Cloud-based Medical Intelligence

To contain Health Insurance Fraud

InCHES Healthcare

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Abstract

Applying data analytic algorithms on conclusion(s) of both concurrent and post facto clinical audit conducted on life and health claims revealed that since both, parameters for health and sickness, and the standards and rules for insurance remain the same across a nation or a continent; the methods for fraud are also common across most geographies. This in turn led to the conclusion that Universal insurance fraud allows for a universal remedial solution – a medical intelligence solution developed by combining common triggers with practicing Doctors' insights

A cloud-based solution would give 24/7 worldwide access and high-speed solutions that would permit clinically auditing each and every claim – from the commonest to the rarest!

Introduction

The global market for health and medical insurance providers reached **$1.1 trillion in 2016**. This market is estimated to **reach $1.6 trillion by 2020 from $1.2 trillion in 2017** at a compound annual growth rate (CAGR) of **8.6% for 2016-2020**.

At this financial scale and with the lack of absolute verification protocols, neither at the point of sale, nor while settling claims, has made abuse and fraud more of a norm rather than an aberration. **Conservative estimates peg fraudulent claims worldwide to be in the region of 5-20%.**

Acute shortage of qualified medical professionals to review claims makes 'Leakage' another medium of loss.

Clinical audit is a review of treatment given to ensure that what *should* be done is *being* done. The ideal treatment rather than under or over treated. This in turn is used as a framework to both enable improvements in the line of management as well as to review claims.

Developing a solution, which has established/ accepted/ Standards Treatment Guidelines (STGs) accessible through a cloud based interactive database is the key.

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Problem Statement

Seventeen years since privatization of insurance in India;
despite…

- Robust systems/ Processes
- Network hospitals/ PPN
- IT solutions
- Fraud policies and fraud control measures…

…incurred claim ratio continues to rise!

In the Insurance scenario in India, pricing and claim servicing has a great impact on an Insurance Company's bottom line. In fact, in last decade and a half claim cost has had a direct bearing on the pricing.

Leakages and frauds on account of claim/underwriting adversely affect the claim experience, which in turn has started affecting the pricing.

Industry experts are of the opinion that this is not due to poor pricing of the product! But largely due to fraud!!

Insights and observations from Planning Commission report on **"A Critical Assessment of the Existing Health Insurance Models in India":**

> Although, the fraud can happen at any point of the health insurance value chain, there are many examples of providers colluding with patients to milk insurance company or the scheme in the wake of poor vigilance. The providers tend to benefit the most from fraud through over billing and supplier induced demand efforts.

Under RSBY, 60 hospitals, many of them in Uttar Pradesh, Bihar and Gujarat, have been found to file false insurance claims. The most blatant case is that of district of Dangs in Gujarat where private sector hospitals had submitted false claims for several months before being discovered. The claims ratios in the district shot up to 200 per cent before the authorities could figure out a way to blacklist the hospitals.

The above instances support the contention that fraud is rampant - both in self-paid/ employer paid health insurance as well as Government Mass Schemes.

Solution

Most analytics on fraud and abuse are using post facto data i.e. after the fraud has been perpetrated and insurer/ exchequer has suffered huge losses. The need of the hour is to have a fraud alert mechanism operating in real time, concurrently as the claim is being processed. Post settlement- either the recovery is expensive, not always successful or not optimal.

While most studies highlight 'poor vigilance', they miss a key element. The current vigilance is driven primarily by those who are not qualified enough/ trained enough to pick up apparent red flags. The large volumes and TAT pressures don't help the cause - consider the following numbers:

- **A small standalone health insurer – handles 5000-6000 claims monthly. Translates to 200+ claims a day.**
- **A mid-size health insurer handles 7000-9000 claims a month. Translates to 250-300+ claims a day.**
- **A large private sector general insurer with healthy health portfolio handles 15,000+ claims a month. Translates to 550+ claims a day**.

90% claim pay-out ratio translates into a manual sifting of data of over 25% suspect claims to finally arrive at the 10% repudiation.

The select cases have to further go through a semi medico-legal audit to ascertain – can the reasoning and conclusion be well represented at a legal forum? It is not prudent to deploy resources for cases where there might be legal ambiguity going ahead

Cases that come out of these checks, then have to be evaluated against higher business interests like group insurance size and customer

satisfaction. Decisions taken here are considered a +ve for fraud containment process as they have been vetted repeatedly.
With TAT of 2-6 hours at pre-authorization; 2-5 days at payout stage of pre-authorized claims and 6-8 days for reimbursement claims – identifying and building a strong case with alacrity is very important.

