Summary of the ICD-11 JLMMS Task Force Meeting
1-4 September 2015, Glion, Switzerland

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Executive Summary

Meeting Concept
- The ICD-11 Revision Review report (April 2015) recommended that strong focus be placed on the Joint Linearization for Mortality and Morbidity Statistics as a priority. The WHO response to the report 9June 2015) confirmed this priority\(^1\).
- The recently released project plan for the JLMMS highlights the key milestones for the project. Key amongst these milestones is the continued progress of JLMMS technical development through the JLMMS Task Force. This meeting is the second JLMMS Task Force meeting.

Meeting Objectives
The objectives of the meeting were to:
- Finalise JLMMS linearization and rules, and agree other technical aspects; and
- Agree future strategies to support further development steps for JLMMS, including testing and review strategies.

Key Strategic Agreements
- It was agreed that governance and decision-making will be critical to moving forward.
- It was also generally agreed that the JLMMS would require a period of evaluation, once key technical decisions had been implemented.
- It was agreed that the Task Force will be briefed on any possible changes needed to the decisions made in this meeting.

Principles for Technical review of the JLMMS
Principles for systematic technical review of the JLMMS were also noted throughout the meeting, including:
- Flattening or redesign is required, with reference to what needs to be preserved;
- Hierarchies need to be reviewed systematically for usage validation
- The Task Force preference is not to proliferate complexity within the JLMMS;
- Backward comparability to ICD-10 is preferred, but not exclusively, especially when it concerns evolution in health science knowledge.

Key Technical Decisions
- The reference guide will be reviewed and further developed to accompany the JLMMS;
- Infectious disease chapter was agreed by consensus to be revised using the frameworks provided by the Nordic Centre, and WHO (see section 2.6 in this document and agenda papers 10, 22 and 23);
- Diabetes chapter was agreed to be revised using an approach agreed at the meeting (see section 2.7 in this document, and agenda papers 24 and 26);
- WHO is also to develop a paper on possibilities for future decision-making affecting updating, testing and review as they impact JLMMS;
- Postcoordination and clustering directions need to be reviewed;
- Chapters need to be checked for the occurrence of precoordinated concepts that are longer than 5 characters (e.g. code for Tetralogy of Fallot).

\(^1\) The review report and WHO response can be viewed at http://www.who.int/classifications/icd/externalreview/en/
## Decisions-at-a-Glance

### Part 1 - Introduction and Strategic Overview – Decisions Only

#### 1.3 JLMMS Progress Overview

**Decisions Taken:**
- Progress a paper during the week to better articulate the narrative and core properties of the Joint Linearization

**Action Items:**
- Need to further progress the narrative and core properties of the ‘joint’ linearization, people who spoke to contribute to a review of Bedirhan Ustun’s paper, and have revision by the end of the week. (James E-H to lead)
- James EH will continue to work on the paper – small working group formed to progress immediately
- Jenny H to progress use case document with small working group immediately

#### 1.4 Review of March Meeting Decisions

**Decisions Taken:**
- It was agreed that recommendations need to be decisions from the Task Force now.
- JLMMS TF decisions need to be made now about ‘taking things out’ and granularity levels.

**Action Items:**
1. German CC comments to be circulated to the Task Force and Stefanie Weber’s email
2. CC submissions deserve response from the Task Force; Chair and Anneke to go through the points made and make sure that points are considered on the agenda

#### 1.4.2 March Meeting Outcomes and Finalization

**Decisions**
- Task Force decided approach to anaemia is supported. Granularity can be dealt with as we review across the classification.
- It was agreed that Notifiable Diseases cannot be detached from the ICD-11 and JLMMS; but in suitable software environments, they may be invisible to coders, and still available for national reporting.
- Dementia - It was agreed more checking is required prior to sign off. ACC will provide feedback by early next week.
- Diseases of the nervous system – JLMMS TF to review and provide feedback through WHO secretariat for the Neurology TAG with advice on what criteria are needed for the JLMMS.
- use of ‘due to’ / ‘associated with’ / secondary:
  - It was agreed that ‘due to’ equals causality and could be demonstrated using clustering;
  - Task Force will decide on definitions for these by process of agreement (yes or no). WHO secretariat to provide remaining list to JLMMS TF and March definitions to the JLMMS.
  - List of instances in the JLMMS need to be reviewed (timeline to be decided)
- Abscesses: Agreed to check section of the ACC report during update of infectious diseases chapter and after.

_March meeting decisions agreed as closed for these topics_
## Part 2 - Technical Development – Decisions Only

### 2.1 Use Cases & Chapter 4 – Chapter Overview

**Decisions Taken:**
- **Use cases:**
  - Agreed – there should be a section in the reference guide redrafted for the JLMMS case, drawing on previous use cases, and the comments from a group led by Jenny H. Working Group formed for this.

  **Chapter 4:**
  - Difference between ICD-10 and 11 paragraphs to be placed in implementation kit
  - Rationale needed for each chapter from the TAGs, editing for consistency.
  - Chapter 3 – agreed to be reorganised into a clinical view
  - High level comparison table will be useful for showing differences between ICD-10 and 11
  - Agreed – sections to be included on paediatric, primary care and rare diseases
  - Need to balance the content in the Chapter 4 between transition and longer term needs.

**Action Items:**
1. Narrative and use case groups to finalize work, especially before Manchester meeting

### 2.3 Chapter 6 – Coding Guidelines

**Decisions Taken:**
- Agreed to place sanctioning rules process in appropriate place in the reference guide, making the actual sanctioning rules visible in the JLMMS. Prioritization also required
- Robert Jakob and Lori Moskal to work together on practical coding examples for the post-procedural discussion.

**Action Items:**
- WHO to implement

### 2.4 Chapter 7 – Mortality Use Case and Rules

**Decisions Taken:**
- The Task Force agreed to use the ICD-10 2016 update, to update the chapter, and include code examples, but that a finalized document is not necessary for the Executive Board process.
- However, EB document must be good enough to be approved for review and further progress in testing.
  - TF requested from the MTAG a sequence of steps needed to update the specific mortality rules.
  - Where there are concrete decisions which can be updated in the draft, this should be undertaken immediately.
  - It was agreed that coded examples and instructions be retained in the Chapter, and replaced with ICD-11 codes when available.
- Multiple Cause:
  - Agreed to add a descriptive paragraph on multiple cause coding and a broad statement about its potential use including post-coordination, but not detail.
  - It was agreed that section 7.2 needs an added section on complexities and approach for deaths in older ages, referring to the possible use of multiple cause analysis. Bob Anderson and James Eynestone-Hinkins to assist draft. Colin Mathers from to WHO review.
- Agreed to add a descriptive paragraph on verbal autopsy and simplified ICD, referring to other documentation.

**Action Items:**
- WHO to implement

### 2.5 Morbidity Overview

**Decisions Taken:**
- Agreed to focus immediately on JLMMS as it applies to inpatient care as a defined use-case, with a view to looking at a broader focus in other areas over time;
- Agreed to develop a paragraph on the use case and its definition and its limitations (use case WG)

**Sections**
- Overall: add definition of clinical forms in Volume 2
### 2.6 Chapter Review - Infectious Diseases Chapter

**Decisions Taken:**
- Consensus that the model drawing on the Nordic example, and based on Mathers-Jakob models be agreed for immediate application by WHO in the JLMMS; that progress be referred to the JLMMS TF, with any issues referred to the TF as the changes are progressed.

**Action:** WHO to implement, referring progress and issues to the JLMMS TF

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### 2.7 Chapter Review - Diabetes Section of Endocrinology Chapter

**Decisions Taken:**
A working group formed and provided the following solution:
- Diabetes Structure in JLMMS developed to support both clinical and statistical use.
- The term ‘diabetic’ be defined for the context in which it is used.
- Stem codes in diabetes section will remain as is.
- Some issues remained:
  1. Post coordination/clustering
  2. Main condition
  3. Clinical Forms
  4. Parenting
- **Solutions**
  1. Guidelines for coding of clinical forms will be updated to state that clinical forms cannot be coded alone, but a code from clinical forms will be allowed as the main condition.
  2. Diabetic conditions and their children that currently exist will remain precoordinated and be moved into the Clinical Forms Chapter
  3. Other known conditions caused by diabetes such as Diabetic Foot and Diabetic Coma will be precoordinated and moved into the Clinical Forms chapter
  4. Clinical Forms will be the primary parent for diabetic conditions with the Endocrine and relevant body system chapters being secondary parents for diabetic conditions
  5. For diabetes ‘with’ condition i.e. no causal link will be coded out and not clustered. The condition that meets the main condition definition coded first i.e. if the manifestation is the reason for admission then the manifestation would be coded first.
  6. Where there is an explicit statement of causality within the documentation and the manifestation is the main condition, the type of diabetes would be within the cluster after the manifestation.
  7. In this instance the manifestation e.g. gastritis (not currently described as diabetic) will come from the body system chapter.
  8. If the causal relationship is expressed as due to in the documentation and a diabetic condition exists in the clinical forms chapter then there should be an explicit rule that the coder should code it to the diabetic condition e.g. retinopathy due to diabetes equals diabetic retinopathy.

