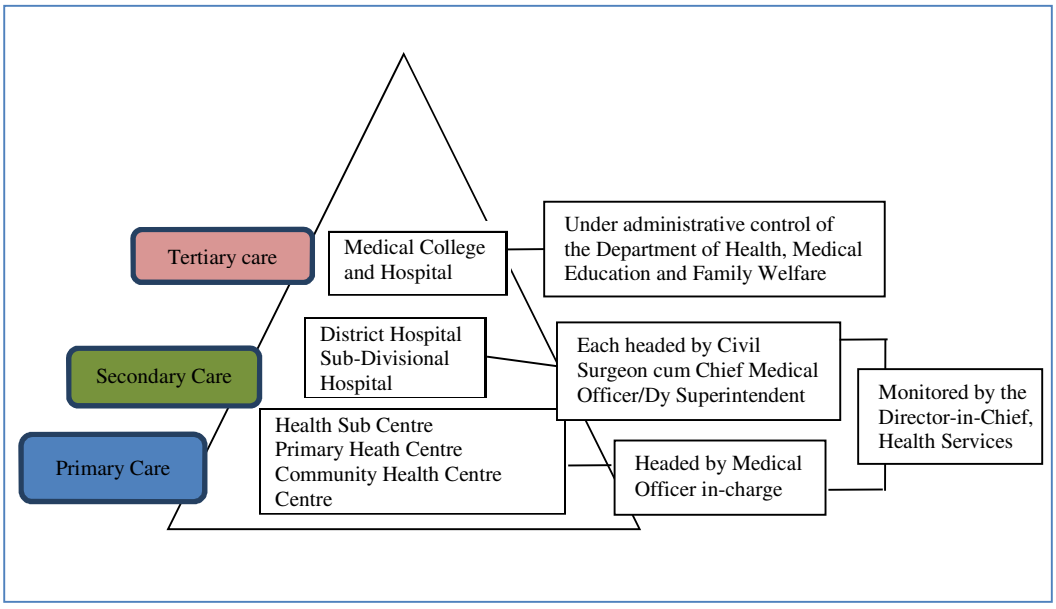
Chapter 1 Introduction

The focus of India's National Health Policy 2017 is to strengthen the trust of the common man in the public healthcare system by making it predictable, efficient, patient-centric, affordable and effective, with a comprehensive package of services and products that meet the immediate healthcare needs of the people. At the global level, the Sustainable Development Agenda aims to ensure healthy lives and promote well-being for all by 2030 as per the Sustainable Development Goal (SDG) 3.

In Jharkhand, a three-tier health care system viz,. primary, secondary and tertiary was envisaged to provide quality medical care services to the people of the State as depicted in **Chart 1.1** below:

Chart 1.1: Public Healthcare Facilities in Jharkhand



Patients requiring more serious health care attention are referred to the second-tier health care system. In tertiary health care system, specialised consultative care is provided by the medical colleges and advanced medical research institutes upon referral from primary or secondary health care units.

A performance audit on District Hospital Outcomes in Jharkhand was taken up as the inhabitants of a district are mainly dependent on District Hospitals for specialised and comprehensive health care.

As per Indian Public Health Standards (IPHS) guidelines, every district is expected to have a district hospital linked with health care units. There are 23 DHs[4] functioning in 23 out of the 24 districts of the State. Bed strength in a DH varies from 100 to 250 beds depending upon the size, terrain and population of the district.

1.1 Health indicators in Jharkhand

As per Health and Family Welfare Statistics in India for the year 2019-20 published by the Ministry of Health and Family Welfare, Government of India, some important health indicators of Jharkhand *vis-à-vis* India are shown in **Table 1.1**

Table 1.1: Performance in Health Indicators

Sl. No.	Health Indicator	Jharkhand		India	
		2015[5]	2017	2015	2017
1	Maternal Mortality Ratio (MMR) (*per* lakh live births)	165	165	130	122
2	Infant Mortality Rate (IMR) (*per* 1000 live births)	32	29	37	33
3	Neonatal Mortality Rate	23	20	25	23
4	Stillbirth Rate	1	1	4	5
5	Under 5 Mortality Rate (*per* 1000 live births)	39	34	43	37
6	Institutional Deliveries (as *per cent* of total deliveries)	81.34	90.48	88.9	90.37

Source: Health and Family Welfare Statistics in India 2019-20 published by GOI

It can be seen from **Table 1.1** that MMR in Jharkhand was higher than the national average and had not improved in 2017 as compared to 2015. However, the performance of the State in the other indicators was better as compared to the national average.