Enter **Medical Intelligence** – one of the sharpest & efficient tool to contain fraud – rules based on grass root level experience of managing fraud and abuse.

Big Data analysis deploying Medical intelligence can give outstanding results and helps, *"to understand and analyze actual phenomena"* as they are occurring. To obtain good results from analysis, one needs to define specific 'outliers'. When a claim triggers an outlier, there needs to be a team of doctors with domain experience who not only know WHAT exactly are the triggers to look for but also have insights into how data analysis works.

Once the suspicious 20-25% claims are shortlisted, comes the true test – **updated medical insights** pertaining to 'THE' claim at hand. The doctor who is auditing should have easy access to updated Standard Treatment Guidelines (STGs) and need to evaluate the claim against the background of the specific STG and policy terms and conditions.

Summary of Clinical Audits performed by INCHES' *Team*
Health & Life Claims (till 31.3.2018)

Claim cases analysed*	**50,940 cases (Claim pay-out 71.90 Billion INR)**
Claim cases Manually Audited	**10,415 cases (Claim pay-out 1.78 Billion INR)**
Helped recover/ save	**0.170 Billion INR**

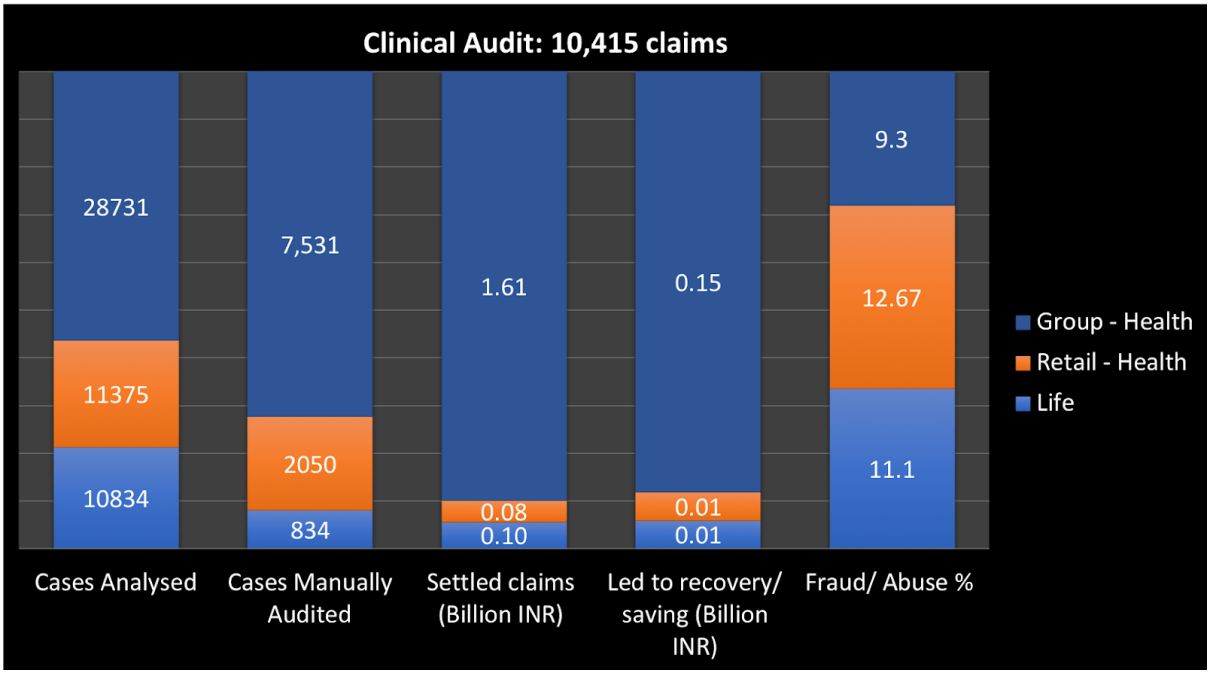
Decision congruence	**78.8%**
Turn Around Time	**97% (within stipulated time)**

Various triggers basis which claims were flagged Red and Amber

Clinical triggers:

