



A WISN TOOLKIT

A TOOLKIT FOR IMPLEMENTING WORKLOAD INDICATORS OF STAFFING
NEED (WISN) TO IMPROVE HEALTH WORKFORCE PLANNING AND
MANAGEMENT IN DECENTRALIZED HEALTH SYSTEMS

2009

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This is a complete WISN tool kit developed and implemented in the provinces of Nusa Tenggara Timur (NTT) and Nusa Tenggara Barat (NTB) in Indonesia as part of the GTZ/ EPOS Health HRD Project Strategies to Strengthen Human Resource Planning and Management Development Efforts. This tool kit is adapted from the WHO WISN Manual published in 1998 to be utilized in a decentralized health environment. This work was undertaken with permission from WHO.

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Components of the WISN Tool Kit for the Decentralized Level in Indonesia were developed in 2008 and consist of:

- Guide to Using the WISN Toolkit.
- Documentary Film.
- Case Study on WISN implementation in NTT province.
- Steering Committee Orientation presentation.
- User's Manual for Developing Workload Indicators of Staffing Need (WISN) to Improve Health Workforce Planning and Management.
- Outline of training of WISN trainers (Training of Trainers).

List of Contents

1. Guide to Using the WISN Toolkit.
2. Documentary Film.
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Guide to Using the WISN Toolkit

2009

Why the Toolkit was developed

The Toolkit is adapted from the WHO WISN Manual. WISN has traditionally been in a “top down approach” with limited success, particularly when applying it within the context of a decentralized government system. It was recognized that a more innovative approach was required to implement the methodology successfully at decentralized levels.

The Toolkit was developed through collaboration with health personnel from health centres and hospitals at district and province level in Nusa Tenggara Barat and Nusa Tenggara Timur Provinces as well as personnel from the National Board for Human Resources for Health of the Ministry of Health of Indonesia.

Content of the Toolkit

- A short Documentary Film on WISN (17 minutes).
- A Case Study on the introduction of WISN in East Indonesia utilizing a “bottom up” approach.
- A Power point Presentation for orienting stakeholders and decision makers.
- A simplified WISN Manual.
- An Outline of Training of WISN Trainers (Training of Trainers).

The Powerpoint presentation was developed for the specific situation in Indonesia. If you are going to use this presentation, please make sure that you make adaptations appropriate to your situation, e.g. pertaining rules, regulations, legislation, policies, organizational structures etc.

Likewise, the simplified WISN Manual should also be appropriately adapted to your particular human resources situation.

Step 1. Getting Stakeholders and Decision Makers to accept the Methodology and its Results

There is absolutely no point in implementing WISN at the decentralized level unless the stakeholders and decision makers understand the methodology and are willing to accept, support the implementation of the methodology and act on its results.

Step 1.1. Organise a half day or one day orientation meeting for decision makers as relevant to the situation. (e.g. Provincial and District Health Directors, Heads of Personnel /HRD/ administration, Health Facility Directors, other relevant local government senior personnel, elected officials including parliament (central and local), professional associations etc.

Step.1.2. Show the Documentary Film, which introduces the WISN Methodology and its application in health facilities.

Step 1.3. Follow this by a simple and clear explanation of the WISN Methodology using A Power Point Presentation for Orientation of Stakeholders and Decision Makers.

Step 1.4. Follow up with a plenary session where questions can be answered and points clarified. This can then lead into a general discussion. It is helpful to get a formal signed written declaration of support for use of the methodology, whenever possible. It is also helpful to encourage Provinces and Districts to form Steering Committees to oversee implementation of the methodology and to support the taking of action based upon the results. It is also important that they understand that the results of WISN can contribute to more accurate District, Provincial and National Health workforce planning.

Step 2. Implementing WISN

Once agreement has been obtained to use WISN for health facilities it is important to clarify the category/categories and type of facility to be addressed. When starting to implement WISN for the first time it is recommended to “start small” in a small decentralized health facility such as a health centre. This allows health workers to fully understand and become comfortable with the methodology. Once staff are confident with the methodology they can then apply WISN to more categories working at larger health facilities. (E.g. hospitals, district health laboratories, etc.). Each professional category works to apply WISN in its own professional category group. Each professional group then presents back the results to all the categories. This feedback allows each professional category to understand the work of the other category and to identify where there is duplication of work. Whilst working together, these groups can also work together to eliminate the duplications.

Step 2.1. Identify the categories of health workers and the type of facility to start with.

Step 2.2. Bring together a group of experienced workers from the selected categories from a number of health facilities of the type chosen.

Step 2.3. Implement WISN following all the steps included in the WISN Manual.

Step 2.4. Get each group or professional category to report back their calculations. At this time it is possible to pick up errors in calculations and clarify points which were poorly understood.

Step 2.5. Analyse the results - Once you have calculated the staffing gaps and WISN Ratios, it is important that you do not take the WISN ratios at face value. It is important to ask a number of questions for example:

- (a) Is a health facility over staffed?: Why is this happening? Is it underused? If so why? How can the health centre/hospital staff encourage the community to use the facility? Are there other services that can be offered for which the excess staff can be used. Remember it is difficult to move personnel so this should only be done as a last resort if there are no other alternatives for using the excess staff.
- (b) Is a health facility under staffed?: Why is this happening? Is it under pressure? If so why? Will it affect service quality? Are there any other activities that are not directly related to their main tasks taking up most of their time rather than the main services? Can the main services and supporting activities be made more proportional?
- (c) Is there duplication of work between the different categories of professions? Identification of this can indicate a need to clarify tasks, roles and functions and revise job descriptions.

- (d) Is any category of health worker undertaking work for which they have not been trained? If so, it may be necessary to recalculate WISN related to their tasks, roles and functions for which they have been trained. The other work should be allocated to the relevant health category that is trained to do this work. It is then necessary to take this into account in the application of WISN to that relevant category. (see the WISN Case Study for example of single trained midwives spending a high proportion of their time in carrying out nursing tasks).

Step 3. Using the Results

The results of WISN can be used in a number of ways.

- I. To adjust the staffing levels in a health facility based on the workload.
- II. To identify health facilities which are over staffed but under used. This may indicate the need for more supportive supervision to the health facility staff to identify more innovative and proactive ways of working with the communities they serve.
- III. To identify under staffed facilities and areas and identify innovative ways to fill vacant posts for example:
 - a. target posting of new graduates to these areas after appropriate orientation;
 - b. target these facilities for introduction of motivational systems;
 - c. work with relevant local communities to identify appropriately educated school leavers from these communities who can achieve entry to pre-service education and who agree to return to serve their communities upon graduation.
- IV. To provide more accurate data for district, provincial and national workforce planning which will contribute to the more equitable distribution of health workers. And ensure the correct skill mix in health facilities.

Step 4. Training of Trainers (TOT)

The most effective trainers are those who have already used WISN for their own particular category of profession in their own health facility. The TOT aims not to yet again teach them the methodology but to help them to communicate the methodology effectively to others.

4.1. Select health workers who have already used WISN and who are interested and motivated to share the results with other health workers in health facilities.

4.2. Provide a TOT (training of trainers) session that includes an intensive refresher WISN session for these selected health workers, to help ensure that they have a solid understanding of the WISN mechanism. Also provide these people with essential training knowledge and skills to enable them to become more effective facilitators of WISN.

4.3 As the need for WISN facilitators is great, there should be a continuous effort to train more facilitators so that more and more health workers are able to calculate their workforce needs, resulting in much more accurate and better health workforce planning.

Step 5. Recognizing additional benefits of WISN

A number of additional benefits emerged when implementing WISN at a decentralized level.

- (a) Motivation - Health Professional Staff who work at the lowest levels of the health system in small and frequently isolated health facilities were highly motivated to have an opportunity to use WISN to develop evidence for more appropriate staffing of their facilities and to have the evidence that they provided given consideration by senior managers and decision makers.
- (b) Strengthening Team Work - Applying WISN to a number of categories of workers from the same type of health facility (for example: nurse, midwife, nutritionist and sanitarian at health centre level, or a number of different technical and non technical categories in a hospital) is an excellent way of strengthening team work. It promotes more understanding of each other's role and where necessary clarification of the core role and functions of each profession. It allows them to identify where duplication of work occurs and to jointly identify how they can work more effectively together as a team.

The strengthening and motivation of health teams for WISN is an excellent basis on which to build on when using other motivational approaches. Overall motivational approaches will not work if applied to health workers who have to undertake work for which they have not been trained. (For example: a nurse who has not been trained as a midwife having to undertake midwifery duties or vice versa).

Jakarta, INDONESIA, February 2009



Case Study On Decentralised
Application Of The WISN Methodology
In The Nusa Tenggara Timur Province,
Indonesia

2009

Decentralised application of the WISN methodology in the Nusa Tenggara Timur Province, Indonesia

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Background and rationale

The Indonesian Ministry of Health (MoH) has used various methodologies to plan human resources for health. Difficulties were encountered, however, in attempting to develop a method to plan the health workforce of different facilities. In the 1980s, MoH issued Decree No. 262, stating that bed ratios would be the basis for calculating staff requirements of hospital wards. Fixed standard staffing patterns were also used for district hospitals and health centres.

The original Indonesian decentralisation and autonomy laws were passed in 1999. They came into effect on 1 January 2001 but with insufficient transition. Powers were decentralised directly to the district levels with only a minimum level of authority given to the provinces. The laws were amended in 2004 to provide the provinces with slightly more authority. The responsibility for health human resources was also decentralised to the district level. Payment of salaries, development of career paths, recruitment and placement into civil service positions is now the responsibility of the respective district governments. The central government retains the authority for new personnel allocations and the setting of civil service regulations. The provincial government has almost no function in human resources. The only exceptions are coordination, monitoring and evaluation functions and the transfer of personnel among districts or provinces. Provincial health workforce planning functions are almost meaningless. Districts decide on their own on human resource matters, except for new staff allocations. As mentioned before, these require central authorisation by the National Personnel Board under the State Ministry for Administrative Reforms (MENPAN).

The Board for Health Human Resources Development and Utilization (BPPSDMK) was established in 2001 as part of the Ministry of Health (DEPKES). Its four centres cover all the health human resources aspects from planning and utilisation, pre-service education and in-service training to professional empowerment and foreign work affairs. The Board has accreditation powers on educational and training institutions, but oversees only DEPKES owned health polytechnics. There is almost no direct connection between the BPPSDMK and district health offices and governments.