1.2 Norms for health facilities in the hospitals

1.2.1 Indian Public Health Standards

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the quality of health care delivery in the Country. These standards are used as the reference point for public health care infrastructure in the States and UTs.

1.2.2 National Health Mission

The National Health Mission (NHM) of Government of India (GoI) comprises two sub-missions viz., National Rural Health Mission (NRHM)

[4] Except in Dhanbad district where building for 100 bedded DH has been constructed but manpower is yet to be sanctioned (March 2020).

[5] Since 2015, MMR is available annually through collating sample of three consecutive years at a time.

and National Urban Health Mission (NUHM) launched in April 2005 and May 2013 respectively.

The objective of NHM is to guide the State Government for ensuring achievement of universal access to health care through strengthening of health care systems, institutions and capabilities. The major components of NHM are Health System Strengthening, Reproductive, Maternal, New-born and Adolescent Health, National Disease Control Programmes etc.

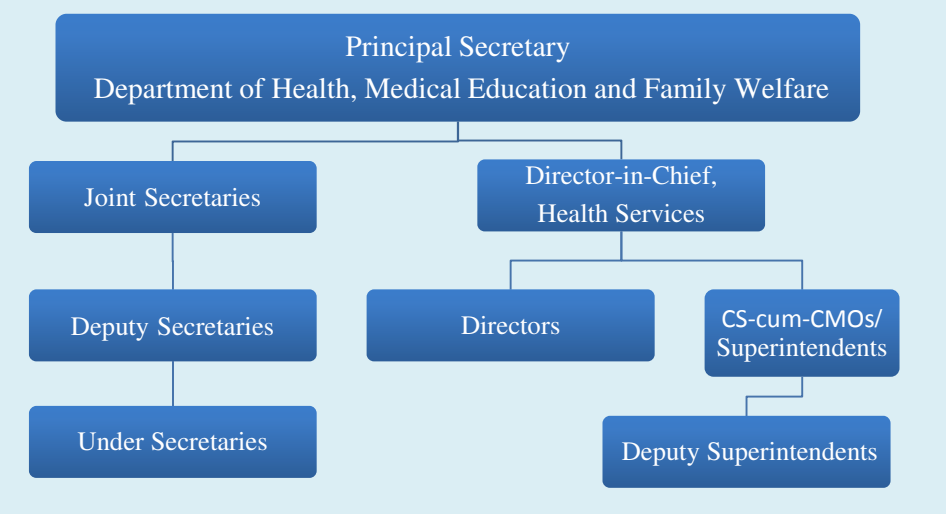
1.3 Organisational set-up

1.3.1 District Hospitals

The Department of Health, Medical Education and Family Welfare (Department), Government of Jharkhand (GoJ) headed by the Principal Secretary is responsible for the management of all Primary, Secondary and Tertiary health care systems. The organisational set up of the Department is shown in **Chart 1.2**.

Chart 1.2: Organogram

Health, Medical Education and Family Welfare Department



1.3.2 National Health Mission

National Health Mission (NHM) is implemented through the State Health Society (SHS) and District Health Societies (DHS) at the State and District level respectively. At the State level, the Jharkhand Health Mission (JHM) and at the district level, District Health Missions (DHM) were constituted by GoJ in 2006 for implementation of the National Health Mission.

1.4 Audit objectives

The Performance Audit of "District Hospital Outcomes in Jharkhand" was undertaken to assess whether:

(i) comprehensive plans and strategies regarding District Hospitals have been developed and implemented effectively for ensuring availability of accessible, affordable and quality health services;
(ii) financial management was efficient, adequate funds were made available in time and allocated funds were utilised optimally for providing prescribed health care facilities at the District Hospitals;
(iii) adequate provisions for line services such as out-patient services, in-patient services, intensive care units, operation theatres, maternity, etc., existed in District Hospitals and these services were delivered in an efficient and effective manner;
(iv) District Hospitals had efficient support services with regard to Registration, Diagnostic/Radiology services, diet management, ambulance service, bio-medical waste management, cold chain, power backup, etc.;
(v) District Hospitals had adequate resources viz., human, infrastructure, drugs, consumables, equipment etc., as per prescribed norms and these resources were utilised efficiently and effectively;
(vi) services relating to important health related programmes under NHM have been implemented adequately in the District Hospitals;
(vii) the health facilities followed norms and practices for auxiliary services like infection control, cleaning & laundry and public and patient safety;
(viii) the health facilities had a system in place to manage disasters/mass casualties and follows applicable norms and practices to deal with disaster situations; and
(ix) effective monitoring and regulatory systems have been put in place for ensuring delivery of quality health care to the public.