- That the principles agreed to for the diabetes chapter be used consistently across the JLMMS unless this is one of the precoordinated conditions under 6.

**Action:** WHO to implement

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### 2.8 Chapter Review - Postprocedural

**Decisions Taken:**
- Guidelines for coding quality and safety issues will be updated to show that the harm is coded first, followed by the mode and mechanism
### Complications
- All complications of medical devices will be primarily parented in one group in injuries chapter
- Permanent postprocedural conditions will have precoordinated codes, but will be created sparingly
  - In one group at the end of the relevant chapter
  - Primary parent to the one group in the relevant chapter
  - Review for potential for postcoordination:
    - Terminology (e.g. dumping syndrome cannot be postcoordinated)
    - And relevance (rare ones likely could easily be postcoordinated)

### Actions
- Lori Moskal to work with the Quality and Safety TAG on the post-coordination and clustering for post-procedural complications

### 2.9 Chapter Review - Coding
#### Issues for HIV and Neoplasms
**Decisions Taken:**
- Agreed that more work needs to be done on the section on the concerns noted (Robert Jakob and Robert Chalmers)

### 2.11 National Linearizations
**Decisions Taken:**
- Agreed to have continued discussions on modifications and approach, including updating process.

### 2.12 Additional discussions

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<tr>
<th>2.12.1 Narrative</th>
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<tr>
<td><strong>Decision Taken:</strong></td>
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<tr>
<td>More work on the narrative to be undertaken for use at the Manchester meeting (James Eynestone-Hinkins and team)</td>
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<tr>
<th>2.12.2 Change of acronym – JLMMS</th>
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<tr>
<td><strong>Decision Taken:</strong></td>
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<tr>
<td>It was agreed that JLMMS continue to be used as a working title.</td>
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<th>2.12.3 Japanese CC: remaining issues</th>
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<td><strong>Decision Taken:</strong></td>
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<tr>
<td>Flattening or redesign is required, with reference to what needs to be preserved (eg. for the example given).</td>
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<td><strong>Action:</strong> WHO to implement</td>
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<th>2.12.4 Australian CC: remaining issues</th>
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<td><strong>Decision Taken:</strong></td>
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<tr>
<td>Agreed to evaluate hierarchies systematically for usage validation</td>
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<td><strong>Action:</strong> WHO to implement</td>
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<th>2.12.5 German CC: remaining Issues</th>
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<td><strong>Decision Taken:</strong></td>
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<td>WHO to make transparent the current status of the proposal mechanism</td>
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<td>Possible URC discussion at the Manchester meeting about the transition</td>
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<td><strong>Action:</strong> WHO to implement</td>
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### 2.13 Primary Care
**Decision Taken:**
- Reason for Encounter to be incorporated into the Foundation layer
- Agree to have broader concepts of ICPC into the ICD Foundation
- Need to further explore to what extent PC concepts can be applied to the JLMMS.
- Further work to be done on PC with JLMMS: Updates as work progresses to be provided to the Task Force

**Action:** WHO and WONCA, through the Primary Care Task force, to implement, referring progress and options to the JLMMS Task Force
## Part 3 – Next Steps – Decisions only

### 3.1 Testing Plan and Peer Review Strategy

**Decisions Taken:**
- Agreement on the overall phased approach and timeline for field testing. It is important to identify upfront how much of field testing is worth and essential to conduct. For doing so JLMMS TF is asked to provide feedback on the high priority areas/issue in the JLMMS and the Reference Guide. The FT activities should focus on these priority areas/issues.
- Enhance the field testing design for mortality. Main focus will be on testing manual mortality coding. Explore whether and how automated mortality coding can be incorporated in the testing.
- The review process will include peer review of content as well as horizontal TAG review of the overall JLMMS. In the spirit of “less is more” (meaning streamlined approaches are best) the “must have” review units in the JLMMS should be identified and a lean and effective management process should be put in place.

**Action Items:**
- JLMMS TF to provide feedback on priority areas of the JLMMS for testing.
- WHO and TF members to improve test design for mortality coding
- WHO to circulate a first draft of Review Manual to Task Force and TAGs with request for advice.

### 3.2 Peer Review

**Decisions Taken:**
- Transition Study should be continued expanding into additional countries beyond WHO-FIC, especially for those who would participate in the ICD Revision Conference in 2016.
- It may be useful to group countries and focus on prototypical selected countries to explore implementation issues in depth. One group should be the “information paradox countries” - those who do not currently use and report in ICD.
- Results of the Study and Technical Information to be made available for Revision Conference in 2016

**Action Items:**
- WHO will continue the Transition Study in particular in additional countries other than WHO-FIC and focus on selected samples from a stratified set of countries.
1. WHO will make the results available for Revision Conference.

### 3.3 Transition Study

**Decisions Taken:**
- Next Meeting JLMMS TF

**Decisions Taken:**
- Agreed that the JLMMS TF meeting in Manchester, closed session on Saturday evening, and an open session (focus: marketing, framed as an opportunity to participate) Sunday October 18, at the joint session for the MTAG and MbTAG.

**Action Items:**
- MTAG and MbTAG to organize closed and open joint sessions.

### 3.4 Outstanding Issues

#### 3.4.1 Next Meeting JLMMS TF

**Decisions Taken:**
- At least two JLMMS TF meetings be organised between now and Manchester meeting

**Action Items:**
- Anneke to propose WebEx meeting dates (since proposed as 21 September and 9 October)

#### 3.4.2 Remaining work and progress

**Decisions Taken:**
- WHO to develop a paper on possibilities for future decision-making affecting updating, testing and review as they impact JLMMS
- Decisions made by the group – the Task Force will be briefed on any possible changes needed to the decisions made here.

**Action Items:**
- WHO to organize papers on testing, peer review and updating be circulated to the JLMMS group for advice
Main Meeting Report

Part 1 – Introduction and Strategic Overview

The Chair opened the meeting at 9am.
- Chair noted this meeting was a rare opportunity, and also the complexity of the agenda.
- He noted that the March meeting was important, and it is just as important that this meeting brings some of the issues to closure.

Dr Ties Boerma welcomed the ICD JLMMS Task Force.
- He outlined some context for this meeting, including the external review of the ICD-11, a significant step in mapping out the way forward.
- He saw the revision as a process in Phases: Phase 1 where TAGs took lead and a number of other activities, but Phase 2 important for approval in the World Health Assembly, elevating the work of the JLMMS.
- Capacity is an important issue for WHO and the ambition of the ICD-11 as we move this forward.
- JLMMS Task Force has strong leadership with James Harrison and Stefanie Weber. This meeting forms part of the deliverables, along with WHO taking on a project manager and classification experts, and looking to the future with the testing strategy.
- A report will be prepared for the WHA Executive Board in January 2016.

1.1 Revision Review and Actions (presentation by Bedirhan Ustun)
- Beijing meeting requested the joint linearization approach and the addition of the word ‘statistical’ in the title. It will be first presented to the Executive Board of in January 2016.
- Purpose: to evolve a multi-purpose and coherent classification, including mortality, morbidity and primary care; a multilingual reference standard for scientific comparability and communication; ensuring it will perform in an electronic environment.
- The linearization is conceptualised as a subset of the foundation, with many linearization opportunities, as an extension of the JLMMS. Designed that the Foundation gets richer by updating. Linearizations can be designed from the foundation, or from the JLMMS as a reference, and most opt to reference the JLMMS.
- Linearizations show different levels of scale. Show short, intermediate, common and extension linearizations (national and speciality linearizations).
- Revision platform is multi-use, designed to support a great deal of activity.

1.2 Strategy and Planning (presentation by Anneke Schmider)
- Overview of importance of ICD to future context of health information – eg Sustainable Development Goals
- Role for cause of death in targets for Global civil registration and vital statistics agenda
- African Ministers (Feb 2015) ‘...Recognizing that the Ebola epidemic has shown that the need for death registration and real time cause-of-death information is no longer optional but critical...’
- Key areas of focus for JLMMS:
  - Meets the future needs of Member States
  - Supports a sustainable model beyond 2018
  - Improves health information beyond 2018
Project management approach includes: Content and project management to 2018; Governance, decision making and resourcing to 2018; Management, governance and decision making, resourcing beyond 2018.

Major milestones – May 2018 World Health Assembly and October 2016 Revision Conference

1.3 JLMMS Progress Overview

1.3.1 Mortality TAG – presentation by James Eynstone-Hinkins

- JLMMS TF was advised that Sam Notzon was stepping down as co-chair of the Mortality TAG.
- The role of the horizontal TAGs is to ensure ICD-11 is fit for purpose. Challenges are around resourcing, the same around the world as at WHO.
- With a project plan this tight, TF do need to be responsive and need to think about how we do this.
- Broader WHO-FIC Network is the major resource; we need to be able to represent the international views. Difficult but support for building the business cases, need to make the best use of time, definitions and good frameworks are needed to field testing
- We can attract additional people by building a stronger narrative about what this group is doing and how it is progressing. Discussions around uses cases are critical, as is describing how the JLMMS is shaping up.
- Need to show the value proposition on ICD-11. Language is critical. Collaboration between WHO and TAGs is important – TAGS will assist, and WHO will assist. Collaboration between WHO and national agencies.
- Governance is critical; this group should be in a position to make good decisions. Clear fitness for purpose, but need to discuss the role of this group.
- TAG intends to assist the WHO in finalising the JLMMS – ensure we can work together as much as possible.

