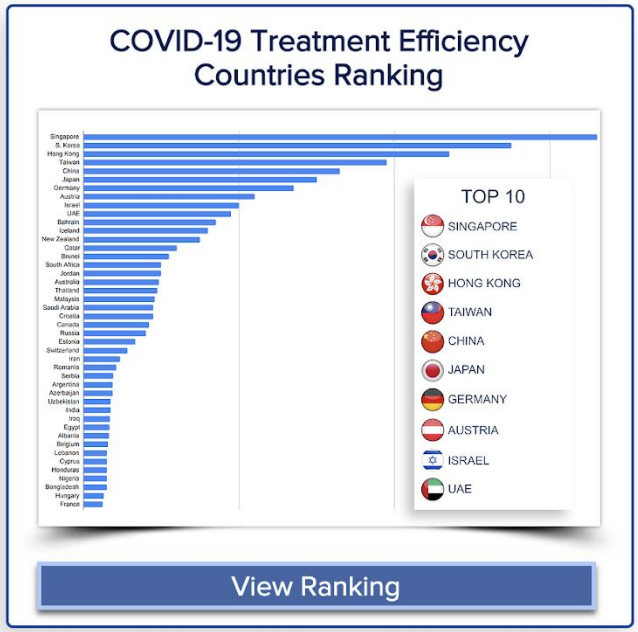
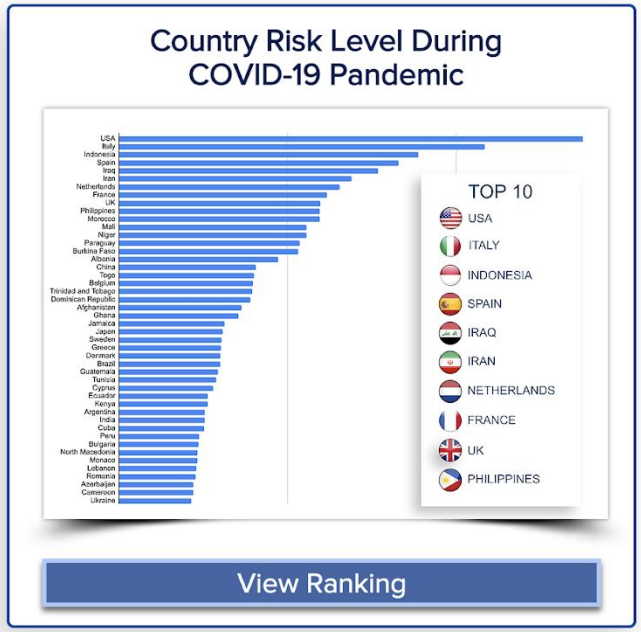
COVID-19 Ranking Framework Methodology

COVID-19 Country Safety, Risk and Treatment Efficiency Ranking

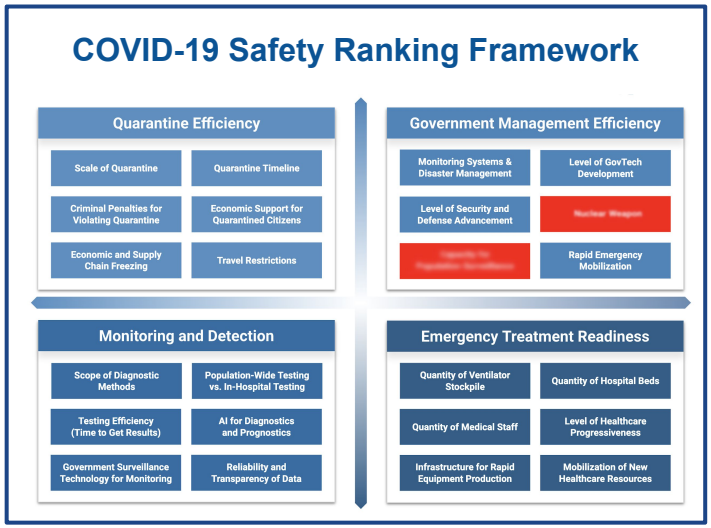
COVID-19 Country Safety, Treatment Efficiency and Risk Ranking: Analytical Framework and Methodology