1.5 Audit criteria

The list of sources of criteria is given below:

- Indian Public Health Standards (IPHS), 2012;
- Framework for Implementation of National Health Mission (NHM),
- Operational Guidelines for Quality Assurance 2013 and NHM Assessor Guidebook DH Vol. I & II (2013);
- Maternal and Newborn Health Toolkit, 2013;
- National Cold Chain Policy, 2008;
- National Disaster Management Guidelines, 2014 and National Disaster Management Guidelines for Hospital Safety, 2016; and
- Departmental/ Government policies, rules, orders, manuals, regulations and MoUs.

1.6 Scope of Audit and Methodology

An Entry Conference was held on 10 January 2020 with the Principal Secretary of the Department wherein audit objectives, scope, criteria etc.,

were discussed and the inputs of the Department were obtained. The audit scope covered public health facilities available at the District Hospitals (secondary health care units) and involved scrutiny of records for the period 2014-19.

The audit included examination of records in the offices of the Principal Secretary of the Department, Mission Director (NHM), Director-in-Chief (Health Services), Jharkhand Medical and Health Infrastructure Development and Procurement Corporation Limited (JMHIDPCL), Jharkhand State Building Construction Corporation Limited (JSBCCL), Societies viz., State Health Society/District Health Societies and six selected District Hospitals (DHs). For assessing outcome and quality of health services available at DHs, five[6] months were selected for detailed scrutiny of data and records.

An Exit Conference was held on 9 February 2021 with the Principal Secretary of the Department wherein audit observations pertaining to the period 2014-19 were discussed. The Principal Secretary assured that remedial action would be taken to improve the health facilities at DHs with respect to shortcomings highlighted by Audit. The Department also furnished (January 2021) replies which are suitably incorporated in the Audit Report.

1.6.1 Sampling methodology

In Jharkhand, there are 23 DHs under five[7] Commissionerates. Of these, six[8] DHs (25 *per cent*) were selected on the basis of aggregate patient load both in In-patient Department (IPD) and Out-patient Department (OPD) through stratified sampling.

1.7 Financial Management

1.7.1 Funding of District Hospitals

The State provides funds for the health facilities under Grant No. 20 comprising of four Major Heads of Accounts viz., 2210 (Medical and Public Health), 4210 (Capital Outlay on Medical and Public Health), 2211 (Family Welfare) and 2251 (Secretariat- Social Services). Funds for DHs are provided under Major Head 2210. Apart from the State budget, DHs also get financial assistance under NHM with corresponding share of the State Government. Funds provided to the DHs are not shown separately in the State Budget and are clubbed together with funds provided to other health facilities of the State. Hence, Audit could not segregate the overall funds allocated to the DHs and expenditure there against. Similarly, Audit could not assess the quantum of NHM funds released to DHs and expenditure

6 May 2014, August 2015, November 2016, February 2018 and May 2018.
7 Kolhan, North Chotanagpur, Palamu, Santhal Pargana, and South Chotanagpur.
8 Deoghar, East Singhbhum, Hazaribag, Palamu, Ramgarh and Ranchi.

there against as this information was not provided by the Department though repeatedly called for.

Year-wise allocation of funds in the State budget meant for the entire health services in the State and expenditure there against during 2014-19 is shown in **Table 1.2**.