1.3.2 Morbidity TAG – presentation by Donna Pickett

**Key discussion points:**

- Limited resources are available - MbTAG membership is shared with the JLMMS. Need a workplan to bring together a workplan for TAGs, JLMMS and RSG-SEG. Sometimes appear to be working at cross purposes
- MbTAG has conducted five meetings since March.
- Resources a challenge; need to be efficient and working together.
- Some areas still need to be resolved – especially definitions where there are some issues unresolved. Use case is also a challenge, for multiple use cases.
- Encourage collaborative work to be able to bring together these elements. Workplan by the end of the meeting would be helpful.

**Chair summary:** Governance and decision-making will be critical to moving forward. Some may be unhappy with decisions, however, decision-making is important to efficiency and effectiveness.

**Key Discussion Points:**

- Need consistent statement about why joint linearization decision was taken. This decision forces clarity between morbidity and mortality.
- Obstacles to WHA include the engagement and endorsement of the statisticians, and Mortality TAG has a critical role to play. Statisticians meet in March each year and are an important constituent.
‘Finalization’ – when in doubt, simplify should be the principle.

Need a common understanding of the JLLMS use case. Even in this Task Force, there are differing views about what it should be.

Time is an issue. Term ‘joint’ may have different complexions – it can apply broadly, or in a more limited sense.

Need to ensure WHO-FIC network is aware of what the JLMMS is – must bring WHO-FIC in.

Governance – how will decision-making be defined, and how those decisions are made and kept. Some issues taken back to the vertical TAGs. We don’t have enough time to keep going around in circles.

Need a good narrative about the ICD-11 and the morbidity use case. ‘Jointness’ needs to be considered and perhaps considering in the context of Primary Care.

WHO: statement about why JLMMS was agreed is in paper 3. Could use the word ‘complete’ rather than finalize. ‘Joint’ refers to common use of precoordinated stem codes between morbidity and mortality. Transition study presentations will overview of country use and updating. Governance – JLMMS completion is in the full advisory decision of the Task Force, some speciality TAGs may make requests for inclusion. RSG-SEG will resolve issues.

Decisions Taken:
- Progress a paper during the week to better articulate the narrative and core properties of the Joint Linearization

Action Items:
- Need to further progress the narrative and core properties of the ‘joint’ linearization, people who spoke to contribute to a review of the Bedirhan Ustun paper, and have revision by the end of the week. (James E-H to lead)
- James EH will continue to work on the paper – small working group formed to progress immediately
- Jenny H to progress use case document with small working group immediately

1.3.3 Traditional Medicine

Key discussion points:

- TM an increasingly integrated approach in WHO work, increase in demand for TM. In health information, there is a lack of support.
- Chapter does not constitute an endorsement of TM practice, but it provides a framework for supporting collection of information.
- TM is built on existing classifications in China, Japan, Korea and many other countries
- Chapter to have a field test, review process, harmonization of terminology and translation and linguistic evaluation.
- Advice required:
  - Integration of coding rules for JLMMS – eg used for morbidity coding only; double coding; using TM as a standalone chapter; using with other chapters of the ICD-11 JLMMS.
  - Close communication and narrative with Member States is essential, many have experience with TM, many may not.

Key Discussion Points:
• How does TM fit with JLMMS? Foundation, primary care focus? At present, TM sits within JLMMS as a chapter. Further extension / specialization will need to have a use case if further granularity is required. At present foundation concords with the TM Chapter.
• Narrative needs to include a clear statement about what TM is, and how it is placed in the JLMMS.
• Example of issues with ‘chest pain’ in TM and JLMMS.

1.3.4 Primary Care

Key discussion points:
• Work still on going, needs to be reconciled with the JLMMS process. Have completed work on gaps and evidence
• Three separate linearizations proposed – high resource, intermediate and low resource
• Information model – patient view, care provider view. Use case – clinically oriented, input from episode and encounter, uses morbidity coding scheme, need to define list of common denominators.
• Based on various data collections. There is a gap with a lack of information in low resource settings. Include some initial analysis of entities, telescoping etc.
• Vertical TAGs also consulted.
• Comparison showed some missing elements in the JLMMS that required reinstatement, and some issues in the Primary Care.
• Some issues include: diagnostic certainty – differing certainty and process.
• Long history of work with Primary Care stakeholders, have formalised a PC Task Force in 2015.
• Next – review process to continue and later session on Thursday will cover JLMMS advisory needed

1.4 Review of March Meeting Decisions

1.4.1 Roundtable Updates

Key discussion points:
• German CC: conducted workshop to review achievements in the past year; discussions about a more systemic review, and discussion about content on the second day. Feedback included: understanding of the JLMMS – terminology regarding foundation and the application into the future is no clear. Recommend the better explain the meaning of the foundation and linearization, and the decisions on content and structure that have been made, and what the use case for the JLMMS says, and pre- post coordination and multiple parenting. Issues with the foundation and the linearization. Concepts missing in the JLMMS which are in the foundation – this is frustrating and there is a misunderstanding about where to look and where concepts are and the concept of the shoreline not well understood. Need to restructure (complications) and still many issues between ICD-10 and ICD-11. Need to revise diabetes as part of the linearization. Multi parenting issues in the sleep and disorder chapter. TO DO:
  o Clean up the architecture;
  o Review and define what is needed for mortality;
  o Pre- and post-coordination needs to be cleaned up;
  o Look at rare diseases and their placement in the JLMMS.
• **Japanese CC**: would like for this week’s meeting for JLMMS more understandable to those that don’t know ICD-11, and for old ICD-10 users. Some places are too detailed. Should be more balanced. Need user friendly coding, and a user friendly physician interface for better information and data. Changes need to be explained more clearly. Revision will be a big change and would like to hand it over to the next generation.

• **Nordic CC**: reviewed infectious disease chapter. Noted incomplete areas, and the order in general needs review (eg alphabetic order and wording). Order and principle should serve the primary users in the clinic to get correct coding. Some concepts are not explained well or placed for mortality as well as morbidity coding perspectives. Foundation layer may have some errors, some losses in infectious diseases.

• **Australian CC** –
  - Paper contains the detail of the review.
  - Some overall issues found – greyed in boxes.
  - Overall comment – group representative of both morbidity and mortality.
  - Congratulations to WHO for moving so far forward with the JLMMS.
  - Compromise, good governance and decision making will take it forward.
  - Still some structural issues, need to apply consistently.
  - Simplicity is the ultimate sophistication (Leonardo da Vinci).
  - Specificity for specialty linearization, inconsistency across chapters cannot be the way for the JLMMS.
  - Linkage codes needed for stem-stem and stem to chapter consistently.

• **Australian CC** – stakeholder discussions. (Jenny Hargreaves)
  - Have had some success in explaining ICD-11 in explaining scientific updates, and the quality and safety benefits in ICD-11.
  - Offered congratulations to WHO on work to date.
  - Link between morbidity use case and national modifications is needed.
  - keen to ensure the JLMMS is fit for purpose, and to be involved in the field trials

**Noted by WHO Secretariat:**

• Review and narrative from user / data collection perspective across complex perspectives is necessary – collection perspective should support better and more intuitive data collection

• Narrative needs to cover complex and new concepts for various audiences – countries, policy level, statistical level, specialized audiences. Foundation, linearization, etc. EB and WHA. EB paper and for other audience, complex topics will have to be covered and a single narrative will assist with the consistent discussion. Clarity is important.

• JLMMS and speciality linearizations – how to take recommendations about development of speciality linearizations and their management from the JLMMS? (within resources)

**Chair**: noted extremely pressing deadlines, complex problems, and limited resources. Compromises will be important.

**Ties Boerma**: testing needs to be a very clear, tight plan. Recommendations need to cater for what secretariat can do.

**Points following**

- Australian CC has some work available to assist with narrative.
- Task force must respond to the work which has been undertaken.
- Dot point issues list is needed in order to be responsive to issues
- Recommendations need to be decisions from the Task Force now. JLMMS TF decisions need to be made now about taking things out and granularity.
• Clinical input is a great benefit but JLMMS has to be fit for purpose for mortality and morbidity purposes. Need to make decisions about in out what to take JLMMS – we do not want poor quality coding because of granularity. Digital product may make it easier to make decisions about what is in and out for JLMMS and speciality. Clear rationale needed about why things are in foundation, not in JLMMS eg for statistical purposes.
• JLMMS is for statistics. Concerns of the vertical TAGs could be addressed through Foundation and post-coordination narrative, and rationale for changes needs to be communicated back to the TAGs.
• Evidence base is needed for making decisions about what is included in the JLMMS. Must be informed by statistical uses of the JLMMS.