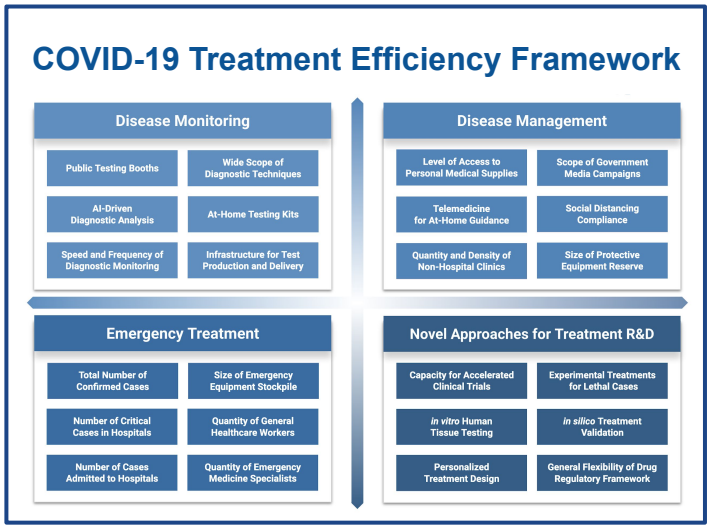


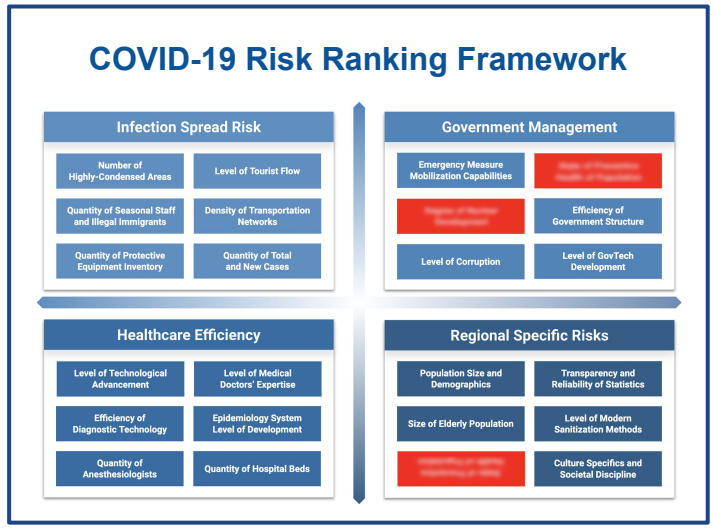


- Deep Knowledge Group's COVID-19 Safety, Treatment Efficiency and Risk Ranking Analytical Frameworks utilize raw data from a number of publicly-available sources including World Health Organization, Johns Hopkins University, CDC, Worldometers and others, as well as consultations with specific experts, and feeds this data into its proprietary Big Data Analytical Frameworks in order to derive a cumulative rank of countries in terms of safety, therapy efficiency and risk.
- The current global COVID-19 pandemic is a complex system involving more than typical disease tracking and management techniques, affected not just by biology but by the behaviour of individual humans, and the larger-scale actions of companies, institutions and governments. It is heavily influenced by the current healthcare, medical, economic, governance and geopolitical actions, behaviours and situations of entire nations.
- It has always been Deep Knowledge Group's long-term mission to pursue its strategic agenda in a dual non-profit and for-profit manner, aiming to achieve positive impact in the support of progressive technologies for the benefit of humanity. It is for this reason that the decision was made to conduct the majority of the group's COVID-19 analytics in an open-source manner, free of charge, to provide the public in general and authorized organizations in particular with fact-based and unbiased information. However, the group also remains open to disclosing its proprietary metrics and analytical techniques to relevant organizations, and to conducting country-specific and topic-specific analytics and forecasting for responsible governmental bodies and departments.

COVID-19 Safety, Risk and Treatment Efficiency Frameworks







- Deep Knowledge Group's COVID-19 related ranking frameworks utilize 72 metrics in total (grouped into 12 quadrants under each specific ranking framework) in order to provide valuable insights for citizens and governments, and to rank various countries in terms of their safety and risk, not just as it pertains to COVID-19, but also in terms of negative potential societal, economic and geopolitical outcomes of the pandemic.
- The "COVID-19 Safety Ranking Framework" ranks countries according to general safety and long term stability, and gives an idea of which countries' citizens have the lowest likelihoods of being infected. The lowest chance of COVID-19 mortality, and the highest likelihoods of recovery and positive health outcomes.
- The "COVID-19 Risk Ranking Framework" ranks countries according to their broader levels of risk, not just in suffering negative health outcomes during the coronavirus pandemic (high rates of infection spread, high mortality rates, etc.), but also in terms of possible negative societal, economic and geopolitical outcomes that could result as well.
- The "COVID-19 Treatment Efficiency Ranking Framework" ranks countries according to the sophistication and real and predicted effectiveness of their efforts to monitor COVID-19, reduce infection spread, and treat both critical and non-critical patients, as well as their capacities to rapidly develop, test, validate and deploy experimental vaccines and treatments for coronavirus.
- Certain metrics used for advanced and qualitative assessment were formulated by Deep Knowledge Group analysts in coordination with specific experts and consultants using proprietary sources and techniques. Therefore, such rankings may be adjusted over time depending on the corresponding underlying information and in coordination with ongoing enhancements to our underlying analytical methodologies.