DEPKES Decree No.1202/2003 issued Healthy Indonesia 2010 Indicators in 2003. Population ratios were applied to calculating staff requirements (e.g. 100 midwives for 100,000 population). Following decentralisation, a further DEPKES Decree (No. 81/2004) on staffing was issued. It was called Guideline of Planning Health Workforce for District Health Office, District Hospital, and Health Centre. This Decree promoted the use of three methodologies for determining required staffing: population per staff ratios, facility-based staffing standards and WISN.

The central BPPSDMK organised a series of training courses in Jakarta on the three methodologies. The trainees were representatives of the 33 provinces in Indonesia. The impact of the training was

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limited, due to a number of factors:

- The BPPSDMK specified who the trainees should be. However, it had no control over who the provinces actually sent to the course.
- Many provincial trainees were administrative staff. They were neither sufficiently senior in status nor appropriately placed to be able to advocate to provincial and district leaders regarding the adoption of the methodologies.
- The training was short and WISN was covered in only one day. This was inadequate to achieve any level of competence in the methodology. Furthermore, the training focused narrowly on doing the calculations, not on interpreting results.
- The training response varied greatly, depending upon the interest, ability and seniority of individual trainees. On return to their province, some merely reported back on the training. Others commenced implementation of WISN but quickly encountered problems.
- Senior managers at the central level changed frequently. There was no strong backing for using WISN nor adequate funding to follow up with the trainees.
- Provinces (and districts) were already using the ratio method. It was thus easier for them to revert to using ratios which were also included in Decree 81.
- Decentralised decision makers and politicians were unwilling to accept the recommendations on staffing levels. They did not know or understand the WISN methodology on which they were based. Hence they continued to influence employment and deployment of health personnel on political grounds.

The “top down” approach to introducing WISN thus proved to be too centralised for effective implementation at the local level.

The GTZ-funded HRD in the Health Sector Project is implemented by EPOS and works with the BPPSDMK. It supports human resource planning and management improvement at the central level and in two provinces, Nusa Tenggara Timur (NTT) and Nusa Tenggara Barat (NTB). The Project agreed to support the application of WISN methodology in the two provinces. Because the two EPOS/GTZ HRD Project Long Term National Experts were not familiar with WISN, they joined the Provincial Health staff in the centrally organised WISN training. Subsequently, they worked with their colleagues in the Provincial Health Office to implement WISN. However, they encountered a number of problems with the WISN methodology and had only limited success.

A short-term international consultant was engaged to work with the EPOS/GTZ HRD Project Long-term National Experts in order to facilitate the introduction of WISN in both provinces. The consultant first reviewed the WISN training material which the central level had used. She noted that certain methodological steps had not been included or explained correctly. The complex language of the 1998 WHO WISN Manual and its lack of “user friendliness” appear to have resulted in difficulties in translation and consequent misinterpretation. It was also observed that the Decree 81/2004 included Activity Standards from countries other than Indonesia. The provincial representatives, trained at the central level, had used these foreign standards without considering their applicability to their own provinces.

A new approach

After intense discussions, the EPOS/GTZ HRD Project agreed with the NTT and NTB provinces that a new approach was required to introduce WISN within the decentralised health system. It was decided that in the NTT province, the new WISN approach would initially address only one category of staff, midwives at the health centre level. In NTB, the focus would be on hospital nurses, the largest category of hospital staff.

The first step in the WISN process was to orient key decision makers and stakeholders to the WISN methodology and its advantages. In NTT, discussions were held with the Provincial Health Director to identify the members of a Steering Committee, which was made up of influential officials at provincial and district level. The final list included heads of District Health Offices, Provincial and District Personnel Bureaus, and the Provincial Planning Board; senior officers from the Provincial Health Office (including its human resource division); representatives from the Midwifery Association and from the midwifery pre-service and in-service training institutions in the province. Gaining the interest and understanding of the Steering Committee was crucial to successful WISN implementation. The international consultant and EPOS/GTZ Project Experts organised a one-day orientation for the Steering Committee. The members were informed of the WISN methodology and its advantages and encouraged to ask questions. The strong support of the Provincial Health Director and his advocacy for the WISN methodology were crucially important to gaining the Steering Committee's support. When the members recognised that WISN, as a workload based tool, would provide more accurate and appropriate staffing requirements than the old ratio method, they enthusiastically supported WISN application in their jurisdictions.

A Task Force was given responsibility for the actual WISN development. Its 23 members represented nine districts in the NTT province. Besides experienced midwives working at health centre level, the Task Force included midwifery educators, representatives of the midwifery association and midwives in the Provincial Health Office. The international consultant and the EPOS/GTZ Project Long-term National Experts trained the Task Force in a three day training workshop, which followed the orientation of the Steering Committee. The EPOS/GTZ HRD Project paid for the participation of Task Force members from six districts, and an AusAID project supported three more districts. The Provincial Health Director and senior members of the Provincial HRD division again showed their support by being present during most of the training. This gave a strong signal regarding the importance of WISN, despite the lack of a hierarchical relationship between the province and districts. It also strongly encouraged a spirit of "working together" for more effective human resource planning.

During the training, the Task Force jointly estimated a health centre midwife's available working time, defined her workload components, developed Service and Allowance Standards and calculated Standard Workloads. The last part of the workshop was spent using their own workload data to calculate required midwifery staffing for health centres at the district level and compare it to current staffing levels. Where the workload statistics were incomplete or their data definition was not entirely clear, the midwives decided to check the calculations after the data issues were clarified. Furthermore, they next committed themselves to calculating WISN for individual health centres in their districts.

Expanding WISN in the NTT Province

Following the enthusiastic response of the original nine districts, the Provincial Health Director requested support from the EPOS/GTZ HRD Project and AusAID to expand WISN training to the remaining districts in the NTT province. The GTZ Project supported this initiative and the same approach of orienting decision makers (Steering Committee) and training midwife representatives (Task Force)

was used with eleven further districts. The training was done by the EPOS/GTZ Project National Experts, supported by the international consultant.

Both the first and the second task force worked enthusiastically long after hours to identify and agree on the core midwifery workload components and Activity Standards for their districts. Intense discussions were held with the provincial representatives to eventually come to a common agreement on both workload components and Activity Standards at the provincial level. The participants in the second WISN training suggested that a group of WISN trainers be trained locally so that the WISN process could be carried forward without outside support.

Subsequent to the Task Force workshops, several trained midwives organised informal sessions at their work sites in which they shared the WISN methodology with their peers. The midwives stated that they found WISN extremely useful because it helped them to more clearly focus their working time on key activities. They were also very appreciative of being empowered to analyse their own work situation in their own health facilities. This allowed them to send evidence based recommendations upwards to the district level, where staffing had frequently been based on political, rather than technical grounds.

The GTZ Project agreed to support the TOT training. It was provided to 14 WISN trainers, selected from the most motivated, previously trained midwives. The trainers came from the HRD and Community Health Service divisions of the Provincial Health Office, pre- and in-service training of the provincial health polytechnic, the midwifery association and nine district health offices. Because these midwives already knew and were confident with the WISN methodology, the training focused on communication, motivation and interpretation of WISN results. The training was conducted by the three EPOS/GTZ Project National Long Term Experts. The GTZ Project input to WISN has been purely supportive after the TOT training. The NTT based National Expert continued to provide some technical assistance and advice to the trainers, but the districts have now taken over funding WISN, which is included in their budgets.

NTT Helping Other Provinces

The GTZ-funded health project in Aceh province heard about the success of WISN in NTT. The project managers requested support from the EPOS/GTZ HRD Project for using WISN in that province. The focus was staffing of the newly reconstructed hospital in the Banda Aceh, the provincial capital. Two WISN trainers from NTT accompanied the EPOS/GTZ HRD Project Jakarta based Expert to Aceh. They jointly implemented a WISN training workshop for seven different categories, including medical specialists. The NTT trainers were midwives, who previously had only applied WISN at the health centre level. They were initially nervous about applying it in the more complex hospital environment with many competing professional interests. The Jakarta based Expert who accompanied them was an experienced former hospital director. With his support, the trainers performed extremely well and have been invited back for a follow up workshop.

For the NTT WISN trainers, their role in introducing WISN to the Aceh province has been a source of immense pride. Their experience and understanding of the methodology allowed them to apply WISN successfully in a much more complex environment than a health centre. They are now confident in applying their expertise to hospitals in NTT also⁶.

6 In the NTB province, the WISN introduction started with nurses in two hospitals. The progress was initially very slow due to competing professional self interests and other issues. Following NTT's success with WISN at the health centre level, the NTB focus was changed from hospital to the health centre. The response from districts has been enthusiastic. WISN trainers have been trained and a number of districts have allocated budget for WISN application in their 2009 budgets.

Findings and Some Policy Implications

The definition of a health centre midwife's workload components revealed that midwives were frequently undertaking "non midwifery work." Such non midwifery activities varied between districts and included school health, care of the elderly, TB and malaria and other such activities. It was not clear whether this was due to lack of sufficient nursing or other categories. This finding has obvious policy implications for defining the expected roles and responsibilities of different categories, improving the appropriateness and efficiency of a staff mix at facility level and ensuring the health workers' competency in carrying out their work.

Another important WISN finding was the considerable time spent on such activities as handover reports, meetings and collection of salary which are not direct midwifery tasks. Table 1 below illustrates the varying time proportion between main service activities and allowance activities in the nine districts which were trained in the first round.

Table 1: Time spent on main service activities and allowance activities (as % of Total) in nine NTT districts, Indonesia 2008.

No	District	Time proportion (%)	
		Main services	Allowance activity
1	TTS	49.97	50.03
2	TTU	49.95	50.05
3	Belu	49.95	59.80
4	Kupang city	42.17	57.83
5	Kupang	39.30	60.30
6	Rote Ndao	46.25	53.75
7	Sikka	38.03	61.97
8	Ende	42.78	57.27
9	Sumba Timur	28.80	71.20
Range		28.80 - 59.97	50.03 - 71.20
Average		43.02	58.02

The WISN calculations for health centres in one district identified clearly which facilities were relatively over- and understaffed. Table 2 provides an example from the TTS district.

