

Chapter 20

Transparency, Technology, and the Way Forward

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Introduction: Beyond Diagnosis – Towards a Cure

After exploring India’s pharmaceutical crisis from manufacturing to marketing, from prescription to dispensing, it is clear that **piecemeal reforms will not be enough**. The challenge demands **a systemic overhaul** rooted in **transparency, technology, ethics, and empowerment**.

This final chapter outlines a **realistic yet bold roadmap** to reshape the Indian pharma ecosystem – restoring credibility, improving access, and rebuilding trust.

1. Strengthening Transparency Across the Chain

Transparency is the antidote to opacity, corruption, and conflict of interest. The sector must embrace it at all levels:

| **Table 1: Transparency Measures Needed** |

Area	Reform Recommendation
Drug Approvals	Publish all meeting minutes & decision rationales
Pharma Marketing	Mandatory public disclosure of doctor payments
Pricing	Real-time access to DPCO-covered drug MRP database
Recalls and Bans	Public alerts dashboard, mandatory notifications

Clinical Trials

Real-time registry updates, post-trial reports

“If people don’t know who influences what they consume, they can’t make informed decisions.” – Health activist, Delhi

2. Embracing Technology - The Digital Pivot

India’s scale requires digital solutions. A tech-first approach can address inspection backlogs, pricing inconsistencies, fake drugs, and irrational prescriptions.

a) Barcode-Based Drug Tracking (Track & Trace)

- All drugs to carry a **GS1-standard barcode**
- Scannable from manufacturer to patient
- Enables **real-time recall, expiry, and batch tracking**

b) e-Prescription Integration

- Link **doctors, chemists, and patient Aadhaar**
- Prevents prescription fraud and drug misuse
- Enables **prescription audits** and **rational use analytics**

c) AI for Pharmacovigilance

- Natural language processing to detect ADR patterns from EMRs, social media, and hospital logs
- Flag unsafe drugs or irrational prescribing clusters

| Table 2: Priority Digital Interventions |

System	Status	Urgency
eRx National Platform	Pilot (Kerala)	High
Barcode Track & Trace	Missing	High
Hospital-linked PvPI AI	Incomplete	Medium
Chemist Digital Licensing	State-level	Medium

3. Empowering Patients: From Recipients to Participants

Public health cannot improve unless patients are informed and engaged.

| **Table 3: Patient-Centric Reforms** |

Reform Area	Action Needed
Prescription Literacy	Simple, illustrated medicine guides
Adverse Reaction Reporting	Toll-free & SMS-based systems (PvPI 2.0)
Pricing Awareness	Mandatory display of generics and MRP on apps/stores
Drug Labelling	Clear, multilingual, colour-coded warnings

India must build a **citizen-pharma compact** that respects patient autonomy and rights.

4. Redefining Ethics in Pharma

The **voluntary UCPMP code** has failed to prevent gifts, foreign junkets, and high-margin inducements.

It must be replaced with a **statutory code**, enforced by an independent regulator.

| **Table 4: Ethical Reform Actions** |

Stakeholder	Mandate
Pharma Companies	Declare marketing spend, gifts, CME payments
Doctors	Declare affiliations, abide by e-prescription norms
Chemists	Cannot substitute without reason/documentation

Penalties must include:

- Suspension of license
- Blacklisting in procurement
- Naming and shaming via public database

5. Incentivising Innovation Over Imitation

India must evolve from being a **reverse-engineering hub** to a **true innovation powerhouse**.

Key Steps:

- **Patent reforms:** Fast-track approval of Indian-origin innovations
- **R&D tax credits:** Tie to outcomes (IP filing, clinical results)
- **Public-private incubators:** Biotech and orphan drug accelerators
- **Innovation fund:** Grants for diseases neglected by private sector

“We can’t lead the world with 1.5% R&D investment.” –
Pharma policy expert, Hyderabad

6. Redefining Regulation – From Punishment to Prevention

Regulators must become **risk-based, transparent, and tech-enabled.**

| **Table 5: Regulatory Shift – Old vs New** |

Dimension	Old Model	New Model
Approach	Reactive, punishment-driven	Proactive, preventive
Information Flow	Paper-based, siloed	Digital, interoperable
Inspection	Periodic, manual	Real-time, AI-prioritised
Accountability	Opaque, centralised	Public dashboards, audit trails

India’s **next-generation regulator** must be autonomous, data-driven, and publicly accountable.

7. Creating a National Drug Policy 2.0

India urgently needs a modern, integrated **National Pharmaceutical Policy**, with five pillars:

1. **Access** – Universal availability of essential medicines
2. **Affordability** – Fair, regulated pricing across brands
3. **Quality** – Eliminate substandard, irrational drugs
4. **Ethics** – Stop perverse incentives in prescribing & dispensing
5. **Innovation** – Create an ecosystem for original drug discovery

Such a policy must align with the **National Health Policy (2017)** and be reviewed every **5 years** with public feedback.

8. What Success Could Look Like – A Vision for 2030

| **Table 6: Vision 2030 Goals for Indian Pharma** |

Indicator	Target by 2030
% Drugs sold with eRx	>75%
ADR reporting rate (per lakh pop)	10x increase
Share of generics in private market	>60%
Patient trust rating (survey index)	80%+ trust in generics and chemists
Pharma innovation rank (global)	Top 10 globally

Achieving this will require **political courage, regulatory independence, and citizen pressure.**

Conclusion: The Prescription for Reform

India’s pharmaceutical crisis is not a failure of production capacity – it is a failure of **governance, ethics, and transparency.**

But the crisis is also an opportunity: to become not just the “pharmacy of the world,” but **a model for responsible, patient-first healthcare.**

This transformation demands we treat medicines not as mere commodities, but as **public goods tied to the right to life.**

The road ahead will be hard – but the roadmap is clear.

References

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