COVID-19 Safety Ranking Framework

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Quarantine Efficiency

- Scale of Quarantine
- Quarantine Timeline
- Criminal Penalties for Violating Quarantine
- Economic Support for Quarantined Citizens
- Economic and Supply Chain Freezing
- Travel Restrictions

Government Management Efficiency

- Monitoring Systems & Disaster Management
- Level of GovTech Development
- Level of Security and Defense Advancement
- [redacted]
- [redacted]
- Rapid Emergency Mobilization

Monitoring and Detection

- Scope of Diagnostic Methods
- Population-Wide Testing vs. In-Hospital Testing
- Testing Efficiency (Time to Get Results)
- AI for Diagnostics and Prognostics
- Government Surveillance Technology for Monitoring
- Reliability and Transparency of Data

Emergency Treatment Readiness

- Quantity of Ventilator Stockpile
- Quantity of Hospital Beds
- Quantity of Medical Staff
- Level of Healthcare Progressiveness
- Infrastructure for Rapid Equipment Production
- Mobilization of New Healthcare Resources

By Deep Knowledge Group
Source: www.dkv.global/covid

Note: Proprietary metrics marked with red are developed by Deep Knowledge Group specifically for the COVID-19 Safety Ranking Framework and are for internal use only.

COVID-19 Risk Ranking Framework

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Infection Spread Risk

- Number of Highly-Condensed Areas
- Level of Tourist Flow
- Quantity of Seasonal Staff and Illegal Immigrants
- Density of Transportation Networks
- Quantity of Protective Equipment Inventory
- Quantity of Total and New Cases

Government Management

- Emergency Measure Mobilization Capabilities
- [redacted]
- [redacted]
- Efficiency of Government Structure
- Level of Corruption
- Level of GovTech Development

Healthcare Efficiency

- Level of Technological Advancement
- Level of Medical Doctors' Expertise
- Efficiency of Diagnostic Technology
- Epidemiology System Level of Development
- Quantity of Anesthesiologists
- Quantity of Hospital Beds

Regional Specific Risks

- Population Size and Demographics
- Transparency and Reliability of Statistics
- Size of Elderly Population
- Level of Modern Sanitization Methods
- [redacted]
- Culture Specifics and Societal Discipline

By Deep Knowledge Group
Source: www.dkv.global/covid

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COVID-19 Treatment Efficiency

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Disease Monitoring

- Public Testing Booths
- Wide Scope of Diagnostic Techniques
- AI-Driven Diagnostic Analysis
- At-Home Testing Kits
- Speed and Frequency of Diagnostic Monitoring
- Infrastructure for Test Production and Delivery

Disease Management

- Level of Access to Personal Medical Supplies
- Scope of Government Media Campaigns
- Telemedicine for At-Home Guidance
- Social Distancing Compliance
- Quantity and Density of Non-Hospital Clinics
- Size of Protective Equipment Reserve

Emergency Treatment

- Total Number of Confirmed Cases
- Size of Emergency Equipment Stockpile
- Number of Critical Cases in Hospitals
- Quantity of General Healthcare Workers
- Number of Cases Admitted to Hospitals
- Quantity of Emergency Medicine Specialists

Novel Approaches for Treatment R&D

- Capacity for Accelerated Clinical Trials
- Experimental Treatments for Lethal Cases
- *in vitro* Human Tissue Testing
- *in silico* Treatment Validation
- Personalized Treatment Design
- General Flexibility of Drug Regulatory Framework

By Deep Knowledge Group
Source: www.dkv.global/covid

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DISCLAIMER

Deep Knowledge Group is using its best efforts to continuously update its COVID-19 rankings based on dynamic, publicly available metrics deemed reliable, such as World Health Organization, Worldometers, CDC, Johns Hopkins University, and other publicly available sources.

Certain metrics used for advanced and qualitative assessment were formulated by Deep Knowledge Group analysts in coordination with specific experts and consultants using proprietary sources and techniques. Therefore, such rankings may be adjusted over time depending on the corresponding underlying information and in coordination with ongoing enhancements to our underlying analytical methodologies.

Information provided herein is intended for indicative and informational purposes only. Opinions, estimates and analysis represented constitute the current judgment and opinion of the author.

Knowledge is Power
Deep Knowledge is Transcendent Power

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