Decisions Taken:
• It was agreed that recommendations need to be decisions from the Task Force now.
• JLMMS TF decisions need to be made now about ‘taking things out’ and granularity levels.

Action Items:
• German CC comments to be circulated to the Task Force. and Stefanie Weber’s email
• CC submissions deserve response from the Task Force; Chair and Anneke to go through the points made and make sure that points are considered on the agenda

1.4.2 March Meeting Outcomes and Finalization

Key Discussion Points:
Remaining issues:
• Anaemia – close a decision about how it is structured in the JLMMS? ACC feedback is that too much detail for the JLMMS and needs simplification. Task Force decided approach to anaemia is supported. Granularity can be dealt with as we review across the classification.
• Pneumonia – no decision required, but for noting. But it may come up with the infectious diseases discussion.
• WHO Notifiable Diseases - IHR list must be included in the ICD. It was agreed that Notifiable diseases cannot be detached from the ICD-11 and JLMMS; but in suitable software environments, they may be invisible to coders, but used for national reporting. For discussion.
• Dementia – decisions made by the JLMMS and RSG-SEG, some concerns from the Neurology TAG. Certain aspects can go to the specialization. Proposal is received and in iCAT. It was agreed more checking is required prior to sign off. ACC will provide feedback by Friday
• Diseases of the Nervous System – ACC feedback is that it is uneven. Consider whether parent is viewed, or children viewed, and what is appropriate for the JLMMS. Proposed that JLMMS will feedback to neurology TAG that the chapter is more detailed than required for the Linearization. Relies on shoreline decisions and criteria. Criteria may need to be reviewed. Level of pre-coordinated concepts is also high. Agreed – WHO secretariat to provide the relevant criteria, so it can be reviewed, and passed back to vertical TAG with advice on what categories are needed for the JLMMS.
• Use of ‘secondary’ / ‘due to’ / ‘associated with’ /– Needs a consistent decision to be made that is applied across the classification. There are previous papers on this provided on ICD-10. Systematic check undertaken on the ICD-11 and a small ‘exception’ list remains. Needs description which gives meaning to these terms for these elements in the classification, which is important to translation. Agreed:
- **WHO-SEC** to provide remaining list to JLMMS TF and March definitions to the JLMMS morning.

- **Abscesses**: list circulated, which must be discussed and decision finalised. Agreed to wait until infectious diseases before a decision made.

- **Drug classification in JLMMS**: briefly discussed in the March meeting and raised by Dr Chalmers in the RSG-SEG. Quality and safety have a four point construct. Suitable for post-coordination? Question as to how to classify drugs in a meaningful way for the JLMMS in the post-coordination construct. Mortality would like to be able to see a greater visibility of drugs than was possible in ICD-10 – and so where we are discussing this as part of post-coordination, this will be difficult. Could encourage an approach which promotes precoordinated status for certain important drugs.

<table>
<thead>
<tr>
<th>Decisions</th>
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<tbody>
<tr>
<td>- Task Force decided approach to anaemia is supported. Granularity can be dealt with as we review across the classification.</td>
</tr>
<tr>
<td>- It was agreed that Notifiable Diseases cannot be detached from the ICD-11 and JLMMS; but in suitable software environments, they may be invisible to coders, and still available for national reporting.</td>
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<tr>
<td>- Dementia - It was agreed more checking is required prior to sign off. ACC will provide feedback by early next week.</td>
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<tr>
<td>- Diseases of the nervous system – JLMMS TF to review and provide feedback through WHO secretariat for the Neurology TAG with advice on what criteria are needed for the JLMMS.</td>
</tr>
<tr>
<td>- use of ‘due to’ / ‘associated with’ / ‘secondary’ :</td>
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<td>- it was agreed that ‘due to’ equals causality and could be demonstrated using clustering;</td>
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<tr>
<td>- Task Force will decide on definitions for these by process of agreement (yes or no). WHO secretariat to provide remaining list to JLMMS TF and March definitions to the JLMMS.</td>
</tr>
<tr>
<td>- List of instances in the JLMMS need to be reviewed (timeline to be decided)</td>
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</tbody>
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- **Abscesses**: Agreed to check section of the ACC report during update of infectious diseases chapter and after.

**March meeting decisions agreed as closed for these topics**
Part 2 – Technical Development

2.1 Use Cases & Chapter 4 – Chapter Overview

Key discussion points:

Use cases:
- Designed in 2008, formulated in detail, but require review in current context.
- Use cases are mix of purpose and IT
- Use cases – public health surveillance (mortality and morbidity) and clinical administrative data (morbidity – reimbursements and clinical data aggregations)
- Questions – do we need more detail in use cases? Should this be a separate section in the reference guide?

Key Discussion Points:
- Audience – a place for the uses which can be made for ICD data. Data is a by-product of care delivery.
- Document written in 2008, for broader ICD, needs to be reconsidered within context of JLMMS
- Removing aspects of the use case may have broader implications. Need to look to the implications of changing the use case.
- Important for the JLMMS to come to a common understanding of what use cases will be served by the JLMMS.
- Countries have many more demands placed on JLMMS, especially in terms of demand. Considerations of morbidity and its broad needs are necessary.
- Real time data demands will be placed on the JLMMS into the future
- Demands will continue to be placed for specificity and clarity; and there is a clear need to be made on national and international needs.
- What are the key classification aspects of this use cases which are necessary. Overarching use case is the statistical use. Use cases for DRGs etc will have different elements. Paper to be redrafted and shaped using ‘how to use coded data’.
- Agreed – there should be a section in the reference guide redrafted to suit JLMMS.

Chapter 4 –
- There is variance in codable categories per chapter.
- Exclusions notes have been progressed, and will be added.
- Rationales need review – some instances have no rationale, some contain of definitions, some have too much detail
- Note: Neoplasms chapter must be checked, full chapter review and definitions need to be put in a standard format
- Guard against putting too much process detail in this document. Some things may change.
- Differences between ICD-10 and 11 could be taken out, and placed somewhere (implementation kit) specifically for the changeover between 10 and 11.
- Rationale – could be placed reference elsewhere, but is important to be placed in the reference guide
- Ch 4 – immunology has not been reviewed by an immunologist
- Ch 21 – requires more work as per ACC advice
- Ch 23 - change with ‘intent’ at the top of the hierarchy
Decisions Taken:

Use cases:
• Agreed – there should be a section in the reference guide redrafted for the JLMMS case, drawing on previous use cases, and the comments from a group led by Jenny H. Working Group formed for this.

Chapter 4:
• Difference between ICD-10 and 11 paragraphs to be placed in implementation kit
• Rationale needed for each chapter from the TAGs, editing for consistency.
• Chapter 3 – agreed to be reorganised into a clinical view
• High level comparison table will be useful for showing differences between ICD-10 and 11
• Agreed – sections to be included on paediatric, primary care and rare diseases
• Need to balance the content in the Chapter 4 between transition and longer term needs.

Action Items:
• Narrative and use case groups to finalize work, especially before Manchester meeting

2.2 Sanctioning, Pre and Post-Coordination

Key discussion points:
• Single code structure - agreed to morbidity to share a pre-coordinated structure with mortality. Post coordination is possible. The risk that post coordination codes may not be used or applied (an issue for testing). Pre-coordination trumps the post coordination options.
• Significant discussions about primacy in coding, operation of the rules and construct. Default to post-coordination except where pre-coordination is defined and necessary. Need a process to handle these. Need to consider that more rules, more complexity.
• Need to move from the gaps and weaknesses and examples, to the framework and construct so as to be broadly useful moving forward.

2.3 Chapter 6 – Coding Guidelines

Key discussion points:
• Coding guidelines – discussed other elements in the chapters (extension codes, definition of stem and extension)
• Sanctioning rules – decision needed on where to place.
• Perhaps note that sanctioning rules are incomplete – they are still an essential component of JLMMS. Should be visible. Perhaps in the classification itself. Reference guide to describe the process and the reference the database which contains the sanctioning rules.
• Extension codes and clinical forms are also priorities.
• Possible practical guide needed with worked examples.
• Example provided of how the Australia has developed and maintained, with an emphasis on reducing complexity over time.
• Principle that the rules built into the system as much as possible, reference guide to overview.
• Need for some basic coding advice in the reference guide.
• Although there was a lot of discussion on pre- and post-coordination and sanctioning, there was no change previously agreed.
• This discussion was trying to get resolution on what should be coded as the main condition. Given that the definition of main condition is the reason for admission after study, and given that the dagger/asterisk principle has been removed, there is no guideline preventing users from coding a manifestation or complication as the main condition. This was discussed with the topic of diabetes in mind.

**Decisions Taken:**
- Agreed to place sanctioning rules process in appropriate place in the reference guide, making the actual sanctioning rules visible in the JLMMS. Prioritization also required
- Robert J and Lori Moskal to work together on practical coding examples for the post-procedural discussion.