Table 1.2: Allocation and expenditure from the State Budget

(₹ in crore)

Year	Allocation	Expenditure	Savings (percentage)
2014-15	2,708.66	1,608.50	1,100.16 (41)
2015-16	3,303.85	2,158.50	1,145.35 (35)
2016-17	3,397.71	2,468.93	928.78 (27)
2017-18	4,044.15	2,847.18	1,196.97 (30)
2018-19	4,349.89	3,382.55	967.34 (22)
Total	**17,804.26**	**12,465.66**	**5,338.60 (30)**

(Source: Appropriation Accounts of respective years)

Table 1.2 shows that expenditure incurred by the Department increased by ₹ 1,774.05 crore (110 *per cent*) from ₹ 1,608.50 crore in 2014-15 to ₹ 3,382.55 crore in 2018-19. Though savings decreased from 41 *per cent* in 2014-15 to 22 *per cent* in 2018-19, it could have been utilised for purchase of much needed medicines, machines & equipment, development of infrastructure etc., as discussed in other chapters of the Report.

1.7.2 National Health Mission

GoI released funds under NHM based on the approved State Programme Implementation Plan (SPIP). SPIP included District Resource Envelope (DRE) showing fund provision for health facilities/programmes in a district without factoring in the hospital-wise requirements including DHs. Receipt and utilisation of funds under NHM during 2014-19 is shown in **Table 1.3**:

Table 1.3: Receipt and utilisation of funds under NHM

(₹ in crore)

Year	Opening balance	Receipt during the year	Total funds available during the year	Expenditure (percentage)	Closing balance
2014-15	18.86	849.49	868.35	361.79 (42)	506.56
2015-16	506.56	513.68	1,020.24	486.79 (48)	533.45
2016-17	533.45	500.68	1,034.13	520.75 (50)	513.38
2017-18	513.38	850.00	1,363.38	609.92 (45)	753.46
2018-19	753.46	677.08	1,430.54	862.57 (60)	567.97

(Source: Information provided by the State Health Society)

As shown in **Table 1.3**, percentage of expenditure ranged between 42 and 60 *per cent* against available funds during 2014-19 whereas overall ₹ 2,841.82 crore (83[9] *per cent*) of NHM funds were utilised.

[9] Of the total funds received during 2014-19 including opening balance of ₹ 18.86 crore *i.e.*, ₹ 3,409.79 crore.

1.7.3 Funding for District Hospitals

Allotment and expenditure from State funds during 2014-19 to the six test-checked DHs are detailed in **Table 1.4**:

Table 1.4: Allotment and expenditure in six test-checked DHs

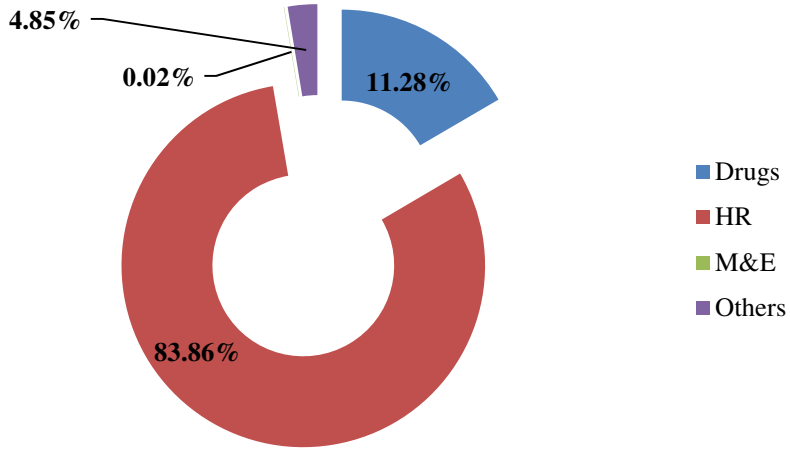
(₹ in crore)

Year	Allotment	Expenditure	Savings
2014-15	20.43	20.12	0.31
2015-16	24.88	24.31	0.57
2016-17	42.27	39.14	3.13
2017-18	37.73	36.29	1.44
2018-19	48.08	41.75	6.33
Total	**173.39**	**161.61**	**11.78**

(Source: Information obtained from six test-checked DHs)

Component-wise break-up of the expenditure incurred during 2014-19 is presented in **Chart 1.3**:

Chart 1.3: Component wise expenditure during 2014-19



As seen from **Chart 1.3**, 84 *per cent* of expenditure was on salary and emoluments to doctors, nurses etc., and 11 *per cent* on drugs in the test-checked DHs during 2014-19.

1.8 Hospital Services

Health services provided by DHs can broadly be divided into four categories viz., Resource management, Clinical services, Support services and Auxiliary services.

