization. 2005.

Appendix 3. Generic Standard Operating Procedure for Health Infrastructure

Evaluations. (Proposed One Health steps in solid fill)