- Hospitalization was not warranted basis clinical parameters.
- No active treatment given/ treated irrationally/ extensively/ only tonics.
- Hospitalization done to legitimize the expensive/ unwarranted medical investigations done
- Material treatment anomalies
- Suppression/manipulation of pre-existing diseases
- No treatment given for the clinical diagnosis mentioned on discharge summary.
- Admitted for controlling diabetes/ hypertension, which was possible on OPD basis
- Pre-hospitalization/ post hospitalization medicines purchased - not related to claim.
- Post hospitalization bills – 5 to 10 times of hospitalization billing
- Presenting a congenital ailment as acquired, so as to be admissible
- Presenting a medical ailment as traumatic, so as to be admissible
- Treatment given on OPD basis shown IPD management.
- Documents created for insurance (neither hospitalization occurred; nor was treatment given).
- Patient hospitalized but no lab investigations done (before or during hospital stay) to diagnose/ monitor the clinical condition.
- Misrepresentation of Diagnosis and procedure. Eg Fertility management shown as pain in abdomen.
- Length of stay extended/ irrational ICU stay
- Trauma management cases with surgery undergone; with no pre-post X-rays/ implant invoice.
- Lab Investigation/ Imaging:
    - Test not done, yet billed
    - Unnecessary test done

- Same Values of parameters reported in multiple patients.
- Exorbitant billing for individual test
- Test not done / nomenclature not used in India, billed



Non-clinical triggers

- Bills exaggerated/tampered/suspicious (Not payable as per approved tariff)
- Despite package rate, consumables/doctors fee billed.
- Irrational referral to other specialties.
- Items not payable as per IRDA norms, billed paid.
- Incomplete Documentation to assess the admissibility of the claim
- *fracture surgery claims settled without pre-post x-ray &/ or implant invoice not shared by provider(s)*
- Non-existent labs/ medical stores.
- General wards tariff of small 10-12 bedded nursing home equals/ more than similar tariff of tertiary care star hospitals; similarly, inflated doctors fee.
- Non MBBS doctors treating/ operating.

"A path breaking, cloud-based proprietary Application, based on Standard Treatment Guidelines and customary care standards with analytics (both rule based and predictive) driven intelligent scoring to perform medical adjudication of health insurance claims in real time. A system that is updated continually and possibly an insurer specific slider that can be adjusted to come up with 75-80% STP decisions".

The rules on which scoring is based is termed "**INCHES' Gyan**[1]"

It incorporates:

- ICD codes for medical diseases, injuries, malignancies
- For surgeries done, we have created special surgical codes as use of PCS codes is not very widespread.
- For malignancy
    - Medical codes are ICD codes
    - Surgeries in malignancies are in-house codes
- Intelligence gathered over 17 years and over scrutiny of thousands of cases while opining on admissibility, supporting repudiation of concurrent as well as post-facto clinical audit of claims and capturing facts like:
    - OPD treatment taken prior to hospitalization; it's documentary evidence
    - Creating list of vulnerable providers with historic data
    - Soliciting fact(s) about ICU hospitalization
    - Subtly picking up red flags that aid decision making by the claim assessors.

INCHES' Gyan

[1] *Gyan is a term in Hindi language and denotes 'deep knowledge'.*

A total of 26 variables are used for decision making:

These 26 variables can be clubbed under five (5) principle areas

1. Justification of hospitalization? *If, decision to hospitalize is justified, then scrutinize for…*
2. Appropriateness of Length of Stay
3. Appropriateness of investigation modalities deployed
4. Appropriateness of management done
5. Various heads of bills raised

Conclusion

The problem of insurance fraud may be both gigantic and universal, but it's not insurmountable.

Clear anti-fraud organizational philosophy, stricter and clearer laws to deal with the fraudster, along with data and knowledge-backed audits can, for sure, make a significant dent in the losses suffered by insurance companies, saving millions of dollars every year.

Additional resources

1. https://www.prnewswire.com/news-releases/the-global-market-for-health-and-medical-insurance-providers-reached-11-trillion-in-2016-300577338.html
2. *http://planningcommission.nic.in/reports/sereport/ser/ser_heal1305.pdf*
3. https://www.irdai.gov.in - Annual report of 2016-2017
4. https://www.insuranceinstituteofindia.com/c/document_library/get_file?uuid=e4632c21-da80-494c-9264-395283e3e4c0&groupId=16940

About InCHES Intelli-Claims Risk solutions

InCHES is a leader in providing risk solutions based on medical and medico legal insights that helps customers across all verticals of insurance industry to assess and manage risk. Integrating cutting-edge technology and insightful scoring analytics, we provide products and service that address evolving pain points specific to clients ensuring highest standards of security and TAT.

Core team:

1. Padmashree Prof Dr Alaka Deshpande – *Director Clinical services*
2. Dr C H Asrani - *Chief visionary & CEO*
3. Dr Sushma Jaiswal – *Executive Director*
4. Dr S B Jain – *Head Clinical Protocols*
5. Dr Salma Rayani Khan – *AVP Legal services*
6. Dr Ashwin Rao Shinde – *Sr Clinical Associate*
7. Dr Satish Kanojia – *AVP Field services*
8. Dr Bhavini Shah - *Sr Clinical Associate*
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