

Coding Tree

Primary Code	Secondary Code	Tertiary Code	Quaternary Code	Quinary Code
00_Political_economy				
	Economic_factors	Jobs National_income		
	Political_factors	Lobbying Political_promises Political_will		
01_Market_opportunity				
	1_Supply_side	Conflict_or_disaster Distorting_regulation Infrastructure Limited_manufacturing_capacity Procurement_practices Producer_incentives		
	2_Demand_side	Affordability_out_of_pocket Affordability_UHC_insurance Incentive_structures Patient_preference Unexpected_demand		
	3_Market_regulation	Price_related	Global_budget Reference_pricing	Future adaptations

Consequences
 Functioning
 Reaction_towards_RP

Trade_related

02_Market_dynamics

Export
 Import
 Parallel_trade
 Transit

03_Actors

1_Macro Government
 MOH
 Organised_crime
 Other_international_org
 WHO

2_Producers (see also 9)

3_Supply_chain Brokers
 Distributors
 Smugglers
 Wholesalers

4_Healthcare_professionals Hospital
 Insurers
 Pharmacy

5_Patient_market_interface Internet
 Market

6_Regulators	MRA Police
04_Facilitator	
Corruption	Protecting_economic_interests
Disruption_&_adaptation	New_technologies Pricing_and_or_medicine shortage
Limited_capacity	Financial_resources Human_resources Technology
Systemic_failure	No_due_dilligence Poor_coordination Poor_planning
05_Motivator	
1_Legal_profit	Arbitrage Competitive_advantage Cost_reduction
2_Illegal_or_liminal_profit	Access_to_meds Avoid_red_tape_or_laziness Fraud_&_money_laundersing Need Perverse_incentives
06_Deterent	
1_Product_regulation	GDP GMP Inspection

	Licensing_&_market_authorisation	
	Standard operating procedures	
2_Detection	Laboratory	
	Reporting_systems	
	Risk_assesment	
	Track_and_trace	Future adaptations
		Consequences
		Costs
		Functioning
		Implementation_problems
		Physical_problems
		Software_problems
		Reactions_towards_track&trace
3_Transparency		
4_Systemic_approach	Avoid_production_shortages	
07_Legislation		
	Definitions	
	Medicine-related-laws	
	Penalties	Enforcement
		Penalties_for_other_falsification
		Penalties_for_pharma_crime
08_Quality		
	Falsified	Criminal_substandard
		Expiry_date_extended
		Quality_but_falsely_labelled
		Repackaged_as_different_product

	Total_fake
Other_illegal	Stolen_or_diverted
	Unregistered
Substandard	Degraded
09_Category_of_meds	
Producer_type	API
	Generic
	Innovator
Therapeutic	Lifestyle
	Noncommunicable diseases
	Other
	Sexual_health
	Vaccines

Abbreviations: API, Active Pharmaceutical Ingredient; GDP, Good Distribution Practice; GMP, Good Manufacturing Practices; MOH, Ministry of Health; MRA, Medicines Regulatory Authority; RP, Reference Pricing; WHO, World Health Organization.