Table 2: Results of WISN calculation of midwife requirements for all health centres of TTS district in 2008

No.	Health centre (HC)	Current midwives (a)	Required midwives (b)	Difference (a-b)	Problem	WISN ratio (a/b)	Workload pressure
1	Boking	4	4	0	Adequate	1.0	Perfect match
2	Batu putih	8	7	+1	Overstaffed	1.1	No
3	Kuanfatu	6	8	-2	Understaffed	0.75	Low
4	Polen	6	9	-3	Understaffed	0.67	High
5	Siso	9	11	-2	Understaffed	0.81	Low
6	Manufui	3	2	+1	Overstaffed	1.5	No
7	Noemuke	4	4	0	Adequate	1.0	Perfect match
8	Hauhasi	3	8	-5	Understaffed	0.38	Extremely high
9	Kualin	6	5	+1	Overstaffed	1.20	No
10	Hoibeti	2	4	-2	Understaffed	0.5	Very high
11	Oe'ekam	6	9	-3	Understaffed	0.66	High
12	Kie	7	10	-3	Understaffed	0.70	High
13	Panite	12	10	+2	Overstaffed	1.20	No
14	Lilana	2	3	-1	Understaffed	0.66	High
15	Oinlasi	6	10	-4	Understaffed	0.60	High
16	Se'i	5	7	-2	Understaffed	0.70	High
17	Fatumnasi	5	5	0	Adequate	1.00	Perfect match
18	Nulle	16	10	+6	Overstaffed	1.60	No
19	Nunkolo	4	3	+1	Overstaffed	1.33	No
20	Niki-niki	13	16	-3	Understaffed	0.81	Low
21	Kota	16	12	+4	Overstaffed	1.33	No
22	Kapan	10	17	-7	Understaffed	0.58	Very high
23	Ayotupas	2	5	-3	Understaffed	0.40	Very high
TTS district		155	179	-24	Understaffed	0.86	Low

The importance of interpreting the data before formulating new policies or taking management action was emphasised to the WISN trainees. An important question in the NTT context, for example, is whether such calculations include “non midwifery” activities or only the midwifery ones. This is particularly important in the Indonesia context where midwives are “single trained” for midwifery only and thus untrained for their “non midwifery” activities. Thus a policy decision to increase midwife staffing in response to WISN results which include the non midwifery activities would be the wrong one.

Most NTT health centres applied the WISN only to the midwifery category in their first WISN exercise. In Kupang city, however, both district and health centre level staff wanted to undertake WISN for all health centre categories, i.e. midwives, nurses, a nutritionist and a sanitarian. Representatives of each category were brought together as groups in a workshop to develop WISN for their own cadre. This joint activity with different groups working side by side identified areas of overlap and duplication of work. This was particularly true in the area of nutrition. Such findings bring out the need to re-examine roles and functions of each category as well as the job descriptions and to adjust policies as a consequence.

Policy and decision makers at the decentralised level have found WISN very useful. It provides technical, evidence based criteria for staffing decisions which previously have frequently been made

on other, often political criteria. The approach used for introducing WISN first at the health centre level facilitated the health centre staff working in a participatory manner with district and provincial staff in identifying their health workforce needs and distribution. Sharing the data on understaffed facilities with the provincial and central level allows these levels to develop more appropriate recruitment strategies, such as targeting potential students from underserved communities for pre-service training. The WISN methodology also supports clearer policies on Activity Standards and professional roles in health facilities at different levels and where necessary, re-profiling of jobs. These, in turn, will impact on policies regarding job descriptions and performance assessment.

Lessons Learned

The introduction of the WISN methodology to the decentralised level has been an exciting experience. The response at the province and district level has far exceeded the expectations of the HRD Project staff. A number of important lessons were learned in the process:

A bottom up approach to introducing WISN is more effective than a top-down one in a decentralised government system. The NTT experiences showed that once local decision and policy makers understood the WISN methodology and its benefits, they were willing to accept and act upon the results. Furthermore, they took ownership of the WISN process by including funding for WISN within their district and provincial budgets.

Engaging the local senior decision and policy makers in understanding the method is essential for success. Gaining the support of this group sent a clear signal to the health workers at the health facility level that WISN was an approved methodology. The district health and local government authorities are now taking into account the workforce requirements of individual facilities.

The Provincial Health Director's role in advocating and supporting the WISN methodology was particularly important both for the success of WISN and for empowering the staff category. The Provincial Health Director demonstrated that he trusted the midwives' capacity to apply WISN to analysing and providing evidence of staffing needs. As women who are frequently based in the most isolated areas of the province, midwives had felt that they had no voice in staffing decisions. The Provincial Health Director's strong support has been extremely empowering both for the midwives at the health centre level and the midwifery profession in the province as a whole.

The complexity of the 1998 WHO WISN Manual impacted negatively on the central level effort, stimulating them to implement WISN through the "top down" approach using translated parts of the Manual. The translated WHO manual was not provided to either the Steering Committees or the Task Forces, when it was introduced through the bottom-up approach. The key points of WISN and the steps for its implementation were provided to the trainees through PowerPoint presentations. WISN examples and calculations used the participants' own local data. The members of both the Steering Committees and the Task Forces were encouraged to ask questions and receive clarification of each point and step.

Health workers even at the basic service level can use the WISN methodology and take ownership of it, if the training is clear, simple and to the point. The training of health centre midwives in NTT to implement WISN in their health facilities has been a huge success. The midwives demonstrated that once they thoroughly understood the WISN methodology and were confident with using it in the health centres, they needed only supportive supervision to apply it in a more complex environment, such as a provincial hospital. They rapidly gained confidence in sharing the WISN methodology with other categories, including medical specialists.

Conversion of a Category Allowance Standard through a mathematical formula into the Category Allowance Factor was the most difficult WISN step for the trainees to grasp. To address this challenge, EPOS/GTZ HRD Project staff are currently developing a simplified WISN Manual. It will include a clearer way of explaining this step.

Developing local self-reliance and ownership of the WISN process is very important. The new WISN approach was initially introduced by the EPOS/GTZ HRD Project and subsequently supported by both GTZ and AusAID. The Task Force members, who saw the value of the WISN methodology, soon lobbied for training of their own group of WISN trainers. The enthusiastic response of the senior district health and government officials to WISN led them to lobby local parliamentarians to accept WISN as the official workforce planning methodology in NTT. They allocated funds in the local budgets for continued implementation of WISN. The EPOS/GTZ Project has now taken a back seat in the WISN process. Up to the end of the Project (end of 2009), its support will be limited to two activities: technical assistance, as needed, by the Project's National Expert based in NTT and refresher training for the WISN trainers. The refresher training is aimed at extending WISN to hospitals and other staff cadres.

The WISN process is an important driving force for bringing together various stakeholders who have a role in health workforce decisions in a complex decentralised health system. In NTT, the provincial and district authorities, professional cadres and professional associations are now beginning to address in a systematic manner the difficult issues of health workforce roles and distribution in the districts and the province as a whole.

WISN results can be very helpful in clarifying health professional roles and professional categories. The application of WISN at the health centre level demonstrated clearly that health centre midwives in NTT were spending up to 50% of their working time on "non midwifery" activities. These midwives have not been trained for such activities, e.g. school health or care of the elderly. These activities, in fact, belonged more appropriately to nurses. This was a very important finding. The general assumption up to that point had been that the number of midwives was insufficient for their midwifery workload. Without the clarification that WISN provided, this presumption could have resulted in employing more midwives, rather than nurses, to cover the "non-midwifery" activities. A transfer of these activities to nurses will allow midwives to concentrate on their dedicated midwifery functions.

Applying WISN to a number of health professional categories working together is more valuable to role definition than applying it a single category at a time. The Task Force members had never been exposed to the WISN methodology prior to training. Applying WISN to a single staff category, the health centre midwife, allowed them to become comfortable with the methodology. As competence increased, the Kupang city decided to train all four health centre cadres together. The discussion between the categories made it easier to identify role duplication and provided good information for the review and revision of job descriptions.

The WISN process highlights inconsistency and lack of clarity in data definition. Decentralisation carries a risk of fragmenting an existing health information system, including the way data are defined. The application of WISN in both the NTT and the NTB provinces revealed some inconsistency and lack of clarity in data definitions. In some cases, these could be resolved through discussion among the Task Force members. In the case of NTB hospitals, however, the nurses in the Task Force were unable to complete the WISN calculations during the training workshop, when they discovered that an "inpatient admission" was not defined uniformly in the two hospitals.



Presentation for
Orientation of Stakeholders and
Decision Makers to WISN

2009



Presentation for Orientation of Stakeholders and Decision Makers to WISN

2009

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This presentation is part of a complete WISN tool kit developed and implemented in the provinces of Nusa Tenggara Timur (NTT) and Nusa Tenggara Barat (NTB) in Indonesia as part of the GTZ/EPOS Health HRD Project Strategies to Strengthen Human Resource Planning and Management Development Efforts. This tool kit is adapted from the WHO WISN Manual published in 1998 to be utilized in a decentralized health environment. This work was undertaken with permission from WHO.

Components of the WISN Tool Kit for the Decentralized Level in Indonesia were developed in 2008 and consist of:

- Guide to using WISN Toolkit.
- Documentary Film.
- Case Study on WISN implementation in NTT province.
- Steering Committee Orientation presentation.
- User's Manual for Developing Workload Indicators of Staffing Need (WISN) to Improve Health Workforce Planning and Management.
- Outline of training of WISN trainers (training of Trainers).

NOTE

This Presentation was developed for use in Indonesia and refers to Indonesian context. When using it in other countries it should be adapted accordingly.

Decentralisation and new roles

Local governments have new powers, including over HRH

Province now responsible for “Placement of strategic health workers and moving certain workers between districts within the province” (Government Regulation # 38/2007)

Workforce planning

Meets the organisation’s strategic plan and objectives by placing:

- Right people
- In the right place
- At the right time
- With the right skills and education
- Of the right skills mix

How to plan Human Resources in Health (HRH)?

Province needs a good method to:

Plan the number and type of HRH it requires

Allocate HRH to different health units

HRH planning guidance given in Decree # 81/2004

Includes old and new methods

Old HRH planning methods

Population ratio

Number of HRH per 1000 population

Standard staffing schedule

Fixed number of HRH per type of facility

Such methods have several problems

Example:

Ignore local differences in the amount and type of work that health workers do

WISN

WISN = Workload Indicators of Staffing Need

New method

Based on actual work that health workers do (their workload)

Can be applied to all personnel categories

- Medical staff
- Paramedical staff
- Non-medical staff

Why WISN?

Useful for calculating both current and future HRH requirements

Useful for comparing level of HRH in different areas or health facilities

Indicates how much work pressure HRH are under

WISN methodology

Step 1: Decide WISN target

Select for WISN use

HRH category

Type of facility

Geographic area

Example:

Nurse in Puskesmas (health centre) in NTB province.