Adequacy and efficiency of Clinical, Support and Auxiliary services in hospitals impact the quality of medical care provided and the level of patient satisfaction achieved. Inadequacy and inefficiency of these services have been a matter of concern in various hospitals in the State. To assess the efficiency and outcome of these services in the test-checked DHs, Audit evaluated outcome indicators i.e., Bed Occupancy Rate (BOR), Leaving

Against Medical Advice (LAMA), Patient Satisfaction Score (PSS), Average Length of Stay (ALoS) etc., as prescribed by IPHS and found significant shortcomings.

1.9 Acknowledgement

Audit acknowledges the co-operation extended by the Health, Medical Education and Family Welfare Department and all selected District Hospitals in conduct of the Performance Audit.

1.10 Structure of the report

This report has been structured on the basis of various services and resources available in a hospital. The audit findings under the themes have been reported in seven chapters as follows:

- Chapter 2: Out Patient (OPD) Services;
- Chapter 3: Diagnostic Services;
- Chapter 4: In-Patient (IPD) Services;
- Chapter 5: Maternity Services;
- Chapter 6: Infection Control;
- Chapter 7: Drug Management; and
- Chapter 8: Building Infrastructure.

1.11 Policy framework for healthcare services

Delivery of quality and efficient healthcare services plays a significant role in improving the health indicators of the public at large. Thus, it was incumbent upon the Department, responsible for providing and managing the healthcare facilities in the State, to carry out comprehensive and outcome-based planning so that essential resources are provided to the public hospitals and ensure that available resources are utilised optimally in the short, medium and long-term.

Audit, observed that the policy framework under which the planning was to be done was inadequate, as discussed in the succeeding paragraphs:

1.11.1 Standardisation of services and resources

For ensuring efficient operation of DHs, it is essential to prescribe standards/norms for providing various resources. On the basis of these standards/norms, requirement of resources should be assessed and provisions made accordingly.

Audit observed that the Department did not formulate its own standards/ norms to ensure availability of all types of resources and services in adequate quantum in DHs. However, it followed IPHS and other GoI norms in planning, deployment of human resources, procurement of drugs and equipment and ensuring availability of other healthcare facilities as shown in **Table 1.5**.

Table 1.5: Standardisation of services and resources in DHs

Services/ Resources	Availability of State Government norms	Other norms/standards
OPD and IPD services	No	NHM Assessor's Guidebook, IPHS
Diagnostic services	No	NHM Free Diagnostics Service Initiative, IPHS
Human resources	No	NHM Assessor's Guidebook, MNH Toolkit IPHS
Drugs and consumables	Essential Drugs List, Drug Procurement Policy	NHM Assessor's Guidebook, MNH Toolkit, Free Drug Initiative of GoI, IPHS
Equipment	Equipment Procurement Policy but without standardisation of the types and number of equipment required for hospitals	NHM Assessor's Guidebook, IPHS
Hospital beds	No	NHM Assessor Guidebook, IPHS

Further, facility development plans for improvement of different components viz., infrastructure, equipment, human resources, drugs and supplies, quality assurance and service to be prepared for each hospital (as per NHM Framework 2012-17) on the basis of analysis of gaps in the health facilities was not prepared as the Department did not carry out gap analysis to assess the requirement of resources and services. As a result, a meaningful budgetary exercise to assess actual fund requirement with respect to gaps in resources could not be carried out either at the field or State level and the provision of funds in the budget were made on *ad hoc* basis.

1.12 Policies for acquisition of resources

1.12.1 Human resources

The delivery of quality healthcare services in hospitals depends to a large extent on adequate availability of manpower especially in the cadres of doctors, staff nurses and para-medical staff.

Sanctioned strength, person-in-position and shortage of doctors and paramedics in the State as of March 2019 is given in **Table 1.6**.

Table 1.6: Sanctioned strength, person-in-position and shortage of doctors and paramedics in the State

Sl. No.	Name of Post	Sanctioned Strength	Person-in-position	Shortages (*per cent*)
1	Medical Officer/ Specialist	733	310	423 (58)
2	Staff Nurse/ Auxiliary Nursing Midwife	586	104	482 (82)
3	Paramedic	435	103	332 (76)

It can be seen from **Table 1.6** that shortage of doctors, nurses and paramedics ranged between 58 and 82 *per cent*.