**Action Items:**
- WHO to implement

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**2.4 Chapter 7 – Mortality Use Case and Rules**

**Key discussion points:**
• Mortality use case – public health surveillance, developed with the joint case in mind, but not in the context of the Foundation layer.
• Process for mortality information includes a range of actors and a sequential process
• Mortality coding rules identical with ICD-10 2016, clarifying coding steps
• Overview of Chapter 7 sections provided.
• Discussion regarding the impact of the increasing number of deaths at older ages, and whether the underlying cause construct is applicable.
• There is an opportunity to add information on multiple cause coding possibilities given post-coordination options.(Stefanie Weber)
Decisions Taken:
- The Task Force agreed to use the ICD-10 2016 update, to update the chapter, and include code examples, but that a finalized document is not necessary for the Executive Board process.
- However, EB document must be good enough to be approved for review and further progress in testing.
  - TF requested from the MTAG a sequence of steps needed to update the specific mortality rules.
  - Where there are concrete decisions which can be updated in the draft, this should be undertaken immediately.
  - It was agreed that coded examples and instructions be retained in the Chapter, and replaced with ICD-11 codes when available.
- Multiple Cause:
  - Agreed to add a descriptive paragraph on multiple cause coding and a broad statement about its potential use including post-coordination, but not detail.
  - It was agreed that section 7.2 needs an added section on complexities and approach for deaths in older ages, referring to the possible use of multiple cause analysis. Bob Anderson and James Eynestone-Hinkins to assist draft. Colin Mathers from to WHO review.
- Agreed to add a descriptive paragraph on verbal autopsy and simplified ICD, referring to other documentation.

Action Items:
- WHO to implement

2.5 Morbidity Overview

Use Case

Key discussion points:
- General agreement on morbidity use cases
- principle – document once, use multiple times
- some differences exist with PC, Quality and safety
- rules based on inpatient main patient diagnosis
- Discussion:
  - International coding rules for morbidity are based on inpatient coding, but this is not always the case (eg Germany). To what extent should they be constraining country coding – countries are coding in other contexts. To release this constraint, it may become much easier to report internationally.
  - Need to focus on how to code, and then define primary and secondary uses after coding. Code once, use multiple times. Quality and safety becomes part of construct of morbidity code.
  - Primary Care – reason for encounter. Not something for the ICD. Diagnostic statement. For discussion in later session.

Significant discussion on shifting contexts for morbidity collection:
• Differences between inpatient and outpatient may be diminishing and over time we will need to think more about applications to episodes of care.
• There is a broader shift to activity based funding in multiple settings.
• It is important to note that **encounter-based and episode-based assumptions** are different. (Proposal from Bedirhan to put RFE in extension codes).
• Comparable statistics may be best generated in the first instance in an admitted patient setting.
• Morbidity is an inherently pluralistic construct. eg In patient definitions are not agreed

**Main Points:**

• Need to stay non-prescriptive for broader application in an ever changing environment.
• Main diagnosis remains appropriate basis, but we need to remain cognizant of broader environment.
• Population health data should focus on episode of care.

8.2 –

• ACC noted that there is repetition within the document. there is an advantage in referencing to earlier sections

8.2.2

• possible conflict in second paragraph with agreed focus and definition of main diagnosis/condition in the use case. Decision needed where multiple conditions are recorded. Avoid path about most resource intensive episode
• MRG have an agreement on this from 2011. (Need to refer). Assignment of main diagnosis / condition should be recorded independently of financing decisions. Language in this section needs to be carefully selected.
• These rules are meant for international application and reporting, financing approaches are country decisions for implementation.
• Discussion on previous agreements on this wording.
• Purpose of the section is to provide package of information in order to make a coding decision.
• Note ICD11 will have a feature where added information is retained piece of data.
• Last paragraph, page 4 – raises additional issues not necessarily related to main condition / diagnosis, including manifestations, quality and safety and additional detail. Needs revision. To be discussed

8.2.2.1 – to be discussed in diabetes chapter

• Review of clinical forms understanding is required throughout the chapter. Example might be required for a code from the clinical forms.

8.2.2.2

• Example 6 – ‘ruled out’. Not clear how example 6 should be coded. Important to code what is known. Concerns about coding on symptom.
• Discussion on issues with rules being shaped for reimbursement purposes.
• Problem with interpreting statistics if there is a ruled out code.
Decisions Taken:

Use Case
- Agreed to focus immediately on JLMMS as it applies to inpatient care as a defined use-case, with a view to looking at a broader focus in other areas over time;
- Agreed to develop a paragraph on the use case and its definition and its limitations (use case WG)

Sections
- Overall: add definition of clinical forms in Volume 2

8.2.2
- Recommendation to edit section to reflect agreement of the use case to focus on main diagnosis / condition.
- Para 4 requires particular focus on relevant concepts.
- The term ‘ruled out’ – including the ‘d’ was agreed.
- ‘Near misses’ flag not required
- Many examples need to be reviewed after the diabetes discussions. For discussion in diabetes chapter, for example:
  - Last paragraph on page 4 (section 8.2.2) to have a proposed solution agreed as part of the diabetes discussion, and wording to be refined before the end of the week.
  - 8.2.2.1 – to be discussed in the diabetes chapter (and requires renumbering)

8.2.2.2
- ‘Ruled Out’ – agreed to code main condition / diagnosis / symptom rather than what has been excluded.

8.2.2.3
- Coding the multiple conditions – to be kept specific, code multiple conditions rather than have one code for multiple conditions. Delete references to specialities. Confirm examples. Add sentence ‘do not apply’ ....

8.2.2.4
- Coding of combination categories – agreed that the examples need review to ensure they are combination codes, including a precoordinated code example.

8.2.2.5
- External causes and quality and safety – will be ‘merged’ with 8.3.3.5. Requires a better explanation of external cause coding, which recognises fundamental differences in reporting compared to mortality. Quality and safety TAG to verify T80-88 and how it is structured in JLMMS. Task Force will request this from TAG. Statement needed about countries which can only capture one code.

8.2.2.6
- Sequelae section – need to review sequelae in ICD11 (ACC to review), including possible inclusion in the X chapter. Add sentence to encourage coding to the main condition / diagnosis rather than the sequelae.

8.2.2.7
- Acute- chronic - agree where appropriate acute comes first, two examples to be provided – one clustered.

8.2.2.8
- Post-procedural – dealt with in later session.

8.2.2.9
- Rules for reselection (and other elements) should be relocated forward to where main
condition is defined, with examples located with the rules. Section to be edited. Defining main condition to RFAAES, put together in one place.

8.2.3.

- Chapter specific notes – nervous system codes need review. Eye and adnexa codes to be adjusted. Example 26 needs to be updated. Chapter 18 – Pregnancy – codes to be updated.
- Status of chapter 24 will remain as not mandatory. Part may be informed by diabetes session today. New ICD-11 chapters may need to be reflected. Consider scope of the chapter in relation to JLMMS.
- Richard Madden to provide advice on instructions for chapter 24 before end of the meeting.
- More detail and specificity is preferred for Chapter 18, and should be recommended.
- Chapters may require review for consistency and particularly for post-coordination, however post-coordination review is risky for Chapter 18. Requires prioritization for 2015.
- Multiple injuries wording to be aligned with national modifications

8.3 Special Cases

- Robert Jakob to review section for coding, based on previous decisions

*Action Items:* WHO to Implement

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2.6 **Chapter Review - Infectious Diseases Chapter**

**Key discussion points:**

**Nordic presentation**

- Review of ID chapter concerned at practicability of the proposed structure. ref Nordic papers (document 10 of agenda papers). Infectious diseases are complex, potentially impracticable, certain ID practicable, all ID a in the chapter are not.
- Hard to define which diseases should be included as ‘certain’.

**Bedirhan Ustun presentation**

- ID approach has been underway for quite some time. Reviewed organization of current ICD10 chapters. There were difficulties found in organizing these in the ICD-11, including lack of representation of important infections.
- Decision made to reorganisation into a new infectious diseases chapter. Sorting order became an issue. How to decide on inclusion of major clinical entities – legacy from ICD10, and including risk.
- Organization proposed
  - by infectious agent as well as grouping by clinical understanding;
  - infectious disease groupings by epidemiological purposes.