Step 2: Estimate working time

Count annual working days.

Estimate days for vacation, public holidays, other annual leave and absence days per year

Deduct days off from annual working days.

Example:

There are 260 working days in a year.

A puskesmas nurse has 40 days off, so she works 220 days in a year.

Step 3: Define components of work

Define the main activities of the HRH category

Example:

Puskesmas (Health centre) nurse has the following main activities:

Inpatients

Outpatients

Posyandu (Health Post)...

Step 4: Set Activity Standards

Activity standard:

The time it takes a trained and well-motivated member of a particular staff category to perform the action to acceptable professional standards in the circumstances of the country.

Two types of Activity Standards

- Service Standards
- Allowance Standards

Used differently in calculating final HRH requirements

Service Standards

For activities that are reported in annual service statistics

Example:

- Inpatients
- Outpatients

Shown as unit time or rate of working

Example:

- 15 minutes per patient or
- 30 patients per day

Allowance Standards

For activities that are not reported in annual service statistics

Example:

- Recording and reporting
- Attending meetings
- Attending training courses
- Providing training

Shown as % of working time or actual working time

Example:

- 10% of working time
- One hour per day

Step 5: Calculate Standard Workloads

Standard Workload:

Amount of work (within one activity) that one person could do in a year.

Step 5: Calculate Standard Workloads (Cont.)

- If expressed as unit time for the activity:
Std. workload = $\frac{\text{Available working time in a year}}{\text{Unit time for the activity}}$
- If expressed as rate of working:
Std. workload = Rate x Available working time in a year.

Step 6: Calculate Allowance Factors

Two types calculated from Allowance Standards

- Category Allowance Factor
Applies to all workers in a particular category
Example:
All nurses in a health centre
- Individual Allowance Factor
Applies to a fixed number of workers in a particular category.
Example:
Only the nurse in-charge

Step 7: Calculate required HRH

Divide annual service statistic by the Standard Workload (for each activity)

Add together HRH requirements of all activities

Apply Category Allowance Factor (formula)

Add Individual Allowance Factor(s) (whole time equivalent)

Using WISN results

Two kinds of comparisons:

Difference between actual and required number of HRH

Shows the level of shortage or surplus of HRH

Ratio of actual to required number of HRH (WISN ratio)

Shows the amount of pressure which HRH category works under;

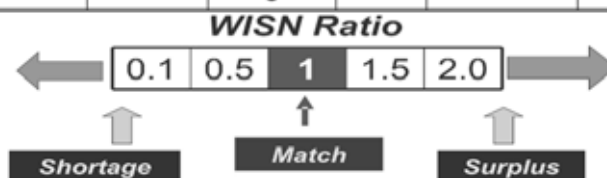
WISN ratio = 1: HRH sufficient

WISN ratio less than 1: HRH NOT sufficient

WISN ratio greater than 1: More than enough staff

Example: Health workforce requirement (certain personnel) in different health centres of district

No	Health Centre	Actual staff (a)	Staff required (calculation) (b)	Shortage/ excess (a-b)	WISN Ratio a/b	Existence of Workforce problems	Follow up
1	A	5	6.25	-1.25	0.8	Staff shortage	Distribution and allocation (local gov'n't)
2	B	3	1.50	+1.50	2.0	Staff surplus	
3	C	12	10.00	+2.80	1.2	Staff surplus	
4	D	8	8.00	0	1.0	Perfect match	



Roles of SC and TF

Steering Committee (SC)

- Review Activity and Allowance Standards
- Consider WISN results for management action

Task Force (TF)

- Define Activity and Allowance Standards
- Estimate Standard Workloads
- Calculate nurse requirement (WISN results)

Questions for SC to raise with TF

- If a facility is overstaffed:
 - Why? Is it underused?
 - How does it engage with the community?
 - Are there other services which can be offered for which excess staff can be used?

Questions for SC to raise with TF

- If a facility is understaffed:
 - Why is this happening?
 - Is it under pressure?
 - Will it affect service quality?
 - Can main and supporting activities be made more proportional?

Example: Implementation of WISN in NTT Province

- Develop WISN for Midwives (MW) at Health Centres (HC)
- Organise SC's and TF's from 9 districts
- TF made up of experienced MWs from HCs
- Implement WISN Calculations

Example: Implementation of WISN in NTB Province

Develop WISN for hospital nurses in Mataram and Selong hospitals

- Organise Steering Committee (SC) and Task Force (TF)
- TF made up of nurses experienced in hospital nursing
- TF meetings and calculation of WISN
- Presentation of results
- Training of Trainers

Example: Implementation of WISN in NTT Province (continued)

- Presentation of Results
- Training of WISN Trainers
- DHOs now providing budget for WISN
- WISN extended to other districts and hospitals

Thank You



User's Manual for
Developing Workload Indicators of Staffing
Need (WISN)

To Improve Health Workforce Planning and
Management

2009

List of Contents

	Page
1. List of the abbreviations used in this manual	3
2. Introduction	3
3. Preparing for the WISN development process	4
4. Steps of the WISN Methodology	6
a. Choosing the staff category for WISN development	6
b. Estimating Available Working Time	7
c. Defining Workload Components	9
d. Setting Activity Standards	11
e. Establishing Standard Workloads	13
f. Calculating Allowance Factors	15
g. Determining staff requirements based on WISN	17
h. Examining WISN results and using them to improve staffing	18

List of Table

Table 1. Example of determining priority health worker category (or categories) and work unit(s) for WISN	7
Table 2. Example of health centre midwife's workload components	10
Table 3. Example of Service Standards for a health centre midwife	12
Table 4. Example of Allowance Standards for a health centre midwife	13
Table 5. Example of Standard Workload Calculations for a health centre midwife	14
Table 7. Example of a comparison of health workforce requirements in a district	19
5. Annexes	21
Template Table 1. Determining priority health worker category (or categories) and work unit(s) for WISN	21
Template Table 2. Work load components of a staff category	21
Template Table 3. Service Standards for a staff category	22
Template table 4. Allowance Standards for a staff category	22
Template table 5. Standard Workload Calculations for a staff category	22
Template table 6. Calculation of the staff requirement based on WISN	23
Template table 7. Comparison of health workforce requirements in a district	24

List of abbreviations used in this manual

Abbreviation	Explanation
AWT	Available Working Time
CAF	Category Allowance Factor
CAS	Category Allowance Standard
IAF	Individual Allowance Factor
IAS	Individual Allowance Standard
Health centre	Sub District Health Centre
SC	Steering Committee
TF	Task Force
WHO	World Health Organization
WISN	Workload Indicators of Staffing Need

List of the keys to the formulae used in this manual

Abbreviation	Explanation
K	Number of possible working days in a year
L	Number of days off for public holidays in a year
M	Number of days off for annual leave (including joint leave) in a year
P	Number of days off due to sick leave, training or other such reasons in a year
R	Number of working hours in one day

Introduction

Following decentralisation in Indonesia, most responsibility for planning and managing health human resources was handed over to the local governments. Local governments consist of both provincial and district governments, but unlike in many countries, the district does not come under the province. Both provincial and district governments, together with their respective health authorities, have a large role in managing human resources. Provincial and district governments have the authority and responsibility for the registration, accreditation, placement and movement of health personnel. They also have powers over the provision of in-service functional and technical training for health personnel in their respective geographic areas.

It is in the best interest of local governments to ensure the best possible staffing for their health facilities, since they now have substantial responsibilities for health service delivery. This requires examining whether the overall numbers and mix of different types of staff and the way they are distributed between different health facilities are appropriate. Different population groups may have different health seeking behaviour. Disease patterns may also vary between different geographic areas. The old ways of assessing and planning staff numbers, mix and distribution (staff per population ratios, fixed staff per facility) fail to take such differences into account. WISN (Workload Indicators of Staffing Need) is a better method because it calculates how many health workers (of different

types) are required in a health facility based on the current workload. WISN also makes it possible to examine how many personnel would be required if the workload increased or decreased in the future. Furthermore, it shows how the workload stress which health workers experience varies between different health facilities.

The WHO started the development of WISN methodology in Indonesia. The methodology has subsequently been refined through application in other countries. WISN was included in the Minister of Health Decree No 81/2004 on Workforce Planning. This decree is now being reviewed for revision.

This manual was written as a “how to” guide to make the WISN methodology easy to use at the local level. It will teach you (the reader) how to calculate workload indicators of staffing need AND use them to improve staffing in your local government area. An example of developing WISN for one staff category (health centre midwife) is woven through the text in order to clarify the different steps of the WISN methodology. The tables used in these examples are provided as empty templates in the annex to this guide.

Preparing for the WISN development process

WISN is a versatile tool and the scope of WISN development may vary from small to large. WISN can be used to examine only one category of staff in one or several different types of health facilities (e.g. nurses in health centre or nurses in health centre and hospital). It can also be used to examine several different categories of staff at the same time, such as specialists of different types in a provincial hospital. It is best to start small, even though the WISN methodology can be used in both small and large applications. The WISN scope and use may be enlarged later, as those developing WISN gain confidence in the methodology. The WISN process does not require finding more money. Existing provincial, district and hospital meetings can be used to develop WISN.

Setting up a Steering Committee (SC) at the start of the WISN process is essential. The purpose of WISN is to improve health facility staffing. For this to happen, the WISN results must be understood and accepted by those who can make changes in staffing. The membership of the SC should be carefully planned. The chiefs of the personnel section of the district government, planning office and health office, as well as local parliament members from the health committee are potential SC members because they are in a position to recommend and support WISN activities at the district level.

The SC has several important responsibilities in the WISN process:

- Define the priority areas for WISN development.
- Approve the initiation of the WISN process,.
- Review interim outputs.
- Examine final WISN results for validity and consistency.
- Request more in-depth study of results whenever validity or consistency is being questioned and,
- Take action on the approved WISN results to improve staffing.

The SC must be equipped for its role and responsibilities. A suggested way to do this is a one-day workshop. During this workshop, the participants are given a brief background to WISN and a description of the steps in the WISN methodology (not in detail, but sufficient to understand it). A

question and answer session is included to clarify points. An open discussion ends the workshop to begin exploring how the WISN results could be used to improve staffing when they become available and to cover any other topics, as necessary.

The actual WISN development is done by a Task Force (TF). The composition and size of the TF depends on the scope of the WISN effort. All TF members must be experienced and respected members of their professional group. The majority of the TF members should come from the type of health facility or work unit for which WISN is developed. The TF can be supplemented with other relevant experts, as necessary.