Audit examination also revealed the following:

- To meet the IPHS norms, the GoJ sanctioned (between July 2013 and November 2015) 414 posts of MO/Specialist for DHs in addition to the 319 existing posts. However, against the total sanctioned 733 posts of MO/ Specialist for DHs in the State, person-in-position (PIP) was only 310 (42 *per cent*) as of March 2019. Audit further noticed that though 317 MOs/ Specialists were offered appointment during the years 2016 to 2018, only 143 joined the service. Out of the 143 newly recruited MOs/ Specialists, 10 specialists left the job and 26 were absconding as of March 2019. Thus, DHs were facing an acute shortage of doctors.

- To meet IPHS, GoJ sanctioned (August 2017) 649 posts of Staff Nurse and Paramedics for DHs but recruitment was not carried out as of March 2019. Audit noticed that, as against 1,021 sanctioned posts of Staff Nurse/ANM (586) and Paramedic (435), vacancies were 814 (80 *per cent*) in the posts of Staff Nurse/ ANM (482) and Paramedics (332) as of March 2019.

- Test-checked DHs were also facing acute shortage of doctors (40 *per cent*), staff nurse (68 *per cent*) and paramedics (60 *per cent*) as discussed in **Chapter 4**.

Thus, DHs in the State were suffering from persistent shortage of doctors and paramedics which ultimately affected delivery of quality health services to the public.

1.12.2 Drugs and equipment

GoJ promulgated the Jharkhand State Drug Policy (JSDP) in June 2004. The policy was framed to ensure availability and accessibility of safe and quality essential medicines to the people through an efficient selection, procurement, distribution and storage system in the State. Under the policy, a State Medicines Selection Committee and a Medicines Procurement Committee respectively were made responsible for preparation of the Essential Drugs List (EDL) and execution of Rate Contracts (RCs) with manufacturing firms for uninterrupted supply of drugs at reasonable cost. CS-cum-CMOs were to issue supply orders/ indents to the contracted firms for supply of drugs as per requirement.

Later on, Jharkhand Medical and Health Infrastructure Development Procurement Corporation Limited (JMHIDPCL) was established (April 2013) under the Companies Act and was entrusted with the work of procurement and distribution of medicines, equipment and basic infrastructure to the health facilities in Jharkhand. The Directorate was to compile indents received from field level offices and submit a compiled indent to JMHIDPCL for centralised purchase. In the absence of Rate Contracts (RCs), JMHIDPCL was authorised to procure drugs and

consumables from firms having RCs with GoI, other State Governments or the Directorate General of Supply and Disposal (DGS&D). Examination of records revealed the following:

- The Directorate provided (March and May 2015) State funds amounting to ₹ 100.31 crore to JMHIDPCL during 2014-19 for procuring drugs. JMHIDPCL, however, procured drugs only for ₹ 12.46 crore during 2016-18 and refunded (June 2020) the un-utilised balance of ₹ 87.85 crore (88 *per cent*) to the Department.

- The State Health Mission (SHM) also released funds under NHM amounting to ₹ 51.43 crore during 2016-19 to JMHIDPCL for procuring drugs against which drugs worth ₹ 40.54 crore was procured during 2016-19.

- The Directorate provided State funds amounting to ₹ 109.82 crore to JMHIDPCL during 2014-16 for procurement of equipment. However, JMHIDPCL procured equipment for only ₹ 3.20 crore during 2016-17 and refunded (June 2020) ₹ 106.62 crore to the Department. Further, against ₹ 12.22 crore released during 2016-19 by SHM to JMHIDPCL for procurement of equipment, only ₹ 5.58 crore was spent during 2017-19.

Short utilisation of funds resulted in shortage of drugs and equipment in test-checked DHs as discussed in Chapters 4, 5 and 7 of the Report.

***To sum up**, The Department did not formulate its own norms in respect of resources and services for District Hospitals and was following IPHS and GoI norms/standards. Provision of funds to DHs were made on ad hoc basis in the absence of gap analysis to assess the requirement of resource and services. Acute shortage of doctors, nurses and paramedics coupled with short-utilisation of funds provided for procurement of drugs and equipment adversely affected the delivery of quality health services to the public as discussed in the subsequent chapters.*