**Colin Mathers / Robert Jakob presentation**

- Colin reviewed from perspective of the use of global mortality statistics. Aware of limitations of previous editions of ICD. Reviewed from the perspective of countries which can classify well, and those which code to a lesser quality.
- Having classification which reflects reporting needs will minimise the many issues encountered in global reporting. Need to also service high resource and low resource settings.
• Main argument that chapter should be organised at disease groupings and entities, second level specific disease entities, third level by agent.
• Propose small group to agree on new outline this week; rearrange 6-8 weeks; last edits by 30 November

Key Discussion Points:
• Seeming consensus that organization for epidemiological purposes is important for this group. Question remains as to whether entities need to be moved to organ specific chapters. Black ink should be the condition (e.g. bronchitis), and not the organism.
• German review of the infectious papers – can be provided in a short period of time (next 3 weeks) as further information to the process.
• Broad direction of CM/RJ paper is supported, care to be taken with moving entities to organ specific chapters. Focus on aspects in papers as described (zoonotic etc). Care taken with vaccine preventable, consider blood born.
• Support for epi and clinical view, also capturing infectious diseases, so to create future tabulations. More granular view can be used in higher resource settings.
• Need to consider possibilities to draw in others around this discussion, after November 2015, perhaps more consultation can be undertaken.
• Further problems identified from ICD-10: may create a break with ICD-10, and some growth in some categories is possible. Either way there will be change from ICD-10, and this needs to be identified. Which view is being promoted – epi, or agent / clinical. Approaches can both be tested in testing strategy.
• Group has agreed to remove multiple views (eg blood)
• Proposal is to order the chapter by disease grouping to create an exclusive list. Proposal is to move respiratory diseases into the chapter. (Nordic proposal is to move local infections back to other chapters, but retain parenting in the foundation layer to enable other views)
• Developing country likely reaction: might opt to adopt the model with the least differences to ICD-10. Changes in infectious diseases chapter have major political implications in country, major burden of disease in countries. This is a consideration for World Health Assembly. Movement into the chapter, countries will need to be well briefed on the movement, for example bridging studies (eg Pneumonia may increase mortality relevant to the new chapter).
• Need to make sure that parenting is retained as entities are moved.
• How to take comments on the chapter – potent to look at problems in this chapter and others later in the process.
• Several reviews now support a common model, represents a solution to take forward. Later processes will cover any issues.
• Need to consider some duplication within the chapter.
• May need to test this in a special fashion.
• Linkages to be retained in the foundation, but invisible to JLMMS coder view.

Decisions Taken:
• Consensus that the model drawing on the Nordic example, and based on Mathers-Jakob models be agreed for immediate application by WHO in the JLMMS; that progress be referred to the JLMMS TF, with any issues referred to the TF as the changes are progressed.

Action: WHO to implement, referring progress and issues to the JLMMS TF.
2.7 Chapter Review - Diabetes Section of Endocrinology Chapter

Key discussion points:
- Feedback from March meeting about the Diabetes Chapter
- Two possible solutions – pre-coordination of complications, post-coordination of complications
- Key questions – requirement for single coding, and necessity of pre-coordination of complication to mortality information.
- Proposal: post-coordinate a separate list of complications.

Discussion
- Model doesn’t represent simplifying diabetes. Need to identify whether they belong in clinical forms, could potentially stem-stem, or stem-X chapter. Need to simplify.
- Model solution is appropriate, addressing concerns from the March meeting of non-mutually exclusive coding
- Brilliant improvement on what has been previously. QUOTE from Robert Chalmers. Retinopathy should be under eye disease, as it is an eye disease.
- May lead to redundant coding. Don’t see the need for the clinical forms coding. How to explain cause and manifestation consistently.
- Concern for mortality coding – where would we index diabetic retinopathy?
- Request that there is assurance that diabetes model in the JLMMS is the same as any other complex condition. (answer: yes, it is the same approach, with exception of anatomy)
- Other issues need to be addressed which are separate to Diabetes model eg construct and arrangement of clinical forms needs to be reviewed.
- Dagger asterisk issue has been addressed systematically in previous JLMMS development.
- Look at solutions implemented in HIV and cystic fibrosis

Day 3 discussion:
- The debate is where do complications come from, and how do we deal with them (debate on clinical forms) –
  - need to agree on how diabetes itself is placed; and then
  - how complications related to diabetes are coded; and
  - how clustering of unrelated complications can occur.
- Principle should apply across the classification, not just for diabetes
- Example was provided by Chris Chute – clustering (for discussion)
- Have not come to a generic decision on ordering previously possible on the dagger asterisk eg:
  - Things that had a pairing in a dagger asterisk, would be treated as a clinical form, which cannot be coded as main condition.
- Not clear as to why proposals to draw from clinical forms, clustered stem codes should be drawn from chapters. Should not use coding scheme which creates a redundancy (eg where diabetes becomes redundant.)
- Example means there is multiple cluster / extension codes.
- There should be no post coordination within post coordination. cluster codes should only apply to main condition.
- need to understand distinction using evidence base
  - diabetes due to nephropathy (related)
  - diabetes with nephropathy (not related)
- modification of elements of the cluster - application of grade (eg grade 4) – must be related to main condition (head element)
- Problem is the subset of circumstances where second condition is due to the diabetes.
• Vera: stem to stem, post-coordinating two conditions (DM with retinopathy and nephropathy). Is post coordination of other conditions with nephropathy possible?

• Chris Chute two issues:
  o First: that main condition is coded first, with manifestations, this is a statistical construct, assists with ordering. (order can be switched for morbidity)
  o Sometimes manifestations can have other connections.

• Morbidity expectation that ICD be more flexible, and require specificity is required for the manifestations.
• Need to consider the danger of having the retinopathy example at different levels in the coding, reducing correspondence. These could be options to fail.
• Issue is the complexity of the condition.
• still not full clarity on clustering and how it is used
• use case: how to service both needs of the data – service event and statistics - mortality OK, however, what is required for morbidity (statistically speaking)
• how to not lose the links between important causal relationships (diabetes and its complications)
• Need to think about this more broadly in relation to other conditions which have manifestations. HIV / diabetes /and especially in acute admitted setting eg treatment for manifestation, then how are these clustered with main condition.
• Need to focus on main diagnosis – need to address whether statistical outputs can be generated for complicated conditions from the linearization. More complicated approaches means that it becomes more resource intensive.
• Principles: should work for all conditions, and work for a general solution, then manage the exceptions (don’t shape from the exceptions)
• Whilst simplifying the codeset, we are complicating the rule set. Precoordinate the manifestations will suit morbidity and mortality needs.
• Tension in morbidity, as use moved from statistics to clinical. Need to consider how changes impact the statistics.
• This is a proof of the concept we have with ICD-11. The merit of the specificity is valuable to clinicians. There are risks of miscoding, or we increase the complexity of the coding. Need a careful decision.

FROM THIS SESSION, SOME PRINCIPLES WERE NOTED:
• There is a preference not to proliferate complexity within the JLMMS
• Backward comparability to ICD10 is preferred, but not exclusively, especially when it concerns evolution in health science knowledge
• When looking at conjoined and compound constructs, ‘due to’ implies causality.
Decision Taken:
A working group formed and provided the following solution:

- Diabetes Structure in JLMMS developed to support both clinical and statistical use.
- The term ‘diabetic’ be defined for the context in which it is used.
- Stem codes in diabetes section will remain as is.
- Some issues remained:
  - Post coordination/clustering
  - Main condition
  - Clinical Forms
  - Parenting
- Solutions
  i. Guidelines for coding of clinical forms will be updated to state that clinical forms cannot be coded alone, but a code from clinical forms will be allowed as the main condition.
  ii. Diabetic conditions and their children that currently exist will remain precoordinated and be moved into the Clinical Forms Chapter
  iii. Other known conditions caused by diabetes such as Diabetic Foot and Diabetic Coma will be precoordinated and moved into the Clinical Forms chapter
  iv. Clinical Forms will be the primary parent for diabetic conditions with the Endocrine and relevant body system chapters being secondary parents for diabetic conditions
  v. For diabetes ‘with’ condition i.e. no causal link will be coded out and not clustered. The condition that meets the main condition definition coded first i.e. if the manifestation is the reason for admission then the manifestation would be coded first.
  vi. Where there is an explicit statement of causality within the documentation and the manifestation is the main condition, the type of diabetes would be within the cluster after the manifestation. In this instance the manifestation e.g. gastritis (not currently described as diabetic) will come from the body system chapter.
  vii. If the causal relationship is expressed as due to in the documentation and a diabetic condition exists in the clinical forms chapter then there should be an explicit rule that the coder should code it to the diabetic condition e.g. retinopathy due to diabetes equals diabetic retinopathy.
- That the principles agreed to for the diabetes chapter be used consistently across the JLMMS unless this is one of the precoordinated conditions under 6.

Action: WHO to implement

2.8 Chapter Review - Postprocedural Complications

Key discussion points:
- ICD-10 issues – consistent problems in coding consistency for post-procedural complications.
- The needs moving forward: medications, procedures, devices
- Decisions from March meeting noted that all conditions which could not have occurred without intervention should be coded in one place
- Queries:
  - Should a post procedural complication section be created within each chapter?
Where should primary parent for complications due devices be in the JLMMS? Injuries chapter?

Examples where post procedural conditions appear to be duplicative, are they clinically different?