The TF may be “category-based” or “facility-based.” Category-based TF members represent one staff category working in a particular type of health facility. It is best used in developing WISN for a single staff category in only one type of health facility (e.g. nurse in hospital). Facility-based TF members represent a mixture of health professionals working in a particular type of health facility. This type of a task force is best used when developing WISN at the same time for several different staff categories in the same health facility or in different types of facilities (e.g. doctor, nurse, midwife and nutritionist working in a health centre). The TF can co-opt members or ask for additional information from others outside the TF, if it needs more expertise.

The role of the TF is to develop the WISN and determine the required staffing based on the workload indicators. To do this, the TF must collect and analyse data, develop standards, calculate results and present its findings to the SC. Therefore the TF should be adequately trained to use the WISN methodology. The TF training can be done in a three to five day workshop, covering all steps of the WISN methodology.

The length of the whole WISN process depends on its scope. The time needed to develop WISN for one staff category in a health centre will be much less than developing it for several categories in a hospital, for example.

Steps of the WISN methodology

You must first choose the staff category for which to develop the WISN. This is an important step as it clearly defines the scope of the WISN development. The available working time for the staff category must then be estimated. The next step is defining the major workload components of the staff category, and setting activity standards for each component. Based on these, you establish Standard Workloads for the particular staff category (or categories). Next, you calculate Allowance Factors which will have an impact on the required number of total staff. When all these steps are completed, you determine the staff requirements based on WISN. After WISN results are ready, they should be examined and used to improve staffing. Each methodology step is further explained in detail in the following text. One example is used to explain each step throughout the manual.

A. Choosing the staff category for WISN development

The WISN methodology can be used to calculate staffing requirements for all health workforce categories in all types of health facilities. In the real world, however, you do not have unlimited resources to do everything. You must set priorities for developing WISN, asking questions such as the following. How should we decide what health worker category or categories to start with? Should we focus on only one type of health facility where these workers can be found or include all the different types of facilities?.

You should consider several variables when deciding which staff category (or categories) and health facility (or facilities) to develop the WISN for. These include the severity of staffing problems (by category and facility type); which of these staffing problems have affected or are likely to soon affect quality of care and the capacity of the local health office and government to successfully undertake WISN development. You may want to start small, with only one staff category working in one type of health facility, in order to develop experience and confidence in WISN development. Later, more ambitious WISN work can be built on this experience.

EXAMPLE:

Table 1 is an example of how to list in a systematic way the health worker categories, their working locations and the reasons for choosing one or several of them for WISN development. The annex to this manual includes a template table which you can use in your own setting.

Table 1. Example of determining priority health worker category (or categories) and work unit(s) for WISN

Health facility	Work unit	Health worker category
District hospital (DH)	a. Inpatient wards (other than labour ward)	1. Doctor
		2. Nurse
		3.
		4.
		5.
	b. Labour ward	1. Doctor
		2. Nurse
		3. Midwife
		4.
		5.
	c.	1.
		2.
		3.
		4.
		5.
Health centre		1. Doctor
		2. Nurse
		3. Midwife
		4.
		5.
Reasons for choosing a staff category and work unit for WISN		A. No major staffing problems in inpatient wards in the district hospital
		B. Moderate shortage of nurses in the labour ward in the district hospital
		C. Too few midwives in health centres to cope with planned expansion in staffing
		D. Midwives in health centres complain about having to undertake non-midwifery tasks
		E.
		F.
Highest priority for WISN development: Midwife working in a health centre		

B. Estimating Available Working Time

The next step in the WISN methodology is to determine how much time a health worker in a particular staff category has available for doing his/her work. Health workers do not work every day. They are entitled to annual leave and time off on public holidays. They also get sick or have personal reasons for being absent from work on some days. This section teaches you how to calculate the time which the health worker actually has available for doing his or her work. The available working time can be expressed in days or hours per year. Both are needed for later calculations and you will learn to show the time in both ways.

First, record the number of possible working days in a year. One calendar year consists of 52 weeks. The possible working days in a year are calculated by multiplying 52 weeks by the number of days in a week which a person works. The table below shows calculations of possible working days in a year for two different health worker categories. The first Category (A) which works six days a week has 312 possible annual working days. The second Category (B) works five days a week. It has 260 working days in a year.

Health worker	Weeks in one year	Working days in one week	Possible working days in a year
A	52	6	52 weeks x 6 days per week = 312 days
B	52	5	52 weeks x 5 days per week = 260 days

Next, you must calculate the number of days which the health worker does not work. Every public servant is entitled to certain days off. List the reasons for such approved absences, for example public holidays and annual leave. Write down the number of days the health worker can take off next to each reason of approved absence. Note that the annual leave (12 working days) for civil servants in Indonesia already includes the joint leave days, so do not record joint leave separately.

You may or may not have precise data for the other important absences. These include sick leave and days off for training or due to personal reasons. If you do not have adequate information on the actual days away, you need to estimate them. Examine the personnel administrative notes of the work unit for the previous year. Identify the absences for reasons other than annual leave and public holidays or other entitled leave. Count the number of absence days by members of the health worker category for which you are developing the WISN. Divide the total absence days by the number of health workers in the staff category who work in the work unit. Use this average to calculate the Available Working Time (AWT) in a year.

To calculate the AWT, add together the total days of absence for the various reasons and deduct that sum from the total possible working days. The formula below shows this calculation mathematically.

$$\mathbf{AWT = K - (L+M+P)}$$

In this formula:

- K is the number of possible working days in a year
- L is the number of days off for public holidays in a year
- M is the number of days off for annual leave (including joint leave) in a year and
- P is the number of days off due to sick leave, training or other such reasons in a year

EXAMPLE:

You want to calculate the AWT for a midwife in a health centre. There are 52 weeks in a year and a midwife works 5 days in a week. She thus has 260 possible working days in a year (52 x 5). The previous year's calendar shows that there were 14 public holidays. The midwife is entitled to 12 days annual leave. By examining the personnel administrative notes you discover that a health centre midwife was absent last year an average of 24 days due to

illness, training and other such reasons. You add together all absence days and deduct from them the possible working days [260 - (14+12+24)]. This shows you that the midwife's annual Available Work Time is 210 days.

You calculated the available working time (AWT) in working days per year using the above formula. You must next translate this to working hours per year. The formula for doing this is below.

$$\text{AWT} = [K - (L+M+P)] \times R$$

In this formula, R is the number of working hours in one day.

Remember that some categories of staff may work different hours on different days of the week. A midwife in a health centre may work certain hours from Monday to Thursday but different hours on Friday, for example. In such a case, you must calculate the average number of working hours per working day. Add together all the working hours of the midwife in one week and divide the total by the number of days which she works in one week.

EXAMPLE:

A midwife in a health centre works 36 hours in one week in five working days. She thus works on average 7.2 hours each day (36 divided by 5). The midwife has 210 available working days in a year (her AWT). Her Available Working Time in working hours per year is 1512 (7.2 multiplied by 210).

Different work groups may have different working schedules, even if they work in the same health facility or health service unit. For example, an administrative work group in a district hospital may work five days a week. In contrast, health workers in service units where 24 hour coverage is essential (such as inpatient wards or ICU) may follow a six day staffing pattern. Make sure that you base the calculation of the AWT in working hours on the actual scheduling pattern of the health worker category for which you are developing the WISN. However, you also need to closely examine the allotted days off for people working on shifts. There is a possibility that those who are thought to be following a six day staffing pattern are actually receiving two days off in a week, the same as those on a five day staffing pattern.

C. Defining Workload Components

You have now finished calculating how much time one health worker has available in one year to do his or her work. The next step is to identify the work activities that take up most of the health worker's daily working time. These are called his or her "workload components".

The workload components are classified into three groups:

1. Main health service activities are carried out by all members of the health worker category. Regular statistics are collected on them.
2. Important support activities are carried out by all members of the health worker category. Regular statistics are not collected on them.

3. Other activities are carried out by certain (but not all) members of the health worker category. Regular statistics are not collected on them.

Workload components should be the most important activities in a health worker's daily schedule. Each activity has its own, separate time demand. A midwife, for example, cannot provide antenatal care at the same time as she attends to deliveries. Therefore all activities must be listed separately.

EXAMPLE:

Table 2 below provides an example of some workload components of a health centre midwife in a fictional district called Rajasa. You find a template table in the Annex. You can use it to list the workload components of your own WISN health worker category (or categories).

Table 2: Example of health centre midwife's workload components

Staff category: Health centre midwife in Rajasa district			
Workload group		Workload component	
1.	Main health service activities of all health centre midwives	a.	Antenatal care
		b.	Deliveries
		c.	Postnatal care (including neonatal care)
		d.	Family planning
		e.
2.	Important support activities of all health centre midwives	a.	Reporting and recording
		b.	Meetings
		c.	Home visiting
		d.
3.	Additional activities of certain health centre midwives	a.	Supervision of midwifery students
		b.	Attending continuing education
		c.	General administration
		d.

The longer the list of workload components, the higher the cost of developing WISN, in terms of time and effort. A very detailed list of workload components will obviously bring more accurate final WISN results than a less detailed one. The added accuracy is, however, rarely worth the increase in cost and effort. Adding workload components which use up very little of a health worker's daily working time makes only a very small difference to the final calculation of required staff. Experience has shown that four to five main service activities and three to four support activities are sufficient to cover the majority of working time for most health worker categories.

You may find that the first time a Task Force is developing WISN, it wants to include all workload components in the list, even those which consume very little working time. The Task Force is likely to be more willing to reduce the list later, after it gains experience and begins to see how little difference some components make to the final calculations of required staff.

D. Setting Activity Standards

In the previous steps, you calculated how much time a health worker has available for work and defined the components of that work. Now you need to determine how much working time these various activities take if they are performed well. This is called developing Activity Standards. This section of the user's manual teaches you how to develop Activity Standards for the three different types of workload components.

An Activity Standard is defined as follows:

An Activity Standard is the time necessary for a well trained, skilled and motivated worker to perform an activity to professional standards in the local (Indonesia and province/district) circumstances.

There are two different types of Activity Standards, namely Service Standards and Allowance Standards. They are used differently in calculating the final human resource requirements based on WISN.

Service Standards are Activity Standards for those activities for which annual statistics are regularly available. They are measured as the average time a health worker needs to perform the activity.

You set Service Standards for the main service activities of a health worker. These standards are expressed either as unit time or as rate of working. A Service Standard for antenatal care by a health centre midwife, for example, can be shown as "fifteen minutes per pregnant woman" (unit time). Alternatively, it can be expressed as "twelve pregnant women seen during a three-hour antenatal clinic" (rate of working).