- General agreement that post procedural issues should just be post coordinated consistently
- There are concerns with definition of post procedural, and will that definition help to represent this issue in ICD11. Defining ‘post procedure’ and ‘peri procedure’ will be important.
- Need worked examples of options
- Return to principles for injuries and its treatment in ICD11

Decisions Taken:

- Guidelines for coding quality and safety issues will be updated to show that the harm is coded first, followed by the mode and mechanism
- All complications of medical devices will be primarily parented in one group in injuries chapter
- Permanent postprocedural conditions will have precoordinated codes, but will be created sparingly
  - In one group at the end of the relevant chapter
  - Primary parent to the one group in the relevant chapter
  - Review for potential for postcoordination:
    - Terminology (e.g. dumping syndrome cannot be postcoordinated)
    - And relevance (rare ones likely could easily be postcoordinated)

Actions

- Lori to work with the Quality and Safety TAG on the post-coordination and clustering for post-procedural complications

2.9 Chapter Review - Coding Issues for HIV and Neoplasms

Several issues were noted by Dr Chalmers in the current JLMMS construct in relation to this issue, as noted in his paper.

Decisions Taken:

- Agreed that more work needs to be done on the section on the concerns noted (Robert Jakob and Robert Chalmers)

2.10 Index, Browser, and Coding Tool Updates

Key discussion points:

- Availability of the tool
- Roll out of the tool
- Future work:
post coordination functionality
multi lingual coding tool
enhancing content – coverage check, report missing terms
browser functionality will be enhanced.

2.11 National Linearizations

Key discussion points:
Bedirhan Ustun Presentation:
- National linearizations discussion also applies largely to specialty linearizations
- National linearizations and specialty linearizations represent level 4 codes (JLMMS is level 3)
- Background items: stem codes, sanctioning rules
- Countries who adopt ICD-11 use it:
  - ‘as is’
  - as a National Linearization where extension components are in the foundation (or added to the foundation)
- Specialty linearizations:
  - take JLMMS and extend it
  - may draw direct from the foundation (‘research linearizations’)
- New codes should be reported to WHO for inclusion in the foundation; duplicates should not be created; may vary from extension codes, (but should not roll up to unspecified Z); additional codes which affect JLMMS must pass through governance processes (RSG-SEG / URC). Primary parenting cannot be changed, and sanctioning rules cannot be violated.
- Copyright and IP regulated by Member States and WHO in a regulated way. For research purposes it will be free (as an international pubic good), but is regulated for commercial use (national modifications). MS entitled to use the foundation component, benefit from scientific updates, updating mechanism, linkage to standard terminologies.

Australia:
- need to think about linearization rule, coding and index
- need to think about
  - additional detail possible in nested arrangements (for national modifications)
  - rules – applications
  - sanctioning rules – adaptation
  - specialty linearizations – how they link to
  - exclusions from linearizations (eg TM components, Ch 24) and index
  - additional terms –
    - links to SNOMED and particular versions which are used in their countries.
- Need to find out more about updating mechanisms will ensure how JLMMS will still service their needs.
- How these might relate to a primary care linearization as well.

Other discussions:
- Possibility to vary extension codes – they should be added to the foundation.
- Licencing requirements – grouping for ICD are used around the world. this can be a revenue raising process for countries
- Coding questions – could there be an international process for responding?
- Updating mechanism needs some discussion, current URC process may need adaptation moving forward.
• Contributions from countries to the foundation – where not agreed through updating process. EG Australian proposal on the platform has not been processed, cannot be put into the linearization as not agreed.
• Updating of specialty linearizations compared to NL – more flexibility in what specialty linearizations can do.
• Regulation of commercial use – what does this mean?
• Sanctioning rules and X chapter codes – may be critical to NL – should be reduced at the international level, then national rules can be developed.
• Need to ensure that at national level that countries can react quickly to updating needs.
• Need to decide first up whether JLMMS suits needs.
• Same URC role proposed – how to synchronise the processes for ICD-10 and 11.
• Foundation will have continuous updates. At any given time, anything can be placed in the foundation. Some codes will be more difficult to add to the foundation than others.
• Time cycle is annual – can be more frequent. International version will be annual
• Speciality linearizations (11 currently on demand) – if there is an update, they should do these annually
• National sanctioning rules – logical dilemma. if a NL, these might differ, but should not differ from international ones.
• Rules – trying to have a common set of rules so that international reporting rules are used. Suppression and modification of rules is not encouraged
• International standard should be free for non-commercial use (possible digital version for free, books cover printing costs). Other tools may be charged for service. Legal procedures do not allow ICD to be used for commercial processes without licencing. Every country will have the same agreement.
• Query: re Australian RDRG and licencing requirement where ARDRGs are sold internationally.
• Business model needs to be developed. Basic versions will be available free from WHO. Distribution is free where basic version is made available. NL is a higher cost version, distributed from country.
• Plan is for WHO to disseminate master files for distribution of national linearizations within countries. Each country will decide what level of detail is required – this will be shared with WHO and they will create the version to be used.

Decisions Taken:
• Agreed to have continued discussions on modifications and approach, including updating process.

2.12 Additional discussions

2.12.1 Narrative
Work has been done on a narrative for the WHO FIC meeting in Manchester, identifying the ambition and progress of the ICD-11 and the JLMMS.

Decision Taken:
• More work on the narrative to be undertaken for use at the Manchester meeting (James Eynestone-Hinkins and team)
2.12.2 Change of acronym – JLMMS
- Discussions as to whether acronym should be changed, capturing link to foundation and ecology of the new arrangement for ICD-11, or removal of the word 'linearization'.

**Decision Taken**
- It was agreed that JLMMS continue to be used as a working title.

2.12.3 Japanese CC: remaining issues
- Important to have clinically important conditions higher in the hierarchy for ease of view from clinician perspective

Discussion:
- reflects previous concern about degrees of granularity across the classification
- Process of reviewing the shorelining may be necessary; shoreline may need to be bought further in in some cases.
- Need to explain why pre-coordination creates ‘peninsula’.
- Adjusting the shoreline may reduce specificity.
- Mortality may not use things down to the fifth digit, although mortality will have access to it. Risk of the unspecified categories being used.
- Reduce the levels of anatomy in the example provided?
- The seventh digit code should be cautiously reviewed as it is envisioned to be used for clustering.
- However, search tool may assist with finding codes through the hierarchy where rapid searching is available.

**Decision Taken:**
- Flattening or redesign is required, with reference to what needs to be preserved (eg. for the example given).

**Action:** WHO to implement

2.12.4 Australian CC: remaining issues
- Big picture concerns have been addressed – ID and DM were major concerns
- Some minor concerns were raised, will need to be reviewed
- Neurology chapter requires flattening / redesign, mix of terminologies and duplications, inconsistent use of terms, many precoordinated concepts which can be unbundled.
- Inconsistency in manifestations and features.
- Anaemia - requires review
- Disorders of the thyroid – detail is never likely to be captured in a clinical record. if TAGs want specificity then it should be sued as speciality linearizations
- Dementia - similar
- Pregnancy – suggest to using linking between mother and congenital anomalies
- Recommended review of the hierarchies and needs to be done in a systematic way. JLMMS needs to be consistent for usage validation.

**Decision Taken:**
- Agreed to evaluate hierarchies systematically for usage validation
2.12.5 German CC: remaining Issues

- Important to have perspective of the medical societies about what is still underway with the vertical TAGs, so they know where there are gaps and where they can step in to assist with revision process. Possible to return to the vertical TAGs for their view about gaps.
- (Alternate Point: Important to move forward, rather than to keep moving in circles)
- not proposing to open up the box for vertical TAGs, other people can make support
- WHO Proposals – not being processed since frozen version, pending a settled structure for the JLMMS.
- Australian public process –
  - never able to get to the bottom of it, especially with given resources.
  - criteria for proposals is important
- Mortality reference committee – exceedingly hard time keeping up with demand for updating. Demand for updating morbidity will be higher.
- current practice for updating is slow
- suggest to place on the agenda for Manchester meeting
- Definitions – need to consider whether to change term to ‘description’ and limit them to the necessary text. ICD-11 not a medical text book. However, inter-rater reliability is improved where definitions are included, and are an important part of the architectural model.

**Decision Taken:**
- WHO to make transparent the current status of the proposal mechanism
- Possible URC discussion at the Manchester meeting about the transition

**Action:** WHO to implement

2.13 Primary Care

**Discussion**
- Overview of ICPC and Primary Care concepts
- Presentation and discussion of primary care in relation to the JLMMS
- Discussion of inclusion of reason for encounter in the Foundation

**Decision Taken:**
- RFE to be incorporated into the Foundation layer
- Agree to have broader concepts of ICPC into the ICD Foundation
- Need to further explore to what extent PC concepts can be applied to the JLMMS.
- Further work to be done on PC with JLMMS: Updates as work progresses to be provided to the Task Force

**Action:** WHO and WONCA, through the Primary Care Task force, to implement, referring progress and options to the JLMMS Task Force
Part 3 – Next Steps

3.1 Testing Plan and Peer Review Strategy

Key discussion points:

Testing

- Phased approach proposed:
  - Stage 1 - complete preparations, performance testing of JLLMS and piloting of FT protocols (Sep. 2015 – Feb. 2016)
  - Stage 2 - chapter / specialty oriented testing (March – Dec. 2016)
  - Stage 3 – usage validation (Jan – Oct 2017)
- Management – WHO will coordinate, and provide protocols and basic infrastructure. WHO-FIC CC are expected to serve as primary Field Trial Centres. TAGs will be encouraged to conduct chapter specific / specialty testing. JLMMS TF will identify priority areas for FT and review results from Stage 2 and 3. Other stakeholders (e.g. Academia, Professional Association are invited to engage in the FT.
- Risks include the ability to mobilise resources; efforts to ensure developing country settings are included; accommodation of ICD coding practice (manual / electronic).