In setting the Service Standard, the time is counted from the start of one activity up to the start of the next similar activity. For example, a Service Standard for antenatal care by a health centre midwife is measured from the start of her providing antenatal care to one client up to her starting the same service for the next client. The time required to complete all work related to the service activity when it is delivered is included in the estimate. If the midwife, for example, has to complete a medical record for each antenatal client or prepare equipment for the next client, the time taken is included in the Service Standard.

Notice that the health worker has to be well trained, skilled and motivated and that the work has to be performed to professional standards within local circumstances. A poorly trained or poorly motivated worker will take longer to perform an activity than a trained, well-motivated one. Time spent on a particular activity is also related to the quality of the service. Health care can be provided more quickly if certain aspects of the service are left out or performed hurriedly. A service of this kind, however, would not meet professional standards. You should make sure that you apply professional standards, appropriate to the local situation, when you define the Service Standards.

EXAMPLE:

Table 3 below gives an example of Service Standards for a midwife working in a health centre.

Table 3: Example of Service Standards for a health centre midwife

Staff category: Health centre midwife in Rajasa district	
Main health service activity	Time needed to perform the activity
1. Antenatal care	20 minutes per patient
2. Deliveries	8 hours per patient
3. Postnatal care (including neonatal care)	2 hours per patient
4. Family planning	30 minutes per patient

Next you must set Allowance Standards for the important support activities of all health workers in the WISN category and for the additional activities of only certain workers in that category. These are called Category Allowance Standard (CAS) and Individual Allowance Standard (IAS), respectively.

Allowance Standards are Activity Standards for those activities for which annual statistics are not regularly collected.

Allowance Standards are shown either as a percentage of working time or actual working time. Recording and reporting is an important support activity of many health workers. The Allowance Standard for that support activity can be shown as “fourteen percent of working time” or as “one hour per working day” (where the average working day is 7.2 hours).

The workload components and the Activity Standards are defined by your Task Force. If your Task Force is category-based, its members are very familiar with the training and professional standards of the health worker category for which you are developing the WISN. They bring many years of experience in undertaking the activities in each workload component. By working together, a category-based Task Force is generally able to estimate with reasonable accuracy how long, on average, each workload component takes when it is performed to professional standards.

If your Task Force is facility-based, it consists of several different health worker categories. Such a Task Force may need to be supported by expert groups in defining the Activity Standards and possibly even in determining the workload components. This is because a facility-based Task Force may not possess sufficient breadth and depth of expertise and experience in the work of all health worker categories for which the Task Force is developing the WISN.

EXAMPLE:

Table 4 is an example of Allowance Standards. An empty template table is in the annex for your own use.

Table 4: Example of Allowance Standards for a health centre midwife

Staff category: Health centre midwife in Rajasa district	
Important support activities of all health centre midwives	Allowance Standard
1. Recording and reporting	30 minutes per day
2. Meetings	2 hours per month
3. Home visits	3 hours per week
Additional activities of certain health centre midwives	Allowance Standard
1. Supervision	2 hours per one supervision four times a year; one midwife
2. Attending continuing education	6 days per year; three midwives
3. General administration	2 hours per week; one midwife

E. Establishing Standard Workloads

You have now worked out how much time a trained and motivated health worker requires to perform the main service workload components to an acceptable professional standard. This section teaches you how to determine Standard Workloads based on this information.

Standard Workload is the amount of work (within one main service activity) which one health worker can do in a year.

Standard Workloads are established for all main health service activities. The calculation of a Standard Workload assumes that during the year, the health worker undertakes only the activity for which the Standard Workload is developed. In the real world, of course, health workers undertake several different kinds of activities during their working day or year. The final calculation of required staffing based on WISN takes this into account.

The formula used to calculate the Standard Workload for a service activity depends on whether the time of the Service Standard is expressed as unit time or as rate of working.

Use this formula if the Service Standard is shown as unit time:

Standard Workload = AWT in a year divided by the unit time for the activity

Use this formula if the Service Standard is expressed as rate of working:

Standard Workload = AWT in a year multiplied by the rate of working

Make sure that the Available Working Time, unit time and rate of working are expressed in the same time unit. Your calculations will be wrong, if you multiply AWT in days by a unit time in hours, for example!

EXAMPLE:

Table 5 presents an example of calculating Standards Workloads for some workload components of a health centre midwife. A template table is in the annex.

Table 5: Example of Standard Workload Calculations for a health centre midwife

Staff category: Health centre midwife in Rajasa district		
AWT in a year: 1512 hours		
Main health service activity	Time needed to perform the activity	Standard Workload
1. Antenatal care	20 minutes per patient (= 0.33 hours)	4536
2. Postnatal care (including neonatal care)	2 hours per patient	756
3. Deliveries	8 hours per patient	189
4. Family planning	30 minutes per patient (= 0.5 hours)	3024

Time (minutes)	Time (decimal)
45	0.75
30	0.50
20	0.33
10	0.17

Note: remember that time calculations can be confusing if combined with the use of decimal notations

F. Calculating Allowance Factors

In the previous step, you established the Standard Workloads (the amount of work which one health worker can do in a year) for all main health service components of the workload. The health information system routinely collects data on all these services. Health workers are, however, also required to undertake other important activities for which annual statistics are not collected. This section of the manual teaches you how to take account of the time which all or some health workers in your WISN staff category devote to performing such activities. You learn how to turn the Allowance Standards you set earlier into Category and Individual Allowance Factors. You use these Factors to calculate the total required number of health workers in the next step of the WISN methodology.

In Section D of this manual, you developed Allowance Standards for two groups of activities. The first group includes the important activities which all health workers in the WISN staff category perform, but for which annual statistics are not available. The second group consists of additional activities of only

certain members of the staff category. You must calculate an Allowance Factor for each group separately. The Factor for the first group is called a Category Allowance Factor (CAF). That of the second group is called an Individual Allowance Factor (IAF). The two Allowance Factors are calculated differently and also applied differently in calculating the total required health workers based on WISN.

The Category Allowance Factor will be used as a multiplier in determining the total required health workers in the next WISN step. The CAF is calculated in the following manner:

- Convert the Category Allowance Standard of each important support activity to a percentage of working time,
- Add together the percentages for all Category Allowance Standards and,
- Use the mathematical formula below to derive the CAF from the sum of the percentages.

$$\text{CAF} = 1 \text{ divided by } [1 \text{ minus (Total CAS percentage divided by 100)}]$$

This formula is often the most difficult part of the WISN methodology for trainees to grasp. Why do we need to calculate a multiplier? The reason is that the activities covered by Category Allowance Standards are performed by all members of a health worker category. So each additional staff will also perform those activities. For adequate staffing, you need enough health workers to cover both the time your current staff spend on the important support activities and the time each additional health worker would spend on them. In case of a staff shortage, it is not sufficient to add only enough health workers to cover the working time of the support activities, because each added health worker also uses up part of his/her working time on the same activities.

EXAMPLE

You want to calculate the Category Allowance Factor for a health centre midwife. You start by converting all Category Allowance Standards into percentages of working time. (You must again be careful that all the times in your calculations are expressed in the same time units.) You start by converting the CAS of recording and reporting to a percentage of working time. You can do it in two ways. Both give the same result.

The first calculation is as a percentage of the total annual working time. You estimated that a midwife spends 30 minutes (0.5 hours) every day on reporting and recording. She works 210 days in a year. She thus spends 105 hours in a year on reporting and recording (0.5 multiplied by 210). You know from earlier calculations that a midwife works 1,512 hours in a year. The percentage of her working time for reporting and recording is 6.9% (105 divided by 1,512 multiplied by 100).

The second calculation is as a percentage of the total daily working time. A midwife spends 30 minutes (0.5 hours) on reporting and recording in a day. From estimating her AWT, you know that she works 7.2 hours a day on average. The percentage of her working time for reporting and recording is again 6.9% (0.5 divided by 7.2 multiplied by 100).

Next, you add together the percentages of time spent on all important support activities. You discover that together they take up 33% of a midwife's time. In other words, she spends one third of her available working time on these activities (33 divided by 100). This leaves the midwife only two thirds (1 minus 0.33 or 0.67) of her time for the main health service activities.

You, however, need enough midwives to cover both types of activities.

You apply the formula $[1 \text{ divided by } (1 \text{ minus } 0.33)]$ and get 1.5. You have just worked out that in order to cover both health service and important support activities, you require 1.5 midwives for every one midwife you would have needed for the main health service activities alone.

The Individual Allowance Factor takes account of the working time which certain health workers in your WISN staff category spend on additional activities. The IAF calculates how many workers are required to cover these activities as “whole time equivalent” (WTE) staff. The IAF is added in the final calculation of the total required staff. It is calculated as follows:

- Add together all Individual Allowance Standards.
- Multiply the sum by the number of individuals who perform the activity.
- Divide the result by the Available Working Time (AWT).

If the number of health workers performing an activity varies between activities, you must do the calculation separately for each set of activities done by the same number of health workers and then add them together. Be careful to use the same time units for Allowance Standards and Available Working Time.

EXAMPLE

Three midwives in your health centre spend six days per year attending continuing education. Each midwife works 7.2 hours, so a total of 43.2 working hours are needed for this activity in a year (6 multiplied by 7.2). Because three midwives each spend time on continuing education, the total time is 129.6 hours per year (3 multiplied by 43.2). You calculated earlier that a midwife’s AWT is 1,512 hours a year. To cover the time of the three midwives, you need 0.09 WTE midwives (129.6 divided by 1,512). In other words, the IAF is 0.09 WTE midwives.

The IAF you calculated above is very small. It will not make a significant difference to the final total of midwives you require. A large IAF would increase the staff requirement. It would still increase it less than if all health workers performed the activity, not only a few of them.

G. Determining staff requirements based on WISN

You are now ready to determine how many health workers you require in total to cope with all the different components of the current workload of your WISN staff category (or categories) in your health facility (or facilities). To do this, you need the health facility’s annual service statistics for the previous year. You require them for all the main service activities for which you calculated a Standard Workload.

You determine the total staff requirement separately for the three different types of activities:

Main service activities: Divide the annual workload of each activity by its respective Standard Workload. This gives you the health workers required for that activity. Add the requirements of all activities together to get the total staff requirement for all main service activities.

Important support activities done by all: Multiply the staff requirement of the main service activities by the Category Allowance Factor. This gives you the health workers required for all service and important support activities.