Discussion:

- Testing is about acceptability of the classification to various parties as well as addressing and fixing technical issues in the classification.
- No international field testing was done for ICD-10. Given the limited resources and time constrains it is important to identify “what is worth doing first”. The focus should be on JLMMS sections where codes are new, have changed, are frequently used, or cause coding difficulties etc.
- The ICD-11 coding tool should be part of the infrastructure used in field testing.
- Mortality – how will field testing interact with automated mortality coding systems like IRIS? IRIS won’t be ready for trials (in the transition from ICD-9 to ICD-10 it took three years to update the IRIS). Hence, mortality field trials should primarily focus on manual coding but possibilities for automated coding should be explored.
- Standardized training of FT participants is important for ensuring successful trails.
- ICD-11 field testing should be informed by the lessons learned from the ICD-9 to ICD-10 transition and the field testing some countries did at national level.
- Developing countries – important to include in the process but it will require mobilizing additional resources. Regional meetings on mortality or morbidity data can provide a useful platform to get countries interested to participate. Starting point should be middle income countries which already have an ICD tradition.
- Stage 3 – usage validation – should include testing in real life settings (i.e. coding anonymised case records at country level).
- Field test should include the Health Information System perspective and allow for “in vitro” testing of aspects which are important at country level.
3.2 Peer Review

- Review is an essential element in the overall Quality Assurance process for the JLMMS. The review process will ensure scientific credibility and update of the classification as well as identification and addressing errors, mismatch or gaps. Furthermore, it will allow to build-up a pool of international experts which eventually will serve as the basis for the future update and maintenance of ICD-11.

- The review process will have two components:
  - Scientific peer review of content focusing on reviewing the technical aspects of ICD-11 categories or sections within a given chapter (e.g. accuracy of the entity, its placement and sub-categories. The work will be conducted by individual experts, grouped in Peer Review Teams on the peer review platform of the ICD-11 Browser
  - Horizontal TAG review focusing on reviewing the overall of ICD-11 classification in terms of coverage, hierarchical organization, fitness for use cases, coding rules, terminological consistency, extension codes, sanctioning rules and index.

- Management - WHO will coordinate and provide the basic infrastructure for the review process. Furthermore will invite scientific peer reviewers. Vertical TAGs are expected to serve as editorial boards for the scientific peer review of content. WHO-FIC CC and other institution are expected to participate in the review process.

The review process is expected to run for the next two years and end by October 2017. Proposed review principles and criteria are listed in the PPT presentation (see Annex XY...)

**Key Discussion Points:**

- To ensure quality reviews, peer reviewers in particular should be familiarized with ICD-11 and briefed on basic classification principles. Before they start the content review.
- Given the scope and complexity of the JLMMS, the prioritization of review tasks is needed. For doing so priority areas in the JLMMS (so called review units) should be identified.
- Whether the two review components - scientific and horizontal – should run in parallel or sequence should be discussed further.
- The review process has to be manageable within the given (limited) resources of WHO, TAGs and the WHO-FIC network. Mobilizing the right type and number of reviewers is important.
- Important pending vertical TAG proposals on the proposal platform should be processed before starting the peer review process. The horizontal TAG review should include the use case perspective (e.g. review JLMMS from a statistical perspective).

**Decisions Taken:**

- Agreement on the overall phased approach and timeline for field testing. It is important to identify upfront how much of field testing is worth and essential to conduct. For doing so JLMMS TF is asks to provide feedback on the high priority areas/issue in the JLMMS and the Reference Guide. The FT activities should focus on these priority areas/issues.
- Enhance the field testing design for mortality. Main focus will be on testing manual mortality coding. Explore whether and how automated mortality coding can be incorporated in the testing.
- The review process will include peer review of content as well as horizontal TAG review of the overall JLLMMS. In the spirit of “less is more” the “must have” review units in the JLMMS should be identified and a lean and effective management process should be put in place.
Action Items:
- JLMMS TF to provide feedback on priority areas of the JLMMS for testing.
- WHO and TF members to improve test design for mortality coding
- WHO to circulate a first draft of Review Manual to Task Force and TAGs with request for advice.

3.3 Transition Study

**Key discussion points:**
- The transition study is a useful exploration to elicit, understand and incorporate the needs of the WHO Members States for a better implementation of ICD.
- WHO should continue the Transition Study including other countries, especially those who have not taken part so far and in preparation for their participation in the 2016 Revision Conference. Those who respond positively to come to the 2016 Meeting should all be included in the Study.
- For countries who plan to have a transition soon around 2018 it may be useful to organize a national transition study with all the Stakeholders involved. Users know their use cases best and have a transition plan, especially where systems are sophisticated and particular to the country.
- Crosswalks – would be useful to have aps and information available, which are produced from the WHO Foundation Based Crosswalks. Countries with national extensions would need to do the additional piece of the work. E.g. Australian national requirement study is important feature of emerging information.
- Cases and groups moving make a big impact on casemix systems – need a mapping system, and also an implementation toolkit. Need to think about system requirements, coding changes and training.
- Need to run parallel systems comparing the current existing systems with the new system. This may also require organization and workforce issues which may slow down the transition at the beginning.
- Time studies are important (comparison of how much time it takes coders to code with 10 as opposed to 11)
- Technical information about the ICD-11 Foundation and Linearizations and tools should be made available to technology experts, so that system changes can start to be anticipated.

**Decisions Taken:**
- Transition Study should be continued expanding into additional countries beyond WHOFIC, especially for those who would participate in the ICD Revision Conference in 2016.
- It may be useful to group countries and focus on prototypical selected countries to explore implementation issues in depth. One group should be the “information paradox countries” - those who do not currently use and report in ICD.
- Results of the Study and Technical Information to be made available for Revision Conference in 2016

**Action Items:**
- WHO will continue the Transition Study in particular in additional countries other than WHOFIC and focus on selected samples from a stratified set of countries.
- WHO will make the results available for Revision Conference
3.4 Outstanding Issues

3.4.1 Next Meeting JLMMS TF

Need to create opportunity to get MTAG / MbTAG together:

- Need to present broadly on the progress of JLMMS, and decisions being taken forward.
- MTAG and MbTAG have agreed to convert the joint meeting to one for the JLMMS TF.
  Sunday, October 18 has been agreed as an open session (but not for re-litigation of issues). A closed session is proposed for Saturday evening is possible.
- One of the plenary sessions on the Thursday or Friday could be dedicated to the JLMMS progress.
- Brief update also to be provided to the Council meeting.
- Need to attend to marketing as well as detail. Previous meetings need to be overcome. Marketing needs to come before technical sessions.

Decisions Taken:
- Agreed that the JLMMS TF meeting in Manchester, closed session on Saturday evening, and an open session (focus: marketing, framed as an opportunity to participate) Sunday October 18, at the joint session for the MTAG and MbTAG.

Action Items:
- MTAG and MbTAG to organize closed and open joint sessions.

3.4.2 Remaining work and progress

- Beneficial for JLMMS to meet before 31 October.
- Some things can be dealt with electronically in the meantime.

Decisions Taken:
- At least two JLMMS TF meetings be organised between now and Manchester meeting

Action Items:
- Anneke to propose WebEx meeting dates (since proposed as 21 September and 9 October)

3.4.3 Governance

Multiple parties involved in the JLMMS process

- What is the status of the decisions of this meeting – decisions are the position of the Task Force
- What process is in train to prevent spinning wheels.
- Paper 3 and 4 – express views on the decisions to be made. This is the JLMMS linearizations – what you say will be the final thing which will be sent to the secretariat. Inconsistencies need to be solved between TF and others – if can’t be resolved, then RSG-SEG can be involved. Passages from narrative can be used in the EB document.
- Not just content, but classification and statistical decisions are now needed.
**Decisions Taken:**
- WHO to develop a paper on possibilities for future decision-making affecting updating, testing and review as they impact JLMMS
- Decisions made by the group – the Task Force will be briefed on any possible changes needed to the decisions made here.

**Action Items:**
- WHO to organize papers on testing, peer review and updating be circulated to the JLMMS group for advice

### 3.5.4 Risks

**Discussion**
At the request of Dr Ties Boerma, Task Force Members identified the following risks for the JLMMS progress:
- Fitness for purpose and narrative are important.
- Sequencing of volume of work in the timeframe is a risk, and communication across sequenced work is important.
- There is a path now; review report has set the path.
- ICD-11 has developed intellectual assets to WHO, there is huge potential now in the foundation of ICD. Need to consider long term resourcing.
- Careful management needed – peer review is a risk that battles resolved may be opened up again.
- Important to manage expectations around peer review and field testing. Flaws (real or perceived) will be found. Needs to be managed.

Meeting closed at 3:30pm 4 September 2015.