Additional activities of certain staff members: Add the Individual Allowance Factor (in WTE) to the above staff requirement. This gives you the final total staff requirement based on WISN. It takes into account the total staff which is required to undertake all three types of activities.

EXAMPLE

You want to calculate how many midwives your health centre requires to cope with its workload. Your annual statistics show that the health centre served 1,124 antenatal clients and did 267 deliveries last year. The Standard Workloads you previously worked out for these two main service activities were 4,536 for antenatal care and 189 for deliveries. You need 0.25 midwives to cover antenatal care (1,124 divided by 4,536) and 1.41 midwives for deliveries (267 divided by 189). In total, you need 1.7 midwives (0.25 plus 1.41).

Next you multiply the total staff required for main service activities by the Category Allowance Factor. This is to make sure that you have sufficient health workers to cover both the main service activities and the important support activities of each worker. You calculated above that you need 1.7 midwives for main services. The CAF which you worked out earlier is 1.5. You thus need 2.6 midwives to cover both activities (1.7 multiplied by 1.5).

You also need to cover the time spent on additional activities by certain health workers. To do this, you add the staff required for these additional activities (the IAF) in WTE to the above staff requirement. The IAF you worked out earlier is 0.09. The final total number of midwives that you require for all three types of activities is 2.7 (0.09 plus 2.6).

Template Table 6 in the Annex is summary table, which you can use to calculate the total staff requirement based on WISN.

The total required staff number which you calculated is likely to be a fraction. You need to round this to a whole number. The impact of rounding it up or down is much greater for a health facility with only a few workers in the WISN staff category than in a better staffed facility. For this reason, it is advisable to be more generous in rounding up a final calculated staff requirement of one or two than a larger number. You can use the guide below in rounding up or down the total required staff numbers you determine in your WISN calculations.

- 1.0 - 1.1 is rounded down to 1 and >1.1 – 1.9 is rounded up to 2
- 2.0 – 2.2 is rounded down to 2 and >2.2 – 2.9 is rounded up to 3
- 3.0 – 3.3 is rounded down to 3 and >3.3 – 3.9 is rounded up to 4
- 4.0 – 4.4 is rounded down to 4 and >4.4 – 4.9 is rounded up to 5
- 5.0 – 5.5 is rounded down to 5 and >5.5 – 5.9 is rounded up to 6

H. Examining WISN results and using them to improve staffing

You have now finished calculating the total number of health workers you require to cope with the workload in your health facility. If you are responsible for looking after several health facilities or you have a role in human resource management of a province or a district, you must now examine the results and use them to improve the staffing of your facilities. Otherwise all the effort on developing WISN will be wasted.

You should first compare current staff numbers with the calculated required staff numbers in different health facilities of the same type. For example, examine current and required midwifery staffing of the different health centres in your district. Questions that you should consider as you examine the WISN results include:

- Which health facilities have a surplus of health workers according to WISN?
- Which ones have a gap?
- How big are the surpluses or gaps?
- What possible explanations could there be for such differences?
- Could you improve the staffing level in a poorly staffed health facility by transferring workers from a better staffed one?
- Is the activity level of the facility low? If yes, why?

Next you should calculate the WISN ratio by dividing the current number of health workers in a health facility by the required number.

The WISN ratio is a proxy measure of the work pressure which health workers experience in their daily work in a health facility.

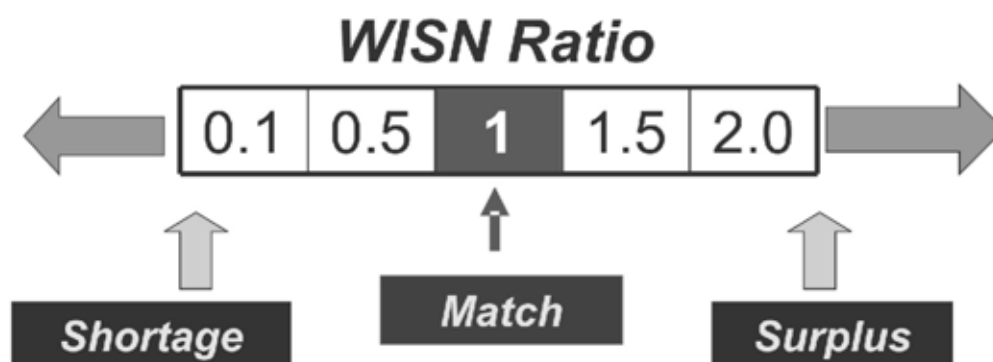
A WISN ratio of one (1) indicates that the number of staff and the workload of a health facility are in balance. The smaller the WISN ratio, the bigger the work pressure. A small WISN ratio shows that the current number of staff is smaller than what is required to cope with the workload. Conversely, a large WISN ratio is evidence of overstaffing in relation to the workload.

EXAMPLE:

Table 7 shows how you can compare WISN ratios of health facilities in your area. A template table is in the annex.

Table 7: Example of a comparison of health workforce requirements in a district

Health	Current number of staff	Required number of staff from WISN	Shortage or excess	Workforce problems	WISN Ratio	Workload pressure
A	5	6.3	-1.3	Staff shortage	0.8	High
B	3	1.5	+1.5	Staff surplus	2.0	None
C	12	10	+2.8	Staff surplus	1.2	None
D	8	8	0	Perfect match	1.0	Normal



Look again at your health facilities. Which health facilities have a balance between staffing and workload? In which facilities are the health workers under most workload pressure? Which facilities appear to be overstaffed?

The WISN ratio also helps you to look at implications of staffing for quality of care. Facilities with a low WISN ratio may be forced to “cut corners” to deal with their workload. This may have serious implications for the quality of the services they provide. Health workers in a facility with a high WISN ratio, in turn, should have adequate time to provide good quality services. If this is not the case, you want to explore the reasons for poor performance further and then take advantage of the adequate staffing to improve service quality.

It is very easy to be misled by merely reading the numerical WISN results. To avoid falling into this situation, you must ask several important questions when you examine the WISN results. When there is a shortage of personnel in a certain category, is the WISN calculation based on the health workers using most of their time for professional tasks? Alternatively, are these workers doing a significant amount of other tasks which may be important but not related to their professional training?

Accept the WISN results if you find out that the health workers are indeed carrying out their main professional tasks. Consider how to increase the personnel in the staff category in this case. If the time spent on the main professional tasks is not enough, however, the health workers use a significant amount of their available work time on other tasks. The number of personnel in this category may actually be sufficient if only the workers could focus on doing their main professional tasks.

You have two options: either leave the non-professional tasks as the responsibility of the original staff category or transfer them to a more appropriate one. If the tasks remain with the health workers for whom you calculated the WISN, you need more health workers in that category. If you transfer the tasks, you have to work out how many workers in the more appropriate category you need to take over the tasks. Use the WISN to calculate the required number.

In case of overstaffing, the danger is to jump immediately to the conclusion that staff need to be transferred out. Evaluate the scope and quality of health services being provided by the overstaffed health facility before moving any staff. Improve the quality of the services in the facility, if there is the potential to do so and you will not seriously deprive understaffed facilities of needed staff. You should also consider whether you could expand existing services or start new services by using the excess staff. Exhaust such service optimisation efforts before you consider staff transfers because moving people around is not an easy task.

Carrying out WISN at the same time for several staff categories working in the same type of health facility provides an excellent opportunity to examine the work of the whole (or a major part) of the facility. The Task Force members come together several times during the WISN process. Joint presentations of their work allow the different groups to examine closely where they have conflicting tasks, overlapping duties or even gaps in the provision of services which reduce the quality of the services.

You can take action to refine the WISN calculations if you or your colleagues feel that they are not sufficiently accurate. You can come up with more accurate Activity Standards by directly observing work activities or doing a time and motion study. Always remember, however, that achieving high accuracy carries a certain cost. You must consider whether the increased accuracy is worth this added cost.

ANNEX OF TEMPLATE TABLES FOR WISN DEVELOPMENT

Template Table 1. Determining priority health worker category (or categories)

Health facility	Work unit	Health personnel category
Reasons for choosing a staff category and work unit for WISN		
Highest priority for WISN development:		

Template Table 2: Work load components of a staff category

Staff category:	
Workload group	Workload component
1. Main health service activities of all members of the staff category	a.
	b.
	c.
	d.
	e.
2. Important support activities of all members of the staff category	a.
	b.
	c.
	d.
	e.
3. Additional activities of certain members of the staff category	a.
	b.
	c.
	d.
	e.

Template Table 3: Service Standards for a staff category

Staff category:	
Main service activity	Time needed to perform the activity
1	
2	
3	
4	
5	

Template table 4: Allowance Standards for a staff category

Staff category:	
Important support activities of all health centre midwives	Allowance Standard
1	
2	
3	
Other activities of certain members of the staff category	Allowance Standard
1	
2	
3	

Template table 5: Standard Workload Calculations for a staff category

Staff category:		
AWT in a year:		
Main health service activity	Time needed to perform the activity	Standard Workload

Template table 6: Calculation of the staff requirement based on WISN

Staff category:				
AWT				
		Annual workload	Standard Workload	Required staff
Main health service activities of all members of the category	a			
	b			
	c			
	d			
	e			
	f			
A. Total required staff for health service activities				
Important support activities of all members of the category			Category Allowance Standard	% of working time
Total CAS percentage for all workers in the staff category				
B. Category Allowance Factor [1 divided by [1 minus (Total CAS percentage divided by 100)]]				
Additional activities of certain members of the category		Individual Allowance Standard		Number of staff performing activity
	a			
	b			
	c			
C. Total WTE of certain workers (Sum of IAS multiplied by number of staff divided by AWT)				
Total staff requirement based on WISN (A multiplied by B plus C)				

Template table 7: Comparison of health workforce requirements in a district

Health Centre	Current number of staff	Required number of staff from WISN	Shortage or excess	Workforce problems	WISN Ratio	Workload pressure

Outline of
Training of WISN Trainers
(Training of Trainers)

2009

Table of Contents

Topic	Page
I. Introduction	3
A. Background	3
B. Training Philosophy	3
C. Overall Objective	3
D. Specific Objectives	3
II. Tasks and Competences	3
A. Tasks	3
B. Competences	4
III. Flow of Learning Process	4
IV. Methodology	4
V. Trainees and Facilitators	5
A. Trainees	5
B. Facilitators	5
VI. Facilities and Equipment Required	5
VII. Evaluation and Certification	5
A. Evaluation	5
B. Certification	6
VIII. Example of Training Programme	6
Example of Pre Test	8
Example of Post Test	9

I. INTRODUCTION

A. Background

The introduction of the Workload Indicator of Staffing Need (WISN) method as a tool for a more accurate estimation of workforce needs in the health sector in East and West Nusa Tenggara provinces of Indonesia was met with a high level of enthusiasm by the provincial and district health offices, and also by the health workers themselves. This has led to an increasingly growing demand for more and more facilitators to assist health worker teams in learning WISN properly and implementing it successfully for better overall HR planning results.

Therefore, a special training of trainers (TOT) module is a necessity. This outline of a training module is designed for use with personnel who have completed the basic WISN training and who have used it successfully in their work environment.

B. Training Philosophy

The TOT is carried out according to adult education principles, which respects and recognizes the experience of each trainee. The course aims to build on this experience to develop competence through use of a variety of teaching methodologies within the context of a participatory approach.

C. Overall Objective of TOT

To train personnel who already have experience in utilizing the WISN workforce planning methodology to confidently and effectively teach the methodology to other personnel in a variety of health facilities.

D. Specific Objectives of TOT

- To identify the difficulties that the trainees have experienced in utilizing WISN;
- To provide a refresher in the methodology to address these difficulties;
- To develop competence to help other personnel to overcome problems in understanding and calculating WISN Ratios;
- To identify appropriate teaching /learning methodologies that can be used to allow the trainees to communicate the WISN methodology effectively to taskforces of all categories in a variety of health facilities.

II. EXPECTED TASKS AND COMPETENCES

A. Tasks

After following the TOT training, trainees will be able to function either as individual trainers or members of a Training Team with the following tasks:

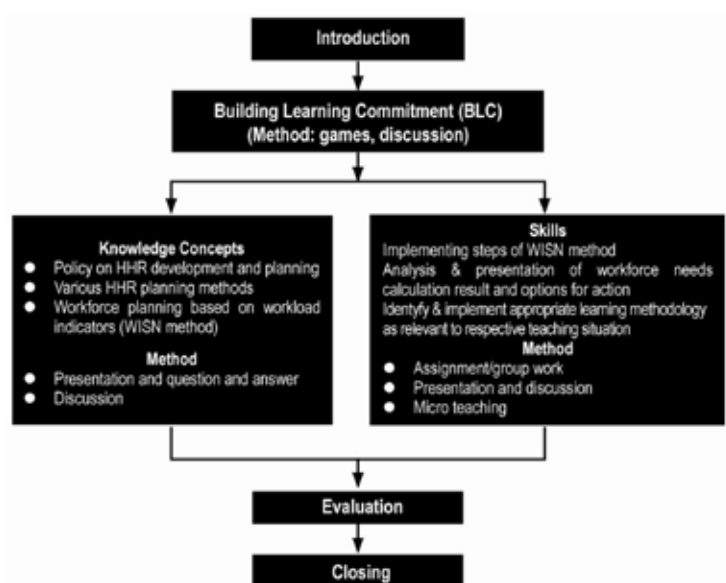
- To facilitate policy decision makers in planning workforce needs based on workloads using the WISN method.
- To facilitate training in the WISN method, for those responsible for workforce planning needs, which are based on workload indicators.

B. Competencies

To be able to carry out their tasks, trainees should be competent to:

- Implement the WISN method in a variety of environments.
- Train task forces to implement the WISN methodology in a variety of environments.
- Adapt the learning method and techniques to individual situations.
- Prepare task forces to present findings to decision makers.

III. FLOW OF LEARNING PROCESS



IV. METHODOLOGY

The stages of the learning process are as follows:

1. A Pre-test is held at the start of the training.
2. Explanation of the objectives of the course.
3. Motivating trainees and building a Learning Commitment.
4. Identification of constraints and difficulties in understanding and applying WISN, explanation of the training process mechanism and its application to addressing these difficulties.
5. Review WISN process using the WISN Manual with special attention to the constraints and difficulties identified.
6. Presentation of Basics of Communication Skills and their application to teaching WISN
7. Use of energizers, exercises, micro teaching, and discussion.
8. A Post-test is held at the end of the training.

V. TRAINEES AND FACILITATORS

A. Trainees

The trainees of this training meet the following criteria:

- Responsible person for HHR planning.
- Experienced health professionals and non technical personnel working in health services in line with goals.
- Have attended a WISN training and utilized the methodology in health facilities.

B. Facilitators

Facilitators of this training come from:

- Experts in planning HHR needs.
- Have experience in facilitating training of HHR needs planning.
- Have experience in both using and teaching WISN.

VI. FACILITIES AND EQUIPMENT REQUIRED

The learning process with the above method needs a place that has the appropriate training support facilities. So these training activities could be held at the Central, Provincial or District Training Centres. The room used for training should be well lit and ventilated and comfortable for the participants and trainers.

Ideally training is conducted for a minimum of three days, but, depending on staff and trainers availability, individual situational needs as well as available funding, may be extended to five days.

Equipment and Resources

- WISN toolkit and any standard reference material.
- Overhead projector/LCD projector, flipcharts or white boards and respective writing utensils.
- Relevant forms needed in the training process.

VII. EVALUATION AND CERTIFICATION

A. Evaluation

Evaluation, consist of evaluation of training participants, comprising of:

Pre-test and Post test (see Annex 1 for example). The pre-test aims to identify the constraints and problems that the trainees experienced in understanding and using WISN. The Post-test measures whether the problems and constraints have been addressed.

B. Certification

Every trainee declared as having passed the TOT Training is entitled to receive a training certificate. The prevailing rules and regulations of each country must be observed, [for Indonesia the following is in force: the certificate will have a value of 1 (one) credit for 30 – 80 lecture hours (Minister of Apparatus Orderliness Decree # 126/1990 on the Guidelines of Arranging and Recruiting Functional Staff and their Credit Values).

VIII. Example of Training Programme

(Note: during the training, coffee and lunch breaks should be strategically spaced to coincide with changes in training subjects, times for rest, reducing stress etc; Energizers should be given at strategic moments as appropriate.)

Day One

- Welcome to Trainees.
- Pre-test (refer to Annex 1).
- Official Opening (if applicable).
- WISN film.
- Provide copies of the WISN toolkit to each trainee.
- Introduction to the course (facilitator can do a quick analysis of the Pre-test while a colleague is giving the introduction).
 - Objectives of course and expected outcomes
 - Background to Health Workforce Planning including Policies, Planning methodologies (e.g. Decree 81).
 - Why WISN?
 - Experiences in implementing WISN to date and the benefits (refer to the Guide to using WISN particularly Step 5 and the Case Study).
 - Pinpointing problems experienced in previous understanding and utilizing WISN.
- Presentation of Summary of results of Pre-test (Example: Identify X% had problems with Step 2 or Step 5 and the reasons given for the difficulties, e.g. not enough time in teaching, insufficient explanation, trainer unsure etc.).
- Discussion on the results and how these issues will be addressed during this training.
- Energizer.
- Basics of Communication Skills and their application to teaching WISN (this can include games, exercises and role play related to communication skills).

Day Two

- Refresher on WISN, (All day).
 - Using the Manual, the Methodology is reviewed with each step taught in logical sequence.

(Facilitators structure this day based on findings from the pre-test - if ALL participants had problems with a particular step then one of the facilitators goes through this step in detail and then asks some participants to teach this step to small groups and the small groups provide feedback on how it was explained...was it clear or not. The Participants then discuss together which method or methods did they find were the most effective ways to teach this step. Where appropriate refer to communication skills from previous day and how they would use these skills to teach particular steps of WISN.
 - Use power point slide presentation with participatory approach to address learning problems.
 - At each WISN step, refer to pre-test results and the trainees who previously had problems; then ask the trainees who did NOT have the problem to explain to the ones who did had problems. This can be done in a plenary or in small groups. (This can be planned by facilitators based on results of Pre-test).
 - If they now understand, discuss how it was explained, and the differences with the first explanation. The aim is to identify the appropriate methods for different situations.
 - Reinforce understanding where calculations errors occur.
 - How to adapt the teaching to deal with a large number of different categories of health workers such as in Hospitals.

Day Three

- Post-test. (See Annex 1) (analysis can be undertaken while next session is being held).
- How to identify questions to ask related to WISN calculations results to ensure correct calculations (Refer to Manual Section H and Guide Step 2.5).
- How to select and present results in an appropriate manner to decision makers.
- Benefits of WISN (refer to Guide Step 5).
- Recap of areas which some trainees may still be unsure of teaching based on feedback from Post-test.
 - Does everyone now understand and feel confident?
 - Where can they get support if they feel unsure of teaching WISN for the first time?
 - Trainers supporting each other.
- Closing remarks.
- Official closing by appropriate official.

Example of Pre test

Name

Work Unit

WISN Steps

1. Choosing the staff category for WISN development
2. Estimating Available Working Time
3. Defining Workload Components
4. Setting Activity Standards
5. Establishing Standard Workloads
6. Calculating Allowance Factors
7. Determining staff requirements based on WISN
8. Examining WISN results and using them to improve staffing

Please answer the following questions:

- Which of the steps of WISN listed above did you have the most problems with, particularly in understanding and calculations when you were first trained to apply the method?
- What do you consider was the reason for this difficulty?
- Having now used WISN in your health facility, do you still have the same problems in understanding the steps?
- Were there any factors that helped you to overcome your difficulties?
- Do you still have difficulties in understanding some of the calculations?
- How do you think that you can help other health workers that you train to overcome difficulties with some of the steps during training?

(Comment: The information from the Pre-test can be analysed while the Introduction to Workforce Planning is given during the first session, and summary of results presented to participants after the break).

Example of Post Test

Name

Work Unit

WISN Steps

1. Choosing the staff category for WISN development
2. Estimating Available Working Time
3. Defining Workload Components
4. Setting Activity Standards
5. Establishing Standard Workloads
6. Calculating Allowance Factors
7. Determining staff requirements based on WISN
8. Examining WISN results and using them to improve staffing

Please answer the following questions:

- Which of the steps of WISN did you have the most problems with, particularly in understanding and calculations when you were first trained to apply the method?
 - Have these difficulties been addressed? Yes / No
- a. (if Yes) What helped you the most to overcome the difficulties?
 - b. (If No) What else do you think would help you to overcome the difficulties?
- How would you rate your confidence in teaching this/these steps to others now?

(Please tick relevant box)

- Fully confident to teach it alone
- Confident to teach it as a member of a training team but not alone
- Unsure
- Not confident
- Do not want to